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Review of Essential Amendments in Indian Higher Education with Special Reference to COVID-19 Pandemic and National Education Policy (NEP) 2020

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Abstract. India's aspirations to become a major player in the global knowledge economy are fundamentally dependent on high-quality higher education. The availability of faculty with the necessary skills is a must for the global scope of Indian ventures. These goals have been placed on hold because of the COVID-19 pandemic. The pandemic has affected higher education around the world. In India, it halted the implementation of visionary provisions of National Education Policy (NEP) 2020. It has led to unanticipated challenges in continuing the educational activities as Indian higher education continues to suffer from inadequate access to technology. As such, this review paper discusses Indian higher education from a historical perspective to the current situation, with a special focus on NEP 2020 modifications that are have been proposed to improve the education system. It primarily concentrates on the difficulties that Indian higher education faced in the wake of the COVID-19 pandemic. This paper also explored the opportunities and the necessary adjustments and alterations that may be needed for a smooth and qualitative delivery of higher education in light of visionary NEP 2020 provisions.

Keywords: Indian Higher Education; Essential Amendments; Delivery; COVID-19; National Education Policy (NEP) 2020

1. Introduction

The development of a country relies on the nature of human resources, which is results from the quality of education and training. It enriches individuals with a capacity to think about social, financial, moral, cultural, and other worldly issues and contributes towards improvement through development of the required knowledge, information, abilities, and perspectives. Education in India dates to its early civilization where the teaching-learning process revolved around the

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'Gurukul System' (Tilak, 2018), which was a residential concept, in which the students were educated under the guidance of a guru. Over the years, India has faced several challenges in improving the quality of education, but it has also provided opportunities to overcome those challenges and build a better system. However, the system requires better answerability and precision. Continuing research in science of learning techniques is of utmost importance. India provides highly skilled people to other countries in the form of brain-drain and therefore, is in dire need of well-skilled and highly educated people who can develop its economy and move the country from a developing nation to a developed one. But, with the outbreak of COVID-19 pandemic, the functioning of all the industries has changed, especially the education sector. The COVID-19 pandemic has affected higher education around the world and burdened it with considerable challenges. The entire educational systems starting from pre-primary to research has been impacted during the emergency and prolonged lockdown, not only in India, but across the globe. Under such circumstances, the Indian educational system needs to look forward to an intellectually enriched opportunity for the future academic decision-making.

2. Research Purpose and Method

Recognising the need for amending the Indian higher education, this review paper has been developed. The paper discusses the Indian higher education from a historical perspective to the present scenario keeping in view the various kinds of amendments proposed in the National Education Policy (NEP) 2020. The latter primarily concentrated on the difficulties that the Indian higher education faced in the wake of the COVID-19pandemic. This paper also explored the opportunities and the necessary adjustments and alterations that may turn fruitful for smooth and qualitative delivery of higher education in the future in the light of visionary NEP 2020 provisions.

To meet the purpose of the review paper, systematic review method has been adopted. Secondary data were used in the form of research articles and books. Existing literatures were searched in all the major repositories based on the keywords. Initially 73 documents were collected. After developing the selection criteria namely, evolution of Indian higher education starting with *Gurukula* system to present time; the NEP 2020 and its proposed changes; impact of COVID-19 on higher education; and the risks and opportunities of Indian higher education surfaced by COVID-19 catastrophe and required amendments in it; the 73 documents were screened and finally 47 documents were selected and used to discuss the relevant issues.

3. Discussion

Attempt has been made to conduct discussion in different sub sections to meet the purpose of the paper. The discussion has been presented in a flow starting with historical perspective of Indian higher education, amendments it made from time to time including the recent NEP 2020, challenges it faced during the COVID-19 crisis and its future opportunities.

3.1 The Higher Education System in India

Since independence, India as a developing nation, has been disputably moving forward in the field of education. The higher education system of the country has grown significantly during the post-independence period. However, the pressure on the system is enormous as it needs to cater to many aspirants. In the area of public policies of higher education, India has been shaky as there has always been a certain kind of confusion in an overall sense. Towards the start of the 1990s, it was noticed that there would be less intercession by the public authority in building higher education approaches. There were no policies on privatization of the higher education as there was confusion about whether it would be beneficial on a large scale. Later, it was realized that the lesser intervention from the government in the policies of higher education has helped in its rapid growth and development. Thereafter, came the period of clear pro-private approaches (Tilak, 2018).

According to All India Survey on Higher Education 2019, India currently has one of the largest higher education systems in the world, with over 993 universities. Many universities present during the first decade of the 21st century were public institutions and had the power to regulate not only academic activities on their campuses but also their jurisdiction (Varghese & Malik, 2015). This was because of the affiliating system. The public exchequer also helped private institutions by providing them with financial support in the form of grants. Higher education was able to grow due to the key roles played by private funds and individuals. The education scene has undergone radical change as a result of recent advances in science and technology, internationalisation of education, media revolution, and an ever-increasing competitive market (Varghese & Malik, 2015). Higher education has experienced a paradigm transformation recently, moving from a national to a global education system, from providing education to a select few to all people for the rest of their lives, and from being a teacher-centric system to a student-centric system.

The country's established higher education system and its methods have, however, been facing new problems as a result of these changes. One of the major challenges faced by the Indian higher education system today was to bring equality in the access and quality of education to every nook and corner of the country. Access to and equity in higher education in India appear to be constrained for several social, economic, and political reasons. The other factors appear to be a lack of easy access, belief by some that women's status is inferior, a failure to implement existing programs, insufficient use of resources, a lack of political will, and coordination in measures on all equity fronts (Sahney & Thakkar, 2016). The old management structures that were acquired or established during the pre-independence era and still exist in the twenty-first century were required to undergo some major changes. Cross-cutting concerns, including awareness of one's health, values, and ethics are still largely ignored. These concerns are crucial for India, which is currently using higher education as a potent instrument to create a knowledge-based information society fit for the twenty-first century.

3.2 The Long-Awaited Change: The National Education Policy (NEP) 2020

The Government of India finally released NEP 2020 after 34 years of waiting. NEP 2020 has a great deal of potential to change the Indian educational system because of its futuristic outlook (Kumar, 2020). It emphasizes critical thinking, encourages competency, and promotes experiential learning among students (Puri, 2019). This will make the youth an active contributor to the fourth industrial revolution. To implement NEP 2020's provisions, the government conducted extensive consultations with all the stakeholders. The draft policy presented by the government was translated into various regional languages so that non-English speaking natives can also access and understand it. Various top-level educationists, academicians, and representatives of the state governments were also consulted (Aithal & Aithal, 2019). The policy can be said to be more democratic in nature as it was developed using a bottom-up approach. In the Indian context, NEP 2020 will aid in creating extensive, first-of-their-kind connections between measured student skills and physical characteristics (Jha et al., 2020).

NEP 2020 proposed to divide institutions of higher learning into two categories: teaching-intensive universities with some research activity and research-intensive universities. This will enable higher education institutions improve their research infrastructure and conduct high-quality research (Jha & Parvati, 2020). A National Research Foundation (NRF) was proposed as an agency to address research and knowledge development top priority across a wide range of fields, from the arts and humanities to science and technology. One of the basic aims of NRF will be to provide funding for research in various academic fields in all the universities. NRF will ensure that the funding of research is done based on merit and that the peer-reviewing process is transparent and recognize outstanding and significant research initiatives carried out in close cooperation with governmental, commercial, and non-profit organizations (Kumar et al., 2020). To give quality education to the underprivileged areas and regions of the country, Special Education Zone (SEZ) is to be established (Jha & Parvati, 2020). A single umbrella regulator will be developed for the certification and academic regulation of higher education institutions in India, dissolving the current top regulatory agencies like UGC and AICTE (Shenbagaraj, 2020). The top institutions in the world will now be able to open campuses and conduct business in India, marking another significant milestone.

NEP 2020 has commissioned the provision of multiple entries and exits as one of the main aspects, among other things, for higher education. Six academic levels, from level five to level ten, make up the entirety of higher education. The three to four years required for a bachelor's degree correspond to levels 5 to 8. Students have the option to leave a level of study early and then return later, depending on their needs and convenience. Students will receive a diploma after Level 5, a certificate after Level 6, a bachelor's degree after Level 7, and a bachelor's degree with research after Level 8. The research will be the main focus in the fourth year of the undergraduate curriculum, or Level 8. After graduation, there will be a post-graduation stage. The master's degree shall be considered as Level-9 and be of one to two years duration. Students having three years bachelor's degree i.e.,

Level 7, can enrol in a two years master's degree program, while students with four years bachelor's degree with research (Level 8) shall be eligible to pursue a one-year master's degree. Further, in the case of two years master's degree program, students can pre-exit after completing one year with a post-graduate diploma. The second year of master's degree shall focus entirely on training students on research to strengthen their professional competence. The final academic level in higher education is Ph.D. as Level 10 (UGC, 2021). Research scholars in this academic level can pursue high-quality research in any core, multidisciplinary or interdisciplinary area leading to a Ph.D. degree (Aithal & Aithal, 2020).

As per NEP 2020, the University Grants Commission highlighted the establishment of an Academic Bank of Credits (ABC), a nationwide facility where each student enrolled in higher education must have an account. To promote seamless student mobility both inside and between institutions, ABC will simplify credit recognition, credit accumulation, credit transfer, and credit redemption. The basic aim of ABC shall be to reduce the dropout rate and increase Gross Enrolment Ration (GER) in higher education by offering lifelong educational opportunities. Students can exit at any level as credits they earn at every academic level will be accumulated in ABC and can re-enter at the next academic level at a later stage. This movement shall not necessarily be at the previous institution, rather at any institution as per their convenience by redemption of credits they earned at the previous academic level from the ABC. Moreover, there is the provision of synchronizing skill and vocational education alongside general education at the higher education stage. NEP 2020 discarded rigid subject combinations and intends to offer a flexible and imaginative subject combination to students (GOI, 2020). As a result, by increasing its quantity, quality, and relevance, soon, Indian higher education is poised to achieve a new milestone.

3.3 The COVID-19 Catastrophe: A Bolt from the Blue

The COVID-19 pandemic has impacted higher education around the world in general and in India in particular, putting a halt to the implementation of visionary provisions of NEP 2020. Rather, it has created unanticipated challenges in continuing the educational activities for the stakeholders as Indian higher education continues to suffer due to inadequate access to technology. The institutions had to continue the process of teaching-learning even when the staff, students, and faculty were not physically available (Jena, 2020a). In such a scenario, the higher education institutions shifted to online mode for continuing teaching-learning. UGC, through its advisory board, instructed all the institutes to continue classes in online mode as per feasibility and engage ICT tools available for use in academia (Kapasia et al., 2020). Different university departments have subsequently started employing a variety of online methods, such as live online classes through Skype, recorded academic lectures on YouTube, pre-recorded lectures through NPTEL, lectures through Google Classroom, live online classrooms through Piazza, Zoom, EasyClass, etc (Jena, 2020b). With the COVID-19 pandemic disruption, technology and tools that were previously considered auxiliary and largely optional have suddenly moved into the spotlight, making online teaching the only option, and learning in an ICT environment the new standard (Gurukkal, 2021). Policymakers and educators across the nation have

been trying to minimize the disruptive effects of the COVID-19 lockdown on students (Alvi & Gupta, 2020).

However, many HEIs in India still lack the necessary resources to help students with the online teaching and learning process. The biggest problems with online teaching and learning in higher education institutions are the digital divide between institutions, digital literacy gap among students, the absence of academic professionals with the necessary digital skills, and the lack of readiness on the part of institutions and teachers (Kummitha et al., 2021; Rahman, 2020). Amidst these challenges, higher education institutions have tried their level best to react positively to ensure that teaching-learning with some tools and techniques can be made possible. The academic interests of learners are not disregarded as instructors continued to deliver online classes with the minimum available tools, methods and means they have (Mathew & Chung, 2021). However, the quality of education offered with such minimum facilities and training is being questioned.

The COVID -19 pandemic also had a stern impact on the conduct of academic research and the development of research professionals. The pandemic has made traveling for students and researchers quite difficult, especially for those who are working at national and international levels. It was reported that much of the scientific laboratory research work could not be conducted (Dutta, 2020). Besides teaching-learning and research, other academic activities like admission, examinations, entrance tests, job recruitments, etc. were relentlessly disturbed. Many entrance tests for higher studies in the universities were cancelled which disrupted the lives of many students. Numerous external examinations were postponed, and internal examinations cancelled (Kapasia et al., 2020). Though some institutions could conduct internal assessments through different online platforms, the educational and occupational futures of students were directly crashed due to the postponement of external assessments (Hiremath, 2020). Students also started being more anxious about their career uncertainty. Employment opportunities for newly graduated students reduced drastically (Aristovnik et al., 2020). Estupinan and Sharma (2020) stated that many Indian students working abroad were upset when they lost tier jobs and predicted that more students may lose their jobs in India as well as overseas.

3.4 Indian Higher Education Post Covid-19: Risks, Opportunities and Required Amendments

3.4.1 Risks

The COVID-19 pandemic has not only harmed the current state of higher education in India, but it also raised various issues that could jeopardize its future. In the long run, greater impact will be observed in areas like socioeconomic inequality among individuals, access, equity, and quality of higher education, as well as negative effects on economic growth. Though NEP 2020 has proposed a more flexible pattern of education regarding course combinations and multiple entry-exit to ensure life-long education for all as per learners' convenience; the impact of COVID-19 has created further gaps and disparity in access to education due to India's intrinsic economic inequality. The wealth divide in India is well-known; a 2020 Oxfam analysis noted that the richest 10% of the nation holds nearly three-fourths (74%) of its wealth (India Today, 2021). Use of online learning

platforms is still a faraway dream of many in countries like India, where a large share of the population is still poor. In 2027-18, only 24 percent Indian households had an internet connection (NSO, 2019*)*. Even though India has 451 million adults over the age of five who are active internet users, 385 million of whom are 12 or older, most of the internet penetration occurs via cellular connections, according to the 2019 report from the Internet and Mobile Association of India (IAMAI). Even if digital education is patronized in the NEP 2020, the preparations do not seem adequate. In fact, from 6.04 billion in 2019–20 to 4.69 billion in 2020–21, less money was budgeted for digital learning (Banerjee, 2020). Thus, there is a fear that the pandemic may increase the gap between privileged and unprivileged students. Students who belong to the lower-income section of society are more likely to suffer the most as high-speed internet connection and digital gadgets to facilitate online learning are costly. By widening the gap, it will create more socioeconomic inequality in society at large.

Moreover, due to social and health concerns, there may be a reduction in the pace of student attendance in face-to-face learning. Many parents will be reluctant to send their kids back to school post-lockdown as the fear of the virus may still loom. Parents with a poor economic background who even lost their livelihood due to the pandemic may not afford send their children back to academic institutions (Shah et al., 2020). As most foreign educational institutions have been impacted by the pandemic and are either closing or operating in an online mode, there may be a reduction in the number of students moving abroad for higher education (Franchi, 2020). Considering safety and well-being issues, parents will prefer to encourage their children to find workable alternatives closer to their homes (Meeter et al., 2020). Thus, there is a huge possibility of replacing offline education with the online mode at least in a blended manner, which may impact the quality of education in a reverse manner.

The online pedagogic techniques that did a great job in supplementing offline education during the pandemic, may not serve as the latter's replacement in a developing economy like India in the coming days for several socio-economic reasons (India Today, 2021)**.** The faculty members and students, and the entire education system of the country, in general, are still accustomed to conventional classroom teaching. There are issues with students' active engagement in online learning, their technical know-how, reliable and transparent e-proctored examination tools, etc. On the side of teachers, there is a lack of online techno-pedagogical abilities that emphasize collaborative learning, such as case studies, debates, discussions, quizzes, drills, etc. There is also a lack of sufficient suitable online content (Rahman, 2021), which may adversely impact the quality of education if sufficient arrangements and training mechanisms are not well-materialized. Unprecedented restrictions may also limit the fun and joy of life on campus. Sports, gyms, and tournaments may work at a low pace for longer periods resulting in less physical activity for students (Almasri et al., 2020). Interpersonal relations that institution facilitates by bringing together students from different socio-cultural backgrounds cannot be replaced by the digital medium. As a result, interruptions in peer relationships will be as a barrier to the

development of their social skills, which are crucial to their overall growth and development.

There is also a fear in the banking industry regarding the rise of student debt loans in India. Many parents prefer taking education loans to let their children have better higher education and if the employment market does not pick them up, there will be a risk of these students may slip into a debt crisis. And as these students remain unemployed, the unemployment rate may also go higher. There may be many Indians who might be returning home as they would have lost their job overseas. Hence, suitable employment for new students will be difficult which may in turn affect the economic scenario of the country negatively.

3.4.2 Opportunities

However, the opportunities that were created in the Indian economy due to the COVID-19 pandemic are enormous and can lead to a better future. Modern technologies compete against conventional approaches of teaching-learning and assessment techniques. With the adoption of technology in education, in the future, it can be expected that teaching and learning will work more seamlessly. Virtual technology like e-mail, WhatsApp, videoconference, instant messages, webinars, etc. will be used more often for communicate between teachers and learners (Agnoletto & Queiroz, 2020). Even the system for doing assessments of students may change completely. Artificial Intelligence may help faculties complete the evaluation, assessment, and preparation of grade-sheets, and ease monitoring the students' performance (Toquero, 2020). Even with the current electronic tools and software solutions, internet-connected e-ink pads (ICEPs) with features for personal identification, verification, online delivery of questions, receipt of handwritten answers, and software-based surveillance measures enabling system-proctored examinations can be used (Gurukkal, 2021). With more simplicity of teaching-learning and evaluation-related activities, academics would be able to focus more on the development of the course, qualitative teaching-learning, and pedagogic developments.

Even if COVID-19 disrupted travel for higher education personnel, they can be justified in a good light, at least for a nation like India. Global society has expressed concern about the increased talent movement from developing and underdeveloped nations to developed countries, which erode local traditions in terms of language and culture and eventually lead to standardization (Belousova, 2019). The distribution of wealth and talent throughout the world will become even more lopsided, according to Altbach's (2009). Countries like China, Malaysia, and India have already been attempting to stop the historic brain drain and compete with western universities for the best academics and international students (Sharma, 2015). As a result, COVID-19 has given Indian higher education a fantastic opportunity to become more productive, establish regional hubs, and build its top-tier universities.

Another opportunity offered by the COVID-19 pandemic is personalized learning. Learning may go beyond any specific boundaries. Virtual Learning Environment (VLE) may get an impetus with thousands of students receiving

their education simultaneously from a single teacher. However, to arouse and retain an interest in online learning, educators should redesign their lessons by reducing time of online classes, minimizing student assignments, incorporating innovative virtual tours, virtual field trips, etc. (Sim et al., 2021). With the implementation of NEP 2020 provisions in India, students at all levels of education can pursue their studies from alternative online platforms with more flexible and imaginative subject combinations as per their choice and potential, which may in open new opportunities. MOOCs courses are already given high importance in India as students in higher education can earn up to 40% credits from SWAYAM (MOOC) platform.

3.4.3 Required Amendments

However, to turn COVID-19-like negative scenarios into a positive ones and harness maximum benefits, Indian higher education should propose more flexible learning environments, and explore blended learning modules and synchronous skill-based learning alongside contemporary general education. Since new epidemics could spread in the future, it should prepare itself for online mode. Given the magnitude of Indian higher education and the nation's generally deplorable economic situation, faculty and students must become familiar with open-source learning solutions in a structured manner. Innovative mobile-based learning will become more widely used as mobile internet usage in India rises. Internet usage is predicted to reach 85 percent of households by 2024 (Choudhary, 2020). A unified learning system must be developed for the delivery of pedagogical approaches by merging classroom learning with e-learning, because technology will enable ubiquitous access and personalization of education even in the most remote corners of the nation. To develop quality assurance systems and quality benchmarks in such integrated learning settings, however, extreme caution must be taken in a country like India with more than 50,000 higher education institutions. Additionally, sound strategies are needed to equip the Indian higher education sector for the changing demand-supply trends occurring around the world, especially those about faculty and student global mobility, as well as to raising the standard of an increasing demand for higher education in India (Choudhary, 2020).

Planning and executing a uniform academic plan for all the higher education institutions across the country to continue the learning process during any such pandemic in the future is the need of the country (Kapasia, 2020). In this regard, a model curriculum for core courses in higher education can be developed across the country in disciplines that UGC, the higher education regulatory body has not offered yet. However, in doing so, local needs, problems, and issues should be included to reflect local culture, society as well as the local job market. This will ensure two purposes: firstly, adherence to the provisions of NEP 2020 of seamless mobility of students across institutions with multiple entry and exit to ensure lifelong education opportunities, and secondly, will serve the needs of the local area by training students to become locally dependent in any COVID-19 like situations in future. It is considered of utmost importance to make the syllabus flexible to the requirements of the present times (Marinoni et al., 2020). Therefore,

health and environmental studies should be combined in higher education institutions' curricula.

Students can experience inadequate instruction, but they cannot afford the consequences of poor evaluations (Boudi, 1995, as cited in Kundu & Bej, 2020). Hence, the importance of continuous and comprehensive evaluation even during any adverse situation should not be ignored and best assessment technologies should be adopted on a wider scale. Adopting Artificial-Intelligence-based e-proctored examination tools can be tested to ensure the reliability and transparency of examinations. Most of the characteristics of traditional exams, including proctor intervention during exams, exam timing, and various questioning techniques (multiple choice, open-ended questions, matching, theory, etc.), are applicable in online proctored exams (Northcutt et al., 2016), allowing academic integrity to be upheld. Moreover, the distribution of weightage of Internal Evaluation (IE) and External Evaluation (EE) should be rearranged and over time it should be made 50:50. Common academic calendar across all the institutions across the country is needed. Many times, aspiring students could not move to a higher stage of learning as well as to institutions of their choice due to a mismatch in the timings of various activities like entrance tests, examinations, result declarations, etc., across institutions. COVID-19-like episode makes the situation even worse. Hence, a common academic calendar would facilitate movement of students to institutions of their choice even during the critical times. It would also facilitate the system of credit transfer, multiple entry, and exit as envisioned in NEP 2020.

4. Conclusion

There have been many obstacles in raising the standard of education in Indian higher education over the years, but these obstacles have also presented opportunities for improvement. India currently holds the third-largest share of the global higher education market, behind China and the United States of America. To handle new difficulties, the system needs to be more precise, better at answering questions, and have ongoing learning approach research (Sheikh, 2017). As a result of the brain drain that sends highly educated and skilled individuals from India to other nations, the country is in urgent need of highly qualified individuals who can develop its economy and move the nation from a developing to a developed one.

Due to decreased mobility and restricted exchange programs of academic activities across the countries during the COVID-19 shutdown, globalization and liberalization of education have abruptly come to an end. With inadequate infrastructure, academic incompetence, and lack of resources, emerging or developing countries like India are experiencing policy paralysis. This paper addressed many issues and concerns of the Indian higher education system due to the COVID-19 pandemic, including access, equity, and quality of education; adverse impact on the economy; and other social dimensions. The paper also discussed how the risks can be turned into opportunities and put forward necessary amendments in light of NEP 2020. Fearlessly, the governments must ensure that communication tools are available, the academic experience is

delivered in high quality and technologically enabled learning is promoted for students to bridge the disparities that originated during and after the COVID-19 catastrophe. In the face of challenges, the higher education system in India must anticipate an intellectually stimulating potential for future academic decision-making.

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