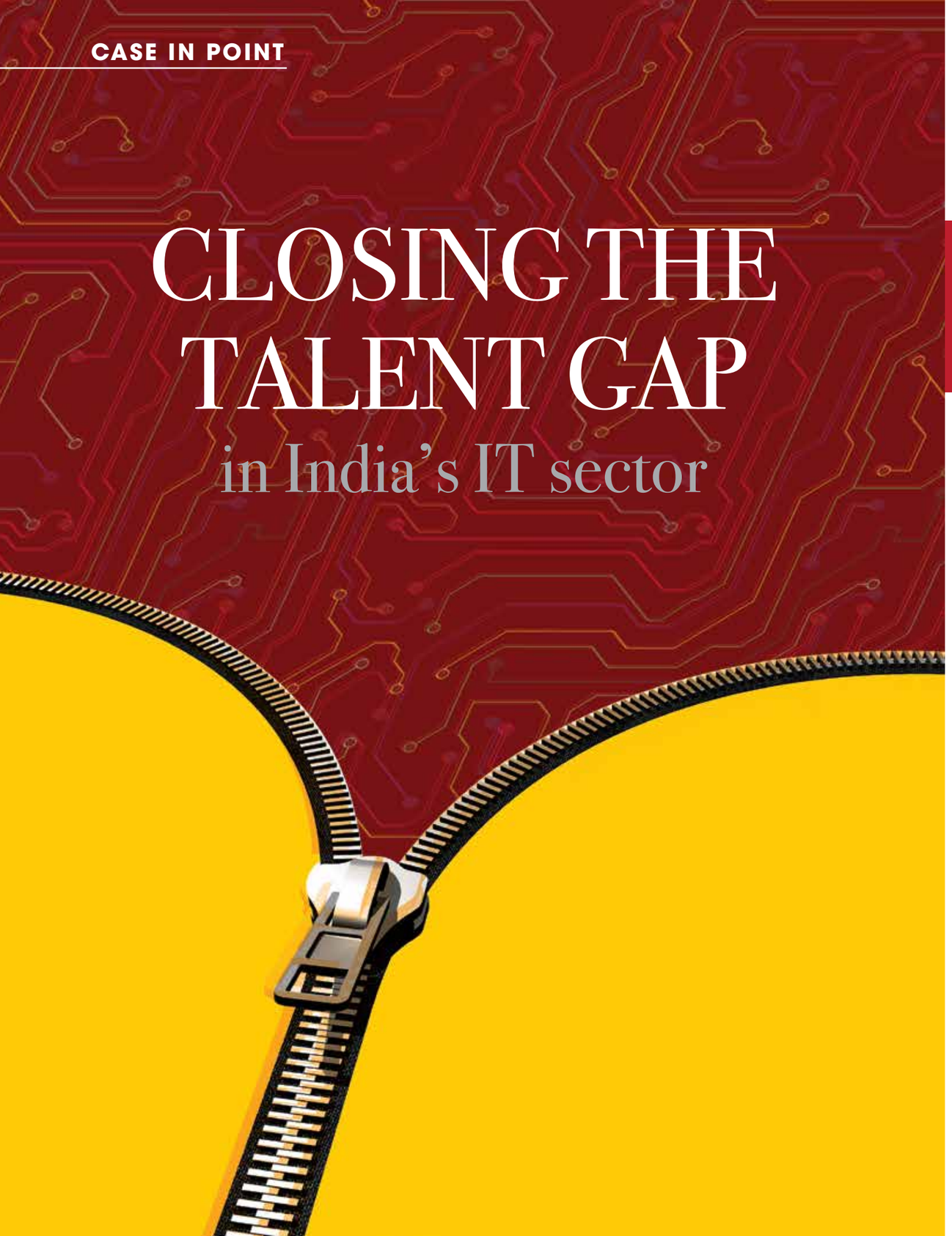
CASE IN POINT

CLOSING THE TALENT GAP in India's IT sector



By Arnoud De Meyer and Peter Williamson

How Infosys reduces partnership risk through ecosystem management

What is especially remarkable about the Campus Connect programme is that by virtue of its design, it is able to significantly reduce principal-agent risks within large-scale, multi-organisational collaborations.

Infosys, one of India's largest information technology (IT) consulting firms, developed the Campus Connect programme in response to the growing belief among India's IT industry majors that fresh graduates being recruited from the country's engineering colleges were neither readily employable, nor sufficiently industry-ready. The programme was designed to address this problem through an industry-academia initiative to revamp the education experience of engineering students. The goal was to build a sustainable partnership between Infosys and engineering education institutions for mutual benefit, producing high quality talent for the IT industry. This would be carried out through a range of programme components that Infosys would collaborate on, and develop with, academic institutions.

The programme was launched in May 2004 with 70 Indian colleges. By 2013, it had been scaled-up to cover 400 colleges, where more than 180,000 students and 8,300 faculty members across India had benefited from the programme's technical and soft-skills training and exposure to industry practices.

In the programme's first eight years, the number of Infosys recruits increased from 8,000 to over 20,000. Moreover, the recruitment conversion and yield from participating Campus Connect colleges were higher than non-partner colleges. These new cohorts demonstrated marked improvements in applying engineering principles to practical situations, along with better teamwork, project experience, cross-function networking and communication skills.

What is especially remarkable about the Campus Connect programme is that by virtue of its design, it is able to significantly reduce principal-agent risks within large-scale, multi-organisational collaborations. For instance, the internal mechanisms and structure of the programme contain certain key elements that encourage organisations to partner in the programme, share costs, ensure compliance and create synergies.

In this respect, Campus Connect has become more than the sum of its parts. Essential to achieving this is a framework that creates a talent ecosystem, which is scalable, sustainable and measurable. The various elements of the programme all fit together such that Infosys captures a competitive advantage, improves partner capabilities and successfully nurtures a talent pool that benefits the entire IT industry.

INFOSYS MILESTONES

1981 : Infosys is founded by six engineers in Pune with an initial capital of US$250
1993 : Infosys goes public
1999 : Revenue reaches US$100 million, lists on NASDAQ
2006 : Revenue reaches US$2 billion
2008 : Revenue exceeds US$4 billion, net profit of US$1 billion
2011 : Employee count reaches 130,000
2012 : Revenue hits US$7 billion, company ranked as one of the most innovative in the world by Forbes

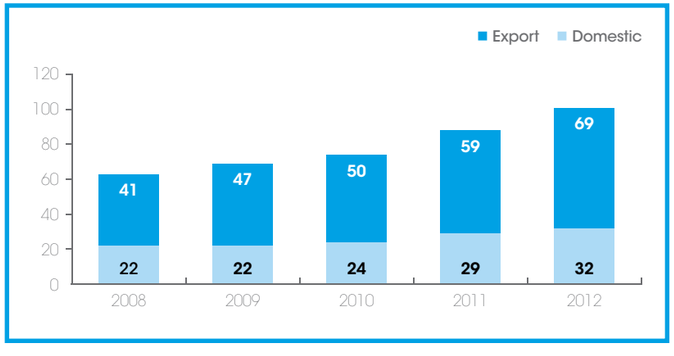
At a quantitative level, there was a growing chasm between the needs of India's high-growth IT industry and the availability of a group of skilled, employable engineering graduates.

Infosys

Infosys was founded in 1981 for a meagre US$250 by seven people. Today it is recognised as a global leader in the IT industry—reporting revenues in excess of US$7 billion and a workforce of more than 155,000 employees in 69 offices and 87 development centres throughout the world. It provides business consulting; technology, engineering and outsourcing services to help world-class clients in over 30 countries.

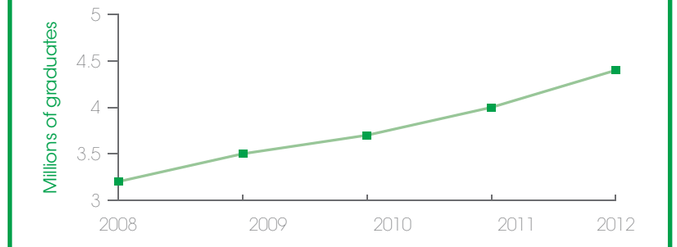
These services require more than technology and engineering expertise. Infosys employees must understand the nuanced needs of clients along with the intricate complexities of their businesses. Building a strong relationship with clients and working with them on collaborative problem solving is thus an important aspect of Infosys's success, where as much as 97.8 percent of Infosys revenues come from existing repeat customers. In this industry, talent is key.

MARKET SIZE OF THE IT INDUSTRY IN INDIA (US$ BILLIONS), 2008-2012



Source: India Brand Equity Foundation, IT & ITeS, NASSCOM, March 2013

GRADUATE ADDITIONS TO TALENT POOL IN INDIA (MILLIONS)



Source: India Brand Equity Foundation, IT & ITeS, NASSCOM, March 2013

India's IT industry

In the mid 1990s, U.S. companies began to outsource back-office operations to India, which had an abundance of cheap, but skilled, labour in the IT field. By the 2000s, the sector was booming and becoming increasingly competitive. Large investments into IT infrastructure and research and development soon paved the way for more advanced products and service offerings well beyond back-office operations like call centres.

From the mid-2000s, India's IT sector firms had established themselves as large multinational companies with global reach, often making cross-border acquisitions. By the 2010s, these firms collectively boasted 560 centres spread across 70 countries, directly employed 2.8 million people and indirectly employed another 8.9 million.[i]

But despite India's large number of engineering graduates and substantial investments in training and development, the industry's spectacular demand-driven growth continued to outpace the IT sector's capacity to source and develop adequate new talent.

The talent gap

At a quantitative level, there was a growing chasm between the needs of India's high-growth IT industry and the availability of a group of skilled, employable engineering graduates. At a qualitative level, fresh recruits from the engineering colleges displayed a real lack of industry-readiness in terms of industry orientation and the ability to apply their theoretical knowledge to practical use and problem solving. There was also a clear competency gap with regards to soft skills, process awareness and English language proficiency.

Infosys was hesitant to address this gap solely through in-house training and development. Not only would such an option be expensive, it would also put Infosys at risk of talent poaching before it could recover its human resources investment. Moreover, it would not address the root cause of the talent shortage.

Campus Connect

It was with the intent to address this talent gap, that in May 2004 Infosys launched the Campus Connect programme. The key objective behind the programme was to evolve a scalable, measurable and sustainable model through which Infosys and academia could partner together to enhance the quality of IT education in India, thereby improving the employment prospects and industry-readiness of the students, as well as augmenting the overall talent pool available to meet the growing demand in the IT space. The programme was designed as an industry-academia collaboration to align the competencies and capabilities of the overall engineering graduate workforce with the industry's needs. Irrespective of where graduates were sourced—from a metro or a rural area—there needed to be consistent quality throughout the talent pipeline.

This ambitious goal required Infosys to work with a wide spectrum of stakeholders. This included the management, faculty and students of partnered academic institutions; as well as practitioners in the IT industry and regulatory bodies. With such massive collaboration, creating stakeholder alignment could be problematic given the potential for principal-agent risk. Infosys therefore needed a comprehensive solution to reconcile potential conflict amongst so many competing interests and create an ecosystem that delivered worthwhile benefit to all stakeholders.

Key elements of collaborative alignment

ADDING CLEAR VALUE TO PARTICIPANTS

As the lead organisation in the Campus Connect programme, Infosys needed to entice the engineering institutions into joining the partnership, especially since these schools must contribute significant resources to develop curricula that answer the call for more IT industry-ready graduates. Infosys addressed this challenge by taking a holistic approach, first by assessing stakeholder expectations, and then by developing programmes that catered to partners' needs.

The benefits of such programmes are clear: an institution's partnership

CAMPUS CONNECT: KEY STATISTICS

Campus Connect Top Level Information				
Item	FY10	FY11	FY12	FY13
# Partnering institutions	411	435	474	395
# Campus Connect Conclaves	2	8	1	0
# Technical Workshops conducted for the faculty	16	19	19	15
# Faculty enabled through Technical Workshops	696	744	887	709
# Soft Skills Workshops	24	9	20	9
# Faculty enabled through Soft Skills Workshops	919	292	613	320
# Road shows	142	124	141	111
# Seminars in Institutions (Technical/Soft Skills)	26	47	80	60
Foundation Program (FP) Rollout-Technical				
# Batches completed	373	307	339	304
# Institutions that completed at least one batch	189	142	173	152
# Students completed FP	24333	19551	21665	19700
Soft Skills (SS) Program Rollout				
# Batches completed	162	240	194	200
# Institutions that completed at least one batch	72	95	56	58
# Students completed SS	8167	13496	12240	11962
Technical Electives				
# Batches completed	11	63	141	133
# Students completed	2319	8857	19845	15288
Soft Skills Electives				
# Batches completed	NA	28	19	26
# Students completed	NA	1830	1017	1690

enhances the employability of its graduates by facilitating a closer relationship with industry. The faculty also benefits as involvement in the programme gives them the opportunity to take part in sponsored sabbaticals at Infosys, and to collaborate on research papers. By providing students with more exposure to the industry through field trips and internships at Infosys, the employability and industry readiness of this group is further enhanced. Finally, Infosys, and the IT industry in general, benefit from the reduced training time that results from industry-aligned curricula and the soft skills training gained through internships and industry exposure.

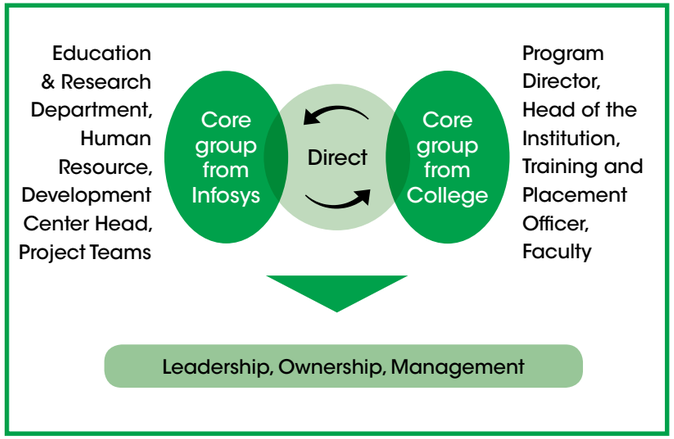
DEFINING DISTINCT PARTNER ROLES

Campus Connect is essentially a relationship between two core groups: Infosys and partnered institutions. This relationship is officiated during a conclave in which these organisations come together and share expectations about one another as to what Campus Connect can offer. During the conclave, a Memorandum of Understanding (MoU) is signed whereby roles, responsibilities and resource commitments are secured, and an action plan is drawn up to initiate programme rollout.

The actual operations of the programme are then managed by a dedicated group of 15 Infosys staff that builds and maintains relationships between the core groups, facilitates and implements action plans, reviews the programmes, and evaluates the performance of partnered institutions.

Infosys also segments the partnered institutions as either member colleges or advanced colleges. Member colleges are those that have recently joined Campus Connect and have since commenced conducting joint programmes and satisfied the objectives set during the conclave. Advanced colleges are former member colleges that have significantly progressed and integrated programmes into their curriculum. These colleges could also be those that have effectively implemented co-created industry electives that have

GOVERNANCE MODEL



significantly impacted the partnership. These institutions are recognised as best in class amongst partner institutions and have exceeded their action plans and stated deliverables. They show continuous and consistent improvements in student performance, graduate employability, and have often demonstrated innovative initiatives. Only colleges in the advanced category are offered Infosys-sponsored sabbaticals, joint prototype development and additional research sponsorship support.

In the event of failed objectives, a partnered institution may be dropped from the programme.

ENCOURAGING PARTNER INVESTMENT AND GAINING EFFICIENCIES

The conclave deliberations establish governance to the relationship by defining roles, responsibilities and core processes. At first this relationship was largely unidirectional, with most of the responsibility with Infosys. But as the programme evolved, the responsibilities and costs of Campus Connect are now much more evenly distributed and the relationship has become better balanced.

A COMMITMENT TO FLEXIBILITY

The structure of Campus Connect is designed to be highly adaptable and capable of evolving to meet new challenges. This is important given the unique qualities of the different regions in India and the distinct characteristics of the hundreds of partnered institutions, which include different academic calendars. A centralised programme would have been inadequate.

A distributed model is also more scalable than a centralised system, another important consideration given that there are some 5,000 engineering institutions in India. It further ensures that every institution receives a uniform Infosys experience, irrespective of where they are located. This hub-and-spoke model succeeds in forging lasting relationships with alumni and provides a solid emotional connection between people within the partnership, thereby creating more vibrant institutions.

CAPTURING THE VALUE OF THE ECOSYSTEM

Campus Connect also deploys an online Campus Connect Portal to facilitate transparency and communication within the programme. It provides easy access to courseware, information and collaboration on student projects, campus news and events, business English lessons and a variety of other programme-oriented services. It has proved exceedingly popular, with about 11,000 faculty and 250,000 student registrations from 2004 to 2012.

The portal also includes a programme management scorecard that evaluates the institution's Campus Connect programme offerings within the context of the action plan and deliverables to stakeholders as specified in the MoU. The scorecard enables the Campus Connect management team to plot the performance of the overall programme and work with stakeholders on strategising future direction. In this respect, the portal is more than a communication and content sharing tool—it is a management tool, a reporting tool, and a decision-making tool critical to driving continuous improvement and vibrancy.

Infosys also evaluates the effectiveness of the Campus Connect programme internally by regularly reviewing its recruitment impact to ensure that it maximises quality new hire yield, monitors high performers and minimises attrition.

In addition, Infosys conducts surveys among partner institutions to measure how well Campus Connect benefits them as well. For instance, in a 2012 survey, the partner institutions reported that graduate employability had increased, on average, by 40 percent. These institutions also experienced better-ranked students in their intake and decreased faculty attrition.

The ecosystem advantage

It is through elements such as clear added value for stakeholders, structured

KEY MECHANISMS USED TO CREATE ALIGNMENT AND REDUCE PARTNERSHIP RISKS IN THE INFOSYS ECOSYSTEM AND CAMPUS CONNECT PROGRAMME[ii]

Objective	Criticality	Implementation and Campus Connect
Pinpointing added value	Pre-requisite to cover inevitably higher costs than vertically-integrated structures	Campus Connect has a clear value proposition for stakeholders
Structuring differentiated partner roles	Essential to achieving the benefits of specialisation and focus for individual partners, and promoting cooperation over competition	Campus Connect explicitly delineates roles between partner groups
Stimulating complementary investments	Enables the lead firm to amplify the impact of its investment and create potential for increasing returns to scale	Campus Connect aligns the costs with partner roles and the value proposition
Reducing transaction costs	Key to minimising an important cost disadvantage relative to vertically integrated structures	Infosys provides technological capabilities that reduce transaction costs, such as the Campus Connect web portal and webinar capability
Enabling flexibility and co-learning	Flexibility and accelerated co-learning are important potential advantages relative to vertically integrated structures	The Campus Connect programme model is highly decentralised and distributed. This allows for flexibility in both location and offerings
Engineering value capture mechanisms	Ecosystems have a risk of 'free-rider' problems where the network architecture established by the lead firm creates value for participants but fails to capture value for itself	Partnership in Campus Connect works through specified deliverables stated in an MoU. In addition, the Campus Connect programme portal uses a scorecard to rate partner institutions and also measures the performance of programme offerings

and differentiated partner roles, co-investment, reduced transaction costs, flexibility, and value capture mechanisms, that Infosys is able to secure a successful ecosystem advantage through its holistic approach to collaborative alignment.

Moreover, effective ecosystem management has become increasingly important in addressing the challenges inherent in a progressively complex and connected world. Problems more often exist in multiple dimensions where collaborative action has become essential. Organisations that succeed in this endeavour will strengthen their competitive advantage and be better able to adapt to rapidly changing circumstances and uncertainty, especially if they seek to take on greater leadership and align stakeholder interests. However, there needs to exist a robust set of properties, mechanisms or rules to maintain collaborative alignment and enhance adaptability.

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Reference

[i] India Brand Equity Foundation, IT & ITeS, NASSCOM, March 2013.
[ii] Williamson, P.J. and De Meyer, A., 2012, "Ecosystem advantage: how to successfully harness the power of partners", California Management Review, 55(1): 24-46.

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