Academic-industry collaboration under NEP 2020

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Abstract

The academia-industry collaboration has become important in the last few years. NEP 2020 provides opportunity for institutions to collaborate with industry for holistic development of students. Internship , market-oriented courses, incubation cells, skill based courses are some of the areas where collaboration is possible. Students benefits as it increases their employability, improves their preparedness for entering the industry. Therefore , in the long run Academia-industry collaborations have to be encouraged for achieving national goal of Viksit Bharat.

1. INTRODUCTION

Academia-industry collaboration had gained prominence in India in the last few years especially after the introduction of National Education policy (NEP) 2020. This has become relevant as an important step towards fostering innovation and skill development among the learners in institutions. As we move away from the old pedagogy of rote learning to more experiential learning, greater interaction with industries becomes important. Collaboration between academic institutions and industry is also needed for aligning the academics to the industry requirements and achieving the goals of Vikshit Bharat of the Government of India. Today, new technologies like Artificial Intelligence and Industry 4.0 requires greater collaboration among all stakeholder to empower students and help India to become a knowledge based economy. In India, the establishment of prestigious institutions like the Indian Institute of Technology(IITs) in the 1950s and 1960s laid the foundations for early collaboration. The encouragement to academic industry collaboration increased after the liberalization of the Indian economy in the 1990s. Private companies like TCS, Infosys and

Wipro started collaborating with colleges for recruitment , curriculum development and skill development. Creation of science parks and research centres were another example of collaborations. Despite these examples, the scalability remained a challenge as such collaborations were limited to elitists institutions like IITs and IIMs(MHRD, 2016). In a way introduction of NEP 2020 has been a game changer which has scope for increased collaboration for Higher educational institutions. Globally , countries like USA and UK has a vibrant academia industry collaboration which has been highly beneficial to start-ups and new technology based companies. Such collaborations are needed in India for enhancing the quality of Higher education in India.

The objective of this article is to study the opportunities and challenges for academic industry collaboration in India. Second is to explore the role of NEP 2020 in boosting such collaboration followed by identifying areas of collaboration for Higher educational institutions.

2. BENEFITS AND CHALLENGES

2.1 BENEFITS: Over the last few decades, India has witnessed increased collaboration between educational institutions and industry focussing on creating employment opportunities for learners and fostering innovation and entrepreneurship among them. Government has also played an important role by introducing schemes like Atal Innovation Mission(AIM) and Skill India.

AIM is the flagship programme of the Government of India to promote a culture of innovation and entrepreneurship in India. AIM has created Atal Tinkering Laboratories (ATLs) in schools with the objective of fostering creativity among the young minds. AIM encourages educational institutions to collaborate with start ups and industries. Similarly, Skill India is designed to promote technical and vocational training among the youth. It aims at skilling and up skilling of youth and tries to bridge the industry academia gap. It focusses on increasing employment opportunities and entrepreneurship opportunities.

Academic industry collaboration has several benefits to institutions. The primary benefit to students comes from increased employability. Institutions can have tie-ups with industry for placements and internship opportunities. There is scope of creation of industry-academic innovation hubs which will help in fostering research-based learning. Entrepreneurship is another area which will get boost through such collaboration. They can become launch pad for student led venture with industry experts playing the role of mentors.

Following is some of the **important benefits** of academic and industry collaboration.

1. **Understanding real life scenarios:** One of the main areas of focus of academia-industry collaboration is to apply academic knowledge to real life situations. Students are encouraged to do live projects, case studies and internships which helps them to gain hands on experience . This helps to complement the classrooms learning along with developing of critical thinking and better communication skills. Many programs like mass media and Business Management require students to do internships with media houses and corporate sector to gain practical exposure.
2. **Exposure to industry trends:** The business world is very dynamic in nature. It is constantly evolving in nature with new trends. Classroom learning is not adequate to understand such changes. Students benefits by getting exposure to new trends and technologies. This helps the students to gain direct knowledge of industry practices and keep their education updated.
3. **Students develop practical skills:** It is very important for students to get hands on training. This is needed for students to navigate real world business challenges. Students get to interact with industry professionals and work towards developing solutions to business problems. Interaction with industry professional are also important ways to cultivate 21st century skills like communication, negotiation skills, teamwork, project planning and decision making.
4. **Increasing employability**: One of the highlights of academic-industry collaboration is the benefits that students obtain through increased employability. Students get to build professional networks. This connection is vital for their career progression. Internship opportunities gives students a practical exposure which can also translate into final placements for them. Students also gain knowledge from industry mentors.
5. **Encouraging entrepreneurship among students**: Industry collaboration plays a positive role in encouraging and fostering entrepreneurship among students. Learners are encouraged to identify gaps in services provided by industries and come with innovative solutions to these problems. They also study how industry functions which can be one of the ways to learn how to run their own businesses in future. Industry exposure provides access to new technologies and specialized knowledge based on their domain knowledge.
6. **Supporting research and innovation:** Collaboration helps to provide invaluable support to institutions in their research and innovation initiatives. Partnerships can be

formed on research projects which enhances the quality of the research work and ensures that research is done based on the industry requirement. This is very useful as academic institutions can help industries for quality testing and product design.

7. **Helps to improve institutional reputation**: Educational institutions can build their reputation by showcasing their industry connections. This helps educational institutions to attract better quality students by providing internships and placement to them and offer industry aligned education.

2.2 CHALLENGES: While academia-industry collaboration has its benefits, there are also several challenges that come in the way of successful implementation. First one is the lengthy process of Memorandum Of Undertaking(MOU) approval. Sometimes the legal process takes moths to be finalized before the collaboration can begin. Another challenge is the communication gaps as academic institutions often lack the fast-thinking industry mind -set. Teachers do not have mind-set that industry requires to implement projects in time. Another challenge is that while such collaboration is easier in the field of science and engineering, there is limited scope in the field of humanities and social sciences. There are also problems related to funding constraints as there may be requirement of funds from educational institutions to implement the collaboration. For a long time , it was only institutions like IITs and few engineering colleges that ventured towards collaboration . Slowly even regular institutions are trying for such collaboration. But it becomes a challenge for institutions located in smaller cities. Students also have to be prepared with proper training like C.V writing and interview skills.

3. ROLE OF NEP 2020 IN ACADEMIA-INDUSTRY COLLABORATION

The NEP 2020 represents a framework that is reshaping the higher education in India. It is going to be the base for India to be transformed into a knowledge economy and be a dynamic partner in the global economy. NEP 2020 emphasizes on multidisciplinary education, research orientation and skill development. NEP 2020 provides a strong foundation for academic-industry collaboration as it emphasise on internship and project based learning. One of its key feature is the promotion of industry based curriculum. The NEP 2020 advocates vocational training and experiential learning. Through the concept of Professor of Practice, NEP facilitates the students to learn from professionals with experience. All these are key reasons for institutions to collaborate with industries for promoting holistic development of the students. NEP emphasizes on students gaining practical exposure to

understand workplace challenges. Institutions are encouraged to set up entrepreneurship clubs, start-up incubators, innovation club to strengthen the industry-academic ecosystem. NEP 2020 provides opportunities to work in industries while studying. Effective implementation of NEP 2020 requires a strong collaboration between industries and academic institutions.

3.1 AREAS FOR COLLABORATION

- **Introduction of market-oriented Programmes:** Higher educational institutions can introduce market oriented courses in collaboration with industry partners. Today many institutions have introduced degree programms offering which combine with international CMA and CFA course. Another type of programmes which Colleges are introducing is Apprenticeship Embedded Degree/ Diploma Programmes (AEDP). The objective of such courses is to integrate industry-based apprenticeship training into the regular Degree or Diploma programme. This enables the students to acquire full time degree along with industry experience.
- **Establishment of Incubation centres, Start-ups**: Many educational institutions collaborate with industries to establish incubation and start -up centres. This helps to provide necessary technical expertise to the students to start their start-ups. These institutes help with financial assistance, infrastructure, legal help to start such ventures.
- **Skill development** :In today's times, under the NEP 2020 guidelines, skill development among students have become vital. Institutions have tie-ups with skill councils to offer skill-based courses to students. Swayam NPTEL courses are other ways in which students can obtain skill-based courses. Coursera offers courses with industry leaders like Google and Amazon.
- **Faculty Development** : Industry experts often collaborate with faculty members to develop curriculum , deliver guest lectures and lead workshops ensuring students secure industry knowledge. NEP 2020 requires vocational based courses which can be introduced by faculties in collaboration with industry experts.
- **Developing curriculum with industry experts**: Industry experts help faculties to design courses that are aligned to industry standards. These collaboration helps to make the syllabus taught relevant and also provide the right technical knowledge that students will require. This helps the students to acquire the necessary skills that are required by the industries. By integrating industry insights into the curriculum,

educational institutions can provide students with a well-rounded education that helps to combine theoretical knowledge with practical exposure.

- **Introducing live projects and case studies:** Many institutions include industry based live projects and curriculum as part of their curriculum. This helps students to develop professional attitude where they work with industry professionals , collaborate with peers and deliver results.
- **Gust lectures and workshops**: Guest lectures and workshops can be arranged with the help of industry professionals . Such sessions will provide knowledge , trends and challenges in the business world. It helps students to prepare for life after their college. Guest lectures and workshops helps students to ask questions and engage with industry professionals. Prominent alumni can also conduct session for students sharing their experience for working in the industry and helping students to gear up for their life after college.
- **Innovation hub:** By promoting entrepreneurship, colleges acts as launch pads for student -led ventures with collaboration with industry experts. Such collaboration is possible not only in areas like artificial intelligence, healthcare , green technologies to non-technical fields like design and social sciences. Many skill Universities have been established with the objective of promoting entrepreneurship and innovation among learners.

3.2 STEPS FOR EFFECTIVE INDUSTRY-ACADEMIC COLLABORATION IN THE FUTURE

The future of academic-industry collaboration has a lot of opportunity for growth in the future. There are several steps that have to be taken to establish a successful academia-industry collaboration. There is a need to create a collaborative ecosystem that includes curriculum design, research and innovation. An important step that can be taken by institutions is to establish innovation clusters. These clusters will help to promote interdisciplinary academic work specialization in courses like artificial intelligence, green technologies and renewable energy. Collaboration should not be confined to technical institutions only, there is a need to bring more institutions offering BCOM, BSC degrees to collaborate with industries. Colleges can collaborate to address national issues like clean energy, data analytics and sustainable living. Another area that can be enhanced is create an environment for obtaining patents and copyrights. Students should also be motivated to apply for patents for new products. Funding constraints also must be sorted with Government

providing funding to even students to undertake innovation. Innovation cells have to help institutions with the entire process of staring a start-up. Another important area is reducing skill gap among students by introducing industry driven courses. Global tie-ups should also be explored for future growth of institutions.

4.CONCLUSION

The benefit of industry collaboration extends beyond the student. It is a long-term partnership that institutions create with industry partners. This helps to ensure a regular flow of resources, financial assistance and opportunities for both faculties and students. These collaborations include curriculum development and creation of innovation cell. In the long run, such collaboration helps to enhance the reputation of the educational institution but also the industry collaborator. The article calls for all stakeholders like Government, industry , academia and students to come together for a successful collaboration for the benefit of students and the nation. Then only we can realize the dream of making India into a $ 10 trillion economy by 2025 and achieve the goal of Viksit Bharat.

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