

Academia-Industry interaction: Benefits and challenges

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Abstract

Academia-industry collaboration has always been a topic of discussion in both the sides. And still no model exists that is widely used. Indeed, the collaboration, world over, is quite limited. This just shows the difficulty of the problem. In this article, we discuss the different types of collaboration that are possible, particularly in the Indian scenario. In general open innovation framework via R&D and technical outsourcing activity has important effects on innovation. Thus significant and positive results between R&D and technical outsourcing and innovation in terms of products/services, processes and even organizational innovation.

In India, currently due to shortage of high quality trained manpower, there is another possible area of collaboration. It is clear that the engineering education system, the way it has evolved, is currently not in best of shape, and will require a lot of help to improve. And it is also clear that, though traditionally the Government was responsible for higher education, relying on the Government alone will not solve the problem fast enough. So, the industry and the established education players will have to pitch in. Some companies and institutes have started some initiatives of their own on this front. But this seems like a very viable area for collaboration, where joint programs have a better chance of success. However, not much seems to be happening in this area, even though both sides can gain substantially from it.

Objectives

- TEACHING, research and extension are the trio of higher education
- Teaching - communicates knowledge to students, stimulating their interest in it, and preparing them to take up Industry/Academia job
- Research - extends the frontiers of knowledge, and lends depth, breadth and authenticity to teaching
- Extension - exploits existing knowledge for socio-economically beneficial purposes – i.e., the Industry-Academia Interaction
- Major source of research funding for academia.
- Industry gains valuable insight from key opinion leaders.
- Complementary capabilities and skill sets.
- Industry trends and practices.
- Designing the course curriculum and other value added programmes based on industry requirements.
- Source for external project sponsored by the companies.
- Bring-in consultancy project.
- Create employable students “Industry-ready students”.
- Curricula, faculty, infrastructure, pedagogy improvements in line with the industry’s requirements of demand for skilled professionals.

Keywords: Industry interaction, Benefits and challenges, collaboration, manpower

Introduction

The collaboration between industry and the academic world has always been an important but complex topic. Due to the rapid evolution of the business environment and the vast transformations throughout the academic realm, the subject is now even “hotter” than it has been.

The main benefit for companies from this cooperation is the access to the latest research results and innovative new methodologies. It’s a mutual approach – the companies offer business insights and the students contribute proven methodology and expertise. It is a win-win situation for both parties.” However, since the universities and industrial companies have different business models, some investment needs to be made to converge the two positions before the

mutual benefits can be reaped. Universities focus on educating people and in creating new knowledge and excelling in existing know-how, while companies concentrate on mastering the challenges of a competitive environment and are striving for market success.

Obviously the core interest of both differs. When they collaborate, each party has certain expectations of the other side – the companies expect innovative and state-of-the-art lectures to secure high quality education, valuable knowledge and groundbreaking methodologies, while the universities expect their students to be given business experience e.g. through internships and opportunities to put their skills into practice. The academics also expect to be given the opportunity

to transfer theoretical ideas into practical projects and to implement research in the real world.

Both parties have fundamental points of interest and this is where a win-win situation is achieved for both of them. With students being well educated in new methodologies and the corporate experts transferring these innovations into practical projects which involve the students, we will soon be able to see how the collaboration can bring about mutual advantages.

Companies which do not have a close relationship to the academic community are expected to advance slower. They

miss out on early access to the latest research results and methodologies and then need more time to put these methods into practice. By being out of touch with a university, its students and young professionals, they become less attractive as prospective employers and often find it more challenging to recruit graduates and commit them for their first 2-3 professional years.

It therefore seems much more effective for a company to collaborate with the academic world than not.

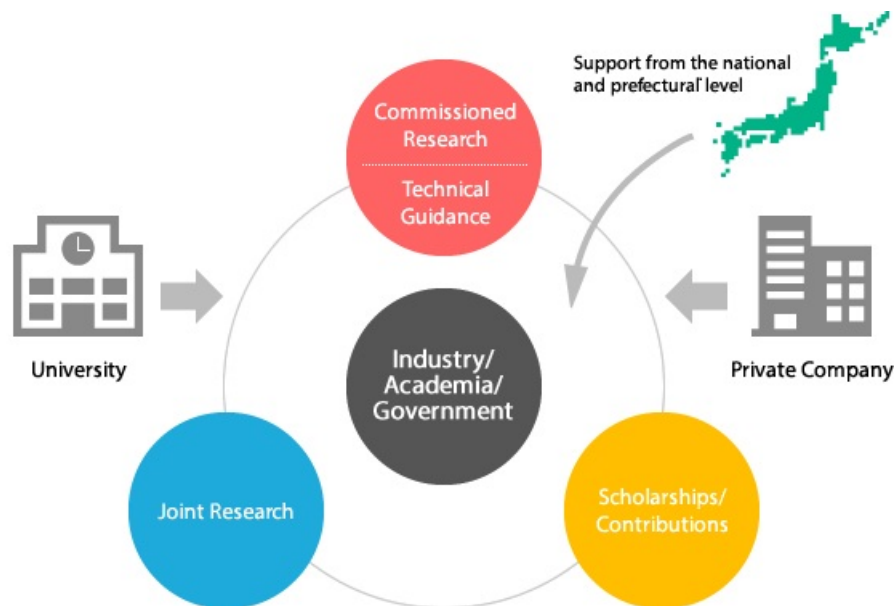


Fig 1: Academia-Industry and Government Collaboration Model

Outcome of Article

The effect of the different cultures

The culture of a university has significantly changed over the years. “Today, Indian universities often have a sophisticated corporate mission and are managed accordingly. We should not forget that students have a voice which is taken seriously by universities. Preparation for their future management challenges is of key importance to them. Strong collaboration with companies through internships or cooperative study programs, guest lecturers who are experts in their fields, cooperation in projects between universities and companies or even endowed chairs – this all shows how open the university culture has become.”

The role of professors is also changing. In addition to safeguarding research and top quality lectures, they are now called upon to act as business coaches and supervisors for collaboration projects. As part of their education, students develop new solutions for the corporate challenges faced by companies throughout their organizations. These projects are often semester-long assignments and, in contrast to contract research, are mainly without cost for the companies. Students learn how to make their methodologies tangible in real life situations. Stepping beyond a merely theoretical approach, professors need to put across the skills to help their students transfer ideas and strategies into practice.

Differences between sectors

This type of collaboration can be found throughout the various business sectors. “There is mutual influence between a wide

range of academical and industrial fields. One of the crucial factors for collaboration often seems to be the location of a university. For example: if a university is located in a strong textile cluster, there will naturally be more collaboration with textile companies. Students need to be able to conduct a workshop or interview on site, directly at the company or campus, without mobility problems. However, the professors still want to provide them with a broad range of experience and to forge relationships to different industries and companies of various sizes, both in the region around their universities and beyond those regions.”

How consulting companies can benefit from academia

There are two win-win situations for an academically-oriented consulting company: firstly, having selected professors as competence partners in their closer network, the consulting company can benefit from knowledge transfer, research results and new methodologies, giving them a competitive advantage in the end. Secondly, the university and students benefit from this type of collaboration since the output of cooperative projects boosts the amount of practical expertise and experience which professors can draw on for their lectures. Strong business experience is exactly what modern students expect. With a deeper insight into corporate life, it is easier for the professors to develop case studies and real-life examples which are of greater relevance to their students.

“Increasing numbers of students prefer to take part in a company’s corporate life rather than working in one of the

traditionally typical student jobs. The companies themselves profit from the long-term commitment students give to them”

Companies can expect to see multiple benefits, if their HR departments cooperate with the academia

- Access to universities and a long-term relationship with students, right from the beginning of their studies or at least at a very early stage

- Securing permanent high recruitment potential
- Since these companies also have a strong presence at universities, this fosters their employer branding
- Close relationship with students at a very early stage, they usually run an assessment center to choose the best students

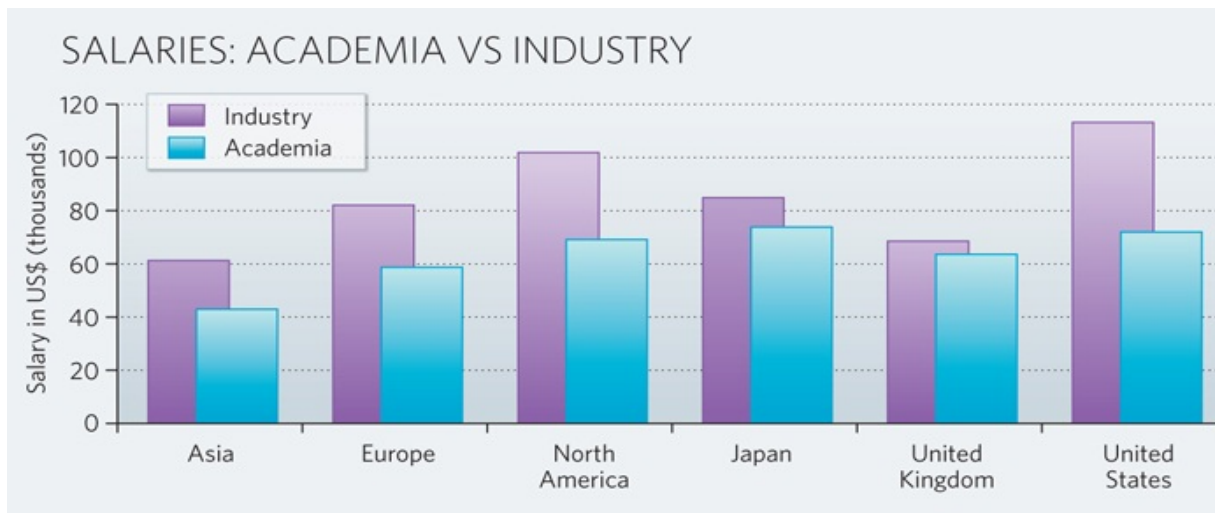


Fig 2: Salaries: Academia vs Industry

Benefits for students

- Students gain a deep insight into companies from the beginning of their studies and a good understanding of the current challenges and management topics
- They can align their studies to the real needs of the cooperating company and therefore get a good start in high-expertise jobs
- “Training on the job” begins at a very early stage

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