



India's IT growth depends on learning and development

Leveraging tech skill development to close skills gaps and speed time to market

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Executive summary

In the face of global economic disruption and the pandemic, the Indian information technology (IT) industry has shown extraordinary resilience. As one of the biggest IT capitals in the world, India has built a reputation for driving business innovation through IT-enabled services, including customer relationship management, business process outsourcing, database updation, and software development.

IT organisations are increasingly focusing on developing skills like agility and flexibility among employees as they reimagine business models and work patterns to maintain continuity. More critical is the widely acknowledged tech skills gap in a competitive global market.

Technology skill development (TSD) is a key business priority for India's IT and IT-enabled services (ITeS)—and a key strategy to bridge the tech skills gap while mapping workforce upskilling and reskilling.

This perspective paper explores the following questions:

- *Are Indian IT organisations ready with the requisite tech skills for the present and the future?*
- *How are IT organisations building tech skills, and what is the role of TSD?*
- *How will integrated tech skills platforms accelerate the pace of future using evolving L&D strategies?*

The IT industry in India: Powering the economy

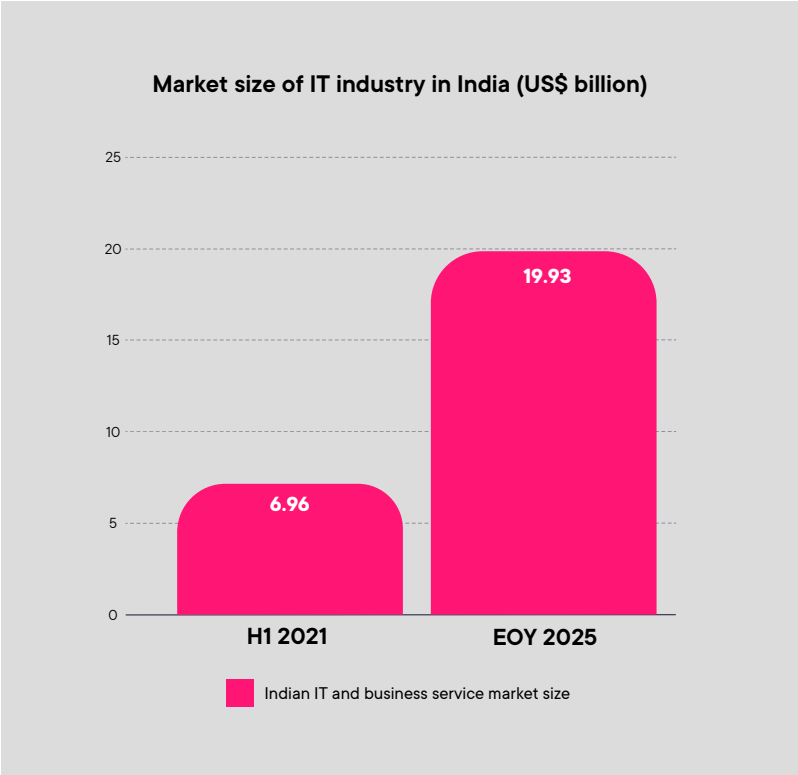
Tech workforce development is top of mind in India’s IT industry—and there’s a good reason why.

India’s IT industry has been the backbone of the economy for over two decades with a global footprint of delivery centres across the world. As things stand, the IT and business process management (BPM) industry is equitably diversified across verticals such as banking, financial services and insurance (BFSI), telecom, and retail. Major IT organisations are on the path to increasing strategic alliances between domestic and international players to deliver solutions across the globe.

A few facts about India’s IT industry:

- The sector contribution to India’s gross domestic product (GDP) has risen from about 1.2% in 1998 to 8% in 2020 and now stands at 9%.
- The industry employs about 4.5 million people as of FY 2022 (IBEF, February 2022).
- Industry body NASSCOM shared that the growth of the IT sector is estimated to rise by 15.5% to USD\$227 billion during 2021–2022. NASSCOM has recorded this growth as the highest since 2011, with all subsectors of the industry recording double-digit growth. The industry will add USD\$30 billion to last year’s revenue.

The graph below illustrates the market size of the IT industry in India in USD\$ billion with a comparison between H1 2021 and H1 2025 as outlined by the latest India Brand Equity Foundation (IBEF) findings. Key finding: The IT industry market size is expected to triple by 2025.



Source Here

India is the topmost offshoring destination for IT companies across the world.

- The Indian IT and business services industry is expected to grow to USD\$19.93 billion by 2025.
- IT service exports from India have the potential to reach USD\$1 trillion by 2030.
- According to Gartner estimates, IT spending in India is expected to increase to USD\$101.8 billion in 2022 at a 24.31% YoY increase.
- The Indian software product industry is expected to reach USD\$ 100 billion by 2025.

Moreover, the IT industry is spearheading diversity, equity, and inclusion and helping create an equal and inclusive economy. Women accounted for 44% of the total new employees inducted over the last year (IBEF).

This growth in market size and workforce has put tech skill development top of mind for India's tech leaders. They're looking for ways to stay competitive—and closing skills gaps is a solid strategy.



Staying relevant as technology evolves

COVID-19 accelerated digitisation. Constant competition and business transformation have required IT businesses to become more agile to keep pace and add value to the ecosystem of stakeholders and consumers. This agility has led to a learner's mindset, enabling the IT industry to maintain business while keeping their people safe.

Simply put, the pandemic has “fundamentally accelerated” the process of digital transformation across industries, and companies equipped with digital technology will be more resilient and able to adapt faster to any tail event, Microsoft CEO Satya Nadella [shared](#).

Veena N. Deshpande, Senior Director, Technology Training Delivery/L&D, HR, at Capgemini, states, “At Capgemini, we observed an increasing need during the pandemic to upskill and reskill our employees in the new and emerging technologies that required immediate attention. We were able to effectively leverage our vibrant learning ecosystem to launch several new learning initiatives through our digital learning platform ‘Next’ and enabled various processes for onboarding, upskilling, and reskilling digitally.”

Faced with the accelerated automation, stronger push towards e-commerce, movement towards remote work, and online learning, many skills—and with that, jobs that require on-site presence—will have to be modified, or they may end up redundant or non-existent post pandemic.

Bridging the tech skills gap

Global IT leaders understand their position as responsible corporate citizens. They realise they must remain inclusive leaders as they consider business priorities and create the right recruitment strategies, equally helping their existing employees scale up, grow, and contribute to the organisation.

Infosys' CEO, Salil Parikh, shared in a [recent forum](#) that in addition to the company's sharp focus on client transformation, upskilling employees and clients will continue to be a key area for investments.

Maintaining the balancing act is indispensable to sustained and inclusive success. This implies there is a strong need for businesses to acquire new talent strategically and open up empowering opportunities for learning.

In a recent [interview](#), HCL Technologies CEO, C Vijayakumar, said that the company was looking at acquisition of companies with niche skills in the **USD\$50 – \$100 million** revenue range. Incidentally, [HCL Technologies](#) has secured a place in the top 10 on LinkedIn's list of 2022 Top Companies in India. Employee skills growth ranked second among the seven pillars that LinkedIn used to evaluate top workplaces.

The challenge for business is how to stay current with emerging technologies and trends while keeping an eye on the future.

The way ahead is a multitude of advanced tech skills revolving around AI and machine learning: robotic process automation (RPA), edge computing, quantum computing, virtual reality and augmented reality, blockchain, Internet of things (IoT), 5G, and cybersecurity.

Salil (Infosys) [observes](#), "The key, really, for college graduates as they're coming out is to be aware that their

skills are going to need refreshing much faster than people who've come 10 to 20 or more years before. In the past, what could be a 10- or 15-year runway to a skill now is going to be three to five years. So, the most important thing to keep in mind is that you have to constantly learn new things. And that, itself, is a skill to keep in mind as college graduates come out."

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—Salil Parikh, CEO, Infosys

Are Indian IT organisations ready and prepared for these trends? A McKinsey report finding said almost 90% of respondents admitted that skills gaps already exist at their workplace or are expected to arise within the next five years.

A widening skills gap was also highlighted by NASSCOM's survey report, which states that over 50% of Indian professionals will need to upskill to perform their job. The skills gaps will continue to grow and need to be addressed.

Usha Raghunath, National Vice President, Coaching Council WICCI, ICF-PCC Leadership & Executive Coach, observes, "The people-resourcing landscape is complex. There is the microcosm of the business leader and his managers. There is also the macrocosm of the talent landscape at the global, national, or even within an industry ecosystem. The successful blend of these may determine the success of business and the availability of a thriving employment environment."

IT companies have the strength of their global footprint that they consistently leverage for the Indian talent pool. These companies are investing heavily in upskilling because they understand it delivers a powerful ROI.

Some trends and directions:

- Channels of recruitment are increasing, and organisations are effectively picking newer models. Content providers and learning platforms provide training content and create a pool of job-ready talent for organisations to pick from.
- Large IT products and services organisations are continuing to sign memorandums of understanding (MoUs) with Indian universities for setting up tech labs and innovation hubs to catch talent early.
- IT organisations are working towards collaborating and creating industry standard platforms that can assess an individual's skill when joining the organisation and for existing employees to see where they stand. This helps bridge the gap between the proficiency level and investment required for a particular role.
- Premier management and institutes, such as the Indian Institute of Management (IIM) and Indian Institute of Technology (IIT), have emerged as tech innovators. Dr S. Raghunath, Professor of Strategy, Chairman, South Asia Chapter of the Academy of International Business (AIB), Indian Institute of Business, Bengaluru (IIMB) comments, "The incubation centre at IIMB supports tech start-ups navigating early stage challenges. These start-ups eventually show promise to grow and create relevant tech skills and employment."
- Indian companies, such as Tech Mahindra, Wipro, Infosys, and Tata Consultancy Services (TCS), are constantly exploring unique ways to create a single interface for tech skill development. In fact, in FY 2022, the top three Indian IT companies, TCS, Wipro and Infosys, are expected to offer 1.05 lakh job opportunities due to the increasing demand for talent.
- Tech Mahindra Foundation and Wipro GE Healthcare have joined forces to offer upskilling courses to students and healthcare technicians.

However, there is still a huge potential talent market for organisations to tap into.

Technology skill development (TSD): Build and nurture

Technology skill development (TSD) strategies can enable businesses to build a stronger talent pool, drive faster innovation, and accomplish better outcomes with less effort in less time.

TSD differs significantly from compliance training. Many organisations ask employees to complete courses on topics such as password hygiene. These one-size-fits-all, moment-in-time courses provide a common vocabulary for the whole workforce, so everyone is in alignment and understands expectations.

While one-size-fits-all training can help an organisation meet goals, such as reducing phishing compromises, it does not prepare teams with the skills for specific roles and projects.

In contrast, TSD is a process that aligns an organisation's skill development investments with its strategic business priorities. This process starts with identifying business goals and the roles required to accomplish those goals. In turn, each role requires a specific skill set. Which of these skills do employees have today, and what will they need to learn for upcoming projects?

Technology skill development is the most efficient way to continually upskill technology teams, representing an organisation's ability to use technology skills as a competitive advantage and driver of business outcomes. Aaron Skonnard, Pluralsight CEO, states, "Just as sales leaders rely on CRM and product leaders on CX, the most strategic CIOs and CTOs are relying on technology skill development (or TSD) to continuously outperform and outpace their competition."

Tailored TSD

A staggering 75% of the market doesn't qualify as having a proactive skill development strategy—and without action, the gap between an organisation and its competition will only widen. Businesses must mindfully implement TSD to accelerate success and establish competitive advantage.

Here are a few tips for implementing a TSD program:

- Start from the top—seek IT leader and CIO and/or CTO sponsorship
- Hire a development leader who has a deep understanding of the organisation's business and technology strategy combined with best practices to execute a skills strategy aligned to goals
- Create a baseline of the skills on hand
- Begin to upskill teams into needed roles with skills mapped to strategic initiatives
- Get L&D, HR, and tech leaders to collaborate and design a comprehensive yet realistic upskilling strategy
- Evolve with the pace of change

FIS Global, a global fintech company, is ensuring that adequate resources are invested in learning and upskilling. As Manish Bijlan, Senior Director, Digital Transformation (Head of Training) at FIS Global says, “We connect with our people managers and business leaders from time to time and have their buy-in that our teams would commit to at least 24 hours of learning investment. At year end, employees up to a certain band level are required to account for time, effort, and outcomes of training attended as recommended, which would have a significant resonance on their performance.”

Organisations now tailor training programs that are categorised according to complexity, which allows employees to choose how much time and effort they would like to invest. This facilitates effective planning, tracking, and measuring ROI.

Manish states, “Our overall goal was to bring in a T-shaped skill set into almost all our workforce, so as to maximise productivity potential and skill utilisation.”

TSD enablement

TSD requires a clear roadmap to show the connection between learning programs and strategic business objectives. An interactive workbook, such as Pluralsight's "[Technology skill development: Preparing your teams for digital transformation](#)," walks tech leaders through TSD best practices and includes everything they need to develop a TSD plan tailored to their organisation's goals:

- The key questions they need to ask
- Guidance on the decisions they need to make
- Tips for defining and measuring outcomes
- Troubleshooting ideas if they aren't getting the results they need

Indian IT organisations need to take advantage of valuable resources like this workbook to build and maintain their competitive edge.



Investing in future skills: The cloud story

Large global IT conglomerates remain committed to embracing change, thinking out of the box, and exploring ways to diversify, build skills, and develop talent—all while staying ahead of the curve.

Place this in the context of digital transformation: Enterprises are looking for agility, scalability, lower costs, and reduced risks. Cloud offers all these and more. For start-ups and small businesses, cloud-based services offer the advantage of agile and cost-effective operations and a market opportunity to build services. The wave of digitisation has peaked in the past two years, and every industry sector, organisation, or business is in some stage of their cloud journey. Forrester Research expects the global cloud computing market to grow 35%.

With this massive shift towards cloud-based operations, the next industry challenge will be availability of skills to cater to the cloud. From an India perspective, NASSCOM's future skills report projects that India's demand for cloud skills will grow to 2.3 million professionals by 2023, but the industry will face a skills gap of almost 1 million professionals.

Some of the key cloud computing skills that will be in the supply vs. demand gap paradigm and the focus areas of organisational investment over the next three years include:

- Cloud security
- Machine learning and AI (machine learning as a service and AI as a service)
- Cloud deployment and migration across multiple platforms
- Database skills (SQL, MongoDB)
- DevOps

Sailu Khambampati, Cloud & Custom Applications Head, Capgemini India, states, “Cloud skills were once treated as a niche area, but given the rate at which businesses are changing and adapting to cloud, these skills are becoming a commodity. We will need to grow exponentially in training our people.”

Organisations can scale their cloud skills roadmap by adopting advanced integrated learning platforms that focus on Agile learning, testing environments, sandboxes, and award micro-certifications.

Case in point for integrated learning platforms is A Cloud Guru, a cloud skills development platform acquired by Pluralsight. ACG has helped 2,000,000+ engineers and more than 4,000 organisations level up their cloud skills.

ACG customers are IT and IT-enabled services (ITES) organisations that have adopted effective learning through the platform and leveraged it to help accelerate learning at scale.

Capgemini University remarks on the overall ACG experience, “Our cloud learning program has the key objectives of getting our people hyperscaler certification-ready. With that theme in mind, Capgemini Group engaged with ACG to procure licences for learners to accelerate certification preparations. Learners enjoyed hands-on experiences like Cloud Playground and found the hyperscaler course content very insightful.”

Learners using tech skills platforms, such as ACG, can widely leverage the chapters, modules, and labs and practise cloud computing concepts like creating services and resources and benefitting from a robust tracking mechanism.

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—Sailu Khambampati, India Head, Europe CCA at Capgemini

Future upskilling: The balance between speed to delivery and billable hours

Many organisations, such as Wipro, TCS, Infosys, Accenture, Capgemini, Cognizant, and Mphasis, view the mandate between speed and billability as an ongoing opportunity for enablement, co-existing harmoniously with the pull model.

There is a value in getting teams up to speed on new tech skills. It increases the billability of employees and keeps project planning sharp and teams lean and efficient.

For new talent: Structured training programs are tailored according to the forecasts of the business through last-mile learnings. L&D teams engage with tech and business to ensure this balance.

For existing talent: “Skill to bill” becomes the targeted training methodology, which means upskilling employees to ensure even and minimal rotation between being part of a project and sitting on the sidelines.

L&D teams work towards assessing the minimum (or adjacent) skills that facilitate easier, faster reskilling or lateral movement to make the employee billable for projects. This is also an effective way to help the employee acquire personalised development. L&D teams drive this as a push model in accordance with project deployment timelines.

The pull model offers proactive capability-building programs that double as a retention strategy:

1. Organisations offer employees learning opportunities and dedicated time for study.
2. Employees upskill and reskill in high-demand topics like cloud and cybersecurity.
3. Better skills and experience improves talent mobility and reduces attrition.

Investing time in self-paced learning through different platforms allows employees to upskill without impacting their work and realise more ROI than expected.

Manish (FIS Global) states, “We have established a continuous ideation culture via company-wide events and project-specific innovation sprints. Our tech teams review ideas/feedback sourced from a central repository on enhancing speed of delivery via refinements in business, support, and technology adoption processes. The technical (development and support) teams generally use online learning platforms for getting trained, including hands-on labs for gaining in-depth understanding and expertise in technical areas.”

Ongoing course corrections in L&D and enablement strategies

The future of work is driven by the confluence of technology and people-related disruptions and further accelerated by COVID-19. This is challenging leaders across fronts, forcing them to reimagine learning.

While L&D is an ongoing process in any organisation, L&D, HR, training, and tech heads align and recommend frequent reviews and course corrections to their strategies.

Manish (FIS Global) states, “It is important to understand the skills gap in today’s time where technology is changing at a fast pace. It is important to keep track of technologies required in ongoing projects and enable tech teams to adapt them. This helps increase productivity and save on the time it takes to gather a team with required skill sets.”

Some insights in L&D identified by a Deloitte and National HRD Network (NHRD) study suggest that learning strategy and business models need increased interlinking (virtual/digital delivery).

Virtual is here to stay, but delivering the learning experience is key. Over 60% of leaders who took the survey conveyed that the focus of L&D teams has shifted towards more interactive content that uses facilitator-led live trainings, simulations, and panel discussions over conventional modes.

Almost 74% of organisations expressed that they do not want to buy content anymore and are focusing on curating personalised learner-centric content through their L&D teams. About 80% of organisations want to build content curation as a key capability within their L&D teams in the future.

Stacey Rivers, Director, Tech Human Capital Management, WarnerMedia, remarks, “L&D and tech leaders also need a system to help their teams to keep up with tech, build business critical skills, and apply them on the job in record time.”

With the right approach to developing skills in a personalised way to support each employee’s learning journey, L&D and tech leaders can reliably build skills across the organisation and be future-ready from both a skills and business outcome perspective. The right partnerships in tech learning solutions can augment and accelerate the L&D tech skills strategy exponentially.

[Learn more about tech skill development at Pluralsight.com](https://www.pluralsight.com)