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Industry-academia collaboration in higher education institutes: With special emphasis on B-schools

Kritika Dasgupta *
Sanjeev Bansal †
Amity Business School
Amity University
Noida
Uttar Pradesh
India

Swarna Bakshi Saini §
International Business University
Toronto
Canada

Abstract

Academia and Industry are critical pillars of our economy. The collaboration between Academia & Industry to a great extent helps in acquiring a better Ranking by accreditation agencies, growth & employment opportunities, research & development avenues etc. A productive interface between industry and academia, in the present times of knowledge economy, is a critical requirement. The dynamic nature of Industry and academic world has the responsibility of developing concepts and theory on the same lines to keep pace with the changing environment. Collaboration between industry and academia is relatively less and common paradigms are less explored. This research aims to examine the Industry and Academia Collaboration to explore new areas of growth with special reference to B- Schools and focuses on how this can help in the growth of Higher Education Institutions (HEI).

Subject Classification: *A23, I22, I23.*

Keywords: *Industry-academia, Interface, Knowledge economy, Collaboration, Knowledge-based teaching, Paradigm, Employability, Students, Growth.*

*E-mail: **kdasgupta@amity.edu (Corresponding Author)**
† E-mail: **sbansal1@amity.edu**
§ E-mail: **Ssaini@ibu.ca**

Introduction

The ultimate objective of a Business School is to develop a candidate who is in sync with Knowledge, Skills, and Aptitude (KSA) required for facing the realities and the volatility of Industry. They must also develop tools to impart knowledge like case studies, develop channels of collaboration with the industry, publish research, make themselves competent to deal with Industry trends. Students can leverage their knowledge for their advancement. There can also be technology transfer and their commercialization at Industry scale. The industry can offer Business Schools with more virtual or practical experience for enhancing a students' problem- solving, decision-making skills, core, and soft skills, along with conventional Internship programs. The academic field is innovative while it is the role of the industry to commercialize innovations. Collaboration between business and academia worldwide is needed and there is no paradigm that is commonly used, although this has long been a subject of debate and discussion on both sides.

Business Schools and Management Institutes operated in isolation from the industry in the past, but recently we have noticed there is an increased collaboration between the two. Both the entities are rapidly gaining from this synergy. Industries processes have become more complicated and the constantly changing business environment with the introduction of Industry 5.0 has necessitated a need for more collaborative response. Not only a robust structure but an agile interface between Industry and Academia is the need of the hour. This is required to update curricula as per Industry requirements, emphasis on new technology at workspace, this will help to make students more industry-ready well in advance. This will increase the chances of their employability.

Literature Review

There is an important discussion and debate regarding the performance of HEIs in the majority of the countries (Shakoor et al., 2021), particularly in the Asian and European regions, students aspirations are of utmost important, getting the right fit for the job; however, employability factor requires a lot of concentration.

HEIs are liable for training and developing students as per the requirement of the industry (Safdar et al., 2020). According to (Bl´azquez et al.2018), it takes couple of years to attain the right traits as per industry standards in order to be a competent and be consistent. This transit from

Campus to Corporate and getting a dream job is a matter of concern. (Abbas and Sagsan 2019).A number of researchers, such as (Baughman 2018) and (Imran and Abbas 2020), have explained the HEIs are facing difficulties and are not offering talent as per Industry standards. Almost all HEIs fail in meeting corporate expectations (Jacob & Gokbel, 2018). Moreover, there is ample struggle in associating teaching with real time jobs. The main gap is to keep track of the changing industry requirements and how to map them.

(Lutchen, 2018) proposed linkages between industry and academia is important so that it helps in student as well as University growth. In the same way (Sahoo & Muduli, 2021) commented that mentors also play a crucial role in ensuring that learning is valued and prioritized, regardless of a person's educational background. To ensure optimization of resource, parents and mentors need to create best learning environment and support students in their journey of acquiring knowledge.

According to Munjal and her co-worker (2022), The emergence of online education has now disrupted traditional learning norms, serving as a catalyst for higher education reform by providing diverse opportunities and skills at a comparatively affordable price. Therefore, collaborating with the IT industry also would be beneficial in bridging the gap and meeting evolving educational needs. The rapidly changing environment has led to revision in the organizational requirements (Baughman, 2018); because of which there is a change in the required skillsets. Due to the lockdown and current circumstances, there has been a crisis in almost every industry (Kumar et al., 2023).

It is imperative to have a strategic collaboration between Industry and Academia in order to increase education experiences, to aid technology transfer to take maximum benefit of social, economic and environmental opportunities of the industry. It will lead to generations of more opportunities and remove difficulties in talent transfer. Roberts (2007). As per Kannan (2017) Collaboration between Industry and Academia is important as education has direct impact on the industry know how and business operations. The Institutes should emphasize on Research & Development and invest in Faculty Development Programs as this will in turn lead to growth of education Institution and will also impact business operations through innovation.

It is evident that there is collaboration between the two but there is lack of serious coordination. When UGC examined this issue, they suggested having a TIE cell which is known as Technology, Innovation and Entrepreneurship Cell in HEIs to concentrate on continuous networking

between the two. Industry forums like FICCI and CII help in identification of Industries who are willing to keep the two in synchronization (Batra et al., 2019). It was suggested that companies have identified various parameters where academia is lagging, and it is the responsibility of the university to overcome them. But there is also a need to establish a regulatory body and further identify those gaps for continuous efforts to bridge them. The Academia-Industry synergy can decrease chances of unemployment rate in India Popat & Ganatra (2017). In today's technologically advanced world, the importance of innovation is clearly apparent. However, despite the growing need for innovation, its adoption falls short of demand (Kumar et al., 2023).

According to Bisaria (2011), Industry and Academia is a collaborative unit which can bridge the gap between job requirements and the type of training which is imparted in the institutes. This engagement should not be ritualistic or tentative rather realistic in nature. It is important that the management institutes and students should think with respect to entrepreneurship ecosystem. It was found that the most popular ways of this collaboration can be through Campus Selection, Guest Lectures and Joint Research Projects for leveraging healthy placements and training of students. It suggested that a blame game between both the interacting bodies needs to be stopped and a joint action for increased accountability gets started. Education and Industry are an integral part of any economy; the changing paradigms have brought both academia and industry closer. Lack of industry institute interface can potentially give rise to mismatch between demand and supply of manpower, which can cause disruption in the job market. Technical institutions need to enter academic association with different Institutions to redefine the curriculum and impart theoretical knowledge. Constant interactions with industry professionals should be there to maintain a result-oriented academic atmosphere (Untawale & Kediya, 2014). Industry-academia collaborations to enhance the standard of education in terms of excellence, transformation, collaboration, and self-reliance are the four main components of higher and technical education growth. There are, however, significant forces behind the growth of business and university joint research. Industrial–academic research partnerships have become an important part of corporate R&D (Saini & Dubey, 2014).

According to Siddharthan (2018) it reflects that the universities that collaborated with Industries have a higher ranking. The governments should enact laws that would give freedom to the universities. Industries could play an important role in providing funds for research and

development. The world ranking of a university is dependent on the universities and their students.

Research Methodology

Higher Education Institutions and Industry are two important pillars of the economy. The onus of developing the talent pool to fit as per industry requirements lies with academia. In today's globalized world, economies are becoming more interconnected, leading to cross-border research and development. India with a goal to become a global powerhouse in innovation must focus on collaborative knowledge creation and exchange between industry and universities. Cooperative research is essential but other avenues must also be established to encourage a closer interaction between academia and industry at all stages of technological development. While there are challenges which are faced the government must put in place a cohesive policy to enable academia-industry collaboration to thrive and support for technology leadership.

Considering the important role of employers, the current study takes industry–academia collaboration as the mediating variable and investigates how it mediates the relationship between the QMS in HEIs and students' employability.

This research is conducted using secondary content sources and observations by researchers, The data for the research paper was collected through secondary sources like research papers, articles, and websites that increased the awareness of the problem and helped in interpreting solutions for the same. Secondary data helped in understanding the discrepancies and shortcomings of previous studies and what additional material needs to be gathered.

This research aims to shed light on the best practices that universities need to adopt to succeed in UICs. Specifically, the research should study the challenges faced by the Universities in executing these practices and propose solutions to overcome them. By identifying and addressing these challenges, this research aims to provide valuable insights to universities and help them establish successful UICs. The objective of this study are as given below:

- To examine the Industry Academia Collaborations in the overall growth of the Institution of higher Education with a special reference to B – Schools

- To explore the new areas of collaboration as per the industry-academia requirement.

Analysis

By 2030 more than 250 million additional skilled manpower will be required across the industry and services segments, hence there will be a uncreased high demand for higher education in India (Figure 1).

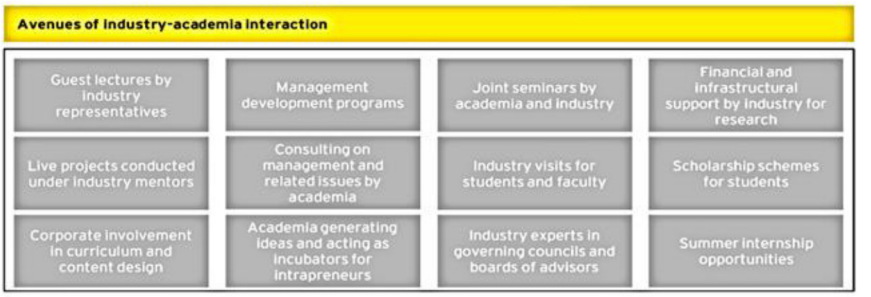

Figure 1

Avenues of Industry-academia

Source- https://www.slideshare.net/ficciindia/ficci-ey-report-on-higher-education-vision-2030

The government has started putting emphasis on Skill Base Assessment, Exposure in industry through live projects, Webinars, and corporate interactions. Opportunities such as live projects and internships help in boosting a student's confidence and will make them ready to enter the corporate world with the required skills and knowledge.

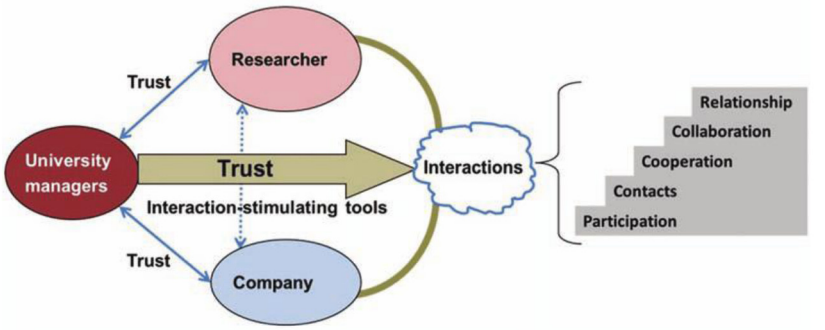

Figure 2

A theoretical framework over university-industry interactions (from Jonsson et al. 2015) (Figure 2).

Collaboration is beneficial to the HEI as well as the companies. The Companies not only acquire talent but also involve in grooming them. The talent is seen as an investment by the corporation rather than a liability. This helps in getting the right fit for the right job, at the right time, in the right place with the right KSA. As every student imbibes unique qualities and traits and company offer varied products and services, therefore with the help of tie-ups with Business Schools, companies can save their training and development and cross-skilling costs in building future leaders.

The industry-academia interface has already been under extensive debate. The relationship between universities or research institutes and industry is enhanced by an established shared area of interest. The education sector in India is developing at a rapid phase, with a high rate of growth. India is becoming an educational powerhouse.

The relationship amongst academia and industry is not that of a donor-acceptor, but is collaborative and interactive in nature, understanding and maintaining mutual cohesion with the position and efforts of each other with a view of achieving true aim of such partnerships, which is to create synergies between research and outcomes. Indeed, connections between academia and industry are a mechanism that needs all players to engage actively and collaboratively.

The success of university-industry collaborations (UICs) largely depends on the adoption of common best practices in the industry. Such practices require a strong sense of planning and the ability to maintain informal relations, both of which are essential for maintaining a good working order for the project. However, implementing these practices is easier for universities but they may face challenges in their execution.

As per the first objective the Challenges are to find the demand and supply gap. Also, to find out the gap related to knowledge sharing. To analyze the relationship / impact between Industry-Academia Collaborations along with the Employability of the students, we need to study the Importance of knowledge transfer and to provide real time solutions to the existing problems. Then the second objective is to explore the new areas of collaboration as per the industry- Academia requirements. The new areas of collaboration can be Research and innovation as it is the key indicator of growth of any B-school. Skill Development is another area which can be looked upon where all three aspects must be considered like – Upskilling, Reskilling and Deskilling as per the industry requirements. Further Invention and setting up of Centre of Excellence would give lead to the Higher Education Institutions. So, to sum up Curating the system would lead to growth of the Institution and will help in application of the classroom learning in the corporate day to day activities.

Discussions & conclusions

According to the results of the survey conducted on Manpower's Talent shortage in 2014, it showed that India ranked 3rd amongst the ten top countries whose employers faced a high degree of difficulty while filling in the captive positions in their organizations. This figure when estimated came out to be around 64% on a global scale which by itself is a proof of the fact that, despite the routine of management institutes churning out candidates to become job- ready, there is still substantial gap between the right talent mix in an individual which a company looks out for. Among the leading global economies, India stood second to Japan with a figure of approximately 81% in terms of talent shortage when competing with leading global economies. So, how can this gap be filled. This argument brings an important point to light, that there is an urgent need to look at the importance of industry-academia collaboration for the growth of higher education institutes, with special reference to business schools. (India Today,2020)

With the advent of Industry 4.0, data is the fuel, which is driving a company, and for the managers to be successfully able to derive insights, spot trends and predict future scopes of the business and industry, they need to become comfortable in working with it. It took a drastic wildcard event like a pandemic to take note of this fact by both the institutes and the industry when for the initial stages, most of them struggled to establish a proper interface and technological tools to keep their work going. The ones who were proactive and were foresighted had a smooth transition.

But for the students, who are going to become the future managers of these organizations, it is necessary to train them, make them comfortable and give them a hands-on with these situations, technological tools, and interfaces. For this both the Industry and the Academia need a healthy collaboration, where industries can establish technology transfer units on the campus and technology cells for students to practice, learn and innovate in. This can be a significant way for both industry and institute to come together and collaborate for an output-oriented learning.

Not only this channel of collaboration can make the student's experience industry rich through various simulations, but this kind of synergy can help in the growth of business schools. Designing pedagogy, updating curriculum, presenting case studies, opening internship opportunities or industry programs can be a short-term solution to the problem, because until the students put themselves to practice on those tools and experience the real company problems, what interfaces are bring used in the offices, they cannot completely estimate the working situation and come up with practical decision-making routes, problem- solving

techniques or innovating new solutions. Therefore, it is necessary that every business school student should explore these cells.

These Cells, when established on-campus can give both the company and the corporate resource units of the business schools a chance to pick out the candidates based on performance criteria, who will be best suited for the jobs according to the skill and aptitude required for it.

Teaching and conducting guest lectures can bring subjective insights to the students but the chance of a student herself exploring the problem, implementing the solution after leveraging.

her studies and trying and testing them in these cells, they can become more confident of their knowledge. Once it happens, it prepares a more employable candidate, who can be pitched by the institutes' corporate cells at the time of placements.

This factor, when extrapolated on a large scale, can lead to the formation of Institute Clusters. These clusters can form a symbiotic relationship amongst each other, exchange knowledge, practice in and use each other's technology cells and form a better Inter-Institute relationship, which in turn can give the higher education Institutes a boost, create holistic candidates, and uplift those institutes which are new and can take advantage of the established institute's corporate relations.

Industry-Academia research collaborations in India are dismally low, as indicated by collaboration output statistics. Collaboration in patenting is 0.4% of the total volume of patents in India while percentage of collaboration in publishing activity lies at 0.56% in 2014-15. As to make India a powerhouse of innovation, new range of technology is coming up day by day to meet with the day to day needs of the employer as well as the students. Today, millennials joining the workforce is eager to learn innovative technology and how to work effectively. To make India a global innovation Centre, entrepreneurs and educational institutions need to realize this potential and create a constructive platform for collaboration.

MHRD, also increased funding to IIT- Madras by nearly Rs 300 crore ($47 million) to encourage innovation and strengthen industry-academia ties. A new spectrum of technologies is needed to face future challenges to make India the global powerhouse in science and innovation, and India must advance creative developments between industry and our universities through cooperative knowledge development and sharing.

Industry-academics are a novel form of bridging the difference between the workload and the preparation provided at academic institutions. Industry-academic tie-ups are a win-win scenario for both sides. Management students should think about entrepreneurship and make use of the human talent available in the country for the development

and advancement of the economy. It is essential for academia and the private sector to create good mutual bonding and communication. Such bonding should not be restricted until initiatives and industrial tours, but should also cover other relevant fields, such as curriculum design development, new project plan preparation, business sense, joint R&D practices, and the ethical issues of the industrial workplace.

Academic institutions should design a model of courses in such a way as to allow students a broad exposure in areas that are demanded by industries. Overall, for quality and competitiveness of academic delivery.

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