



RP-Sanjiv Goenka Group

Growing Legacies

MAY 2023 • FORTUNEINDIA.COM

NEW-AGE SKILL GAP P.26 | INDIA'S AGRITECH REVOLUTION P.50

# FORTUNE INDIA



AKASH AMBANI



ISHA AMBANI



DEVANSH JAIN



NIKHIL KAMATH



KARAN ADANI

# 4040

UNDER

YOUNG LEADERS WHO STOOD OUT FOR THEIR IMPACT ON BUSINESS

# THE NEW SKILL

THE ECONOMY IS CREATING MILLIONS OF JOBS  
IN NEXT-GEN SECTORS LIKE SOLAR POWER,  
ELECTRIC VEHICLES, SEMI-CONDUCTOR AND  
DEFENCE, BUT COMPANIES NEED TO UPSKILL  
THEIR EMPLOYEES FIRST.

# A G E L G A P

BY AJITA SHASHIDHAR  
AND NEVIN JOHN





**C. JAYAKUMAR**, CHRO of engineering and construction behemoth Larsen and Toubro (L&T), faced a strange dilemma last year — his recruitment team, a regular on campuses of all leading engineering colleges, managed to give offer letters to only 1,500 students. The requirement of the 200,000-strong workforce company (which has forayed into new-age businesses such as hydrocarbon, green hydrogen, EV batteries, defence, and other heavy engineering projects) was much higher, but it struggled to get talent that suited its needs. That's when Jayakumar decided to advertise for freshers. "We received over 75,000 applications, which went through a detailed process of assessments on our L&T-Edutech platform, followed

by interviews. We hired 1,500 engineers through this process. The engineers also went through a one-year induction training programme," explains Jayakumar. For defence equipment and manufacturing jobs, the company had to hire mechanical engineers; for electric batteries, it recruited electrical engineers.

As India prepares for an economic transformation through self-reliance in manufacturing, energy transition from fossil fuels, and attempts to lead in new emerging tech areas such as green hydrogen, EVs and 5G, the talent deficit is wider than ever before. Semiconductor, 5G equipment manufacturing, climate technology and carbon capture, EV batteries, medical equipment manufacturing and defence manufacturing have all laid bare the talent gap and an enormous challenge before some of India's largest business houses such as Tata Group, Reliance Industries, Adani Group, Mahindra and Vedanta is to find ways to bridge that gap.

Advanced skill sets required to handle these businesses at all levels could increase India's GDP by \$508 billion, according to a recent report by Amazon Web Services and Gallup. The demand for new skill sets has opened myriad job opportunities across sectors. For instance, there are 3.5 million jobs available in information security straddled across sectors — technology, manufacturing, telecom, banking and defence. According to The World Economic Forum, by 2025, 85 million jobs could be displaced by a shift in the division of labour between machines and humans. However, 97 million new roles are expected to be created and driven by advances in technology such as artificial intelligence, IoT, machine learning and robotics, the report adds. A back of the envelope calculation by senior executives of India Inc. pegs

## JOB OPPORTUNITY

**97**  
MILLION

New roles expected to be created by 2025, led by artificial intelligence, Internet of Things, machine learning and robotics

**3.5**  
MILLION

Jobs available in information security across sectors such as technology, manufacturing, telecom, banking and defence

### SECTORS IN TRANSITION

Solar power; 5G equipment manufacturing and services; semiconductor; climate technology and carbon capture; EVs; medical equipment manufacturing; green hydrogen; green ammonia; defence

Traditional sectors such as FMCG, automobile, construction and steel are also embracing technology in a big way, which will lead to job creation

SOURCE: WORLD ECONOMIC FORUM/INDUSTRY

such emerging job opportunities (direct and indirect) at 25-30 million in the next five years.

Getting onboard employable talent is the most important conversation in boardrooms today. "Talent is the biggest challenge for growth," says Jayakumar. In the past couple of years, L&T has invested over ₹100 crore in training alone to make its hires employable.

The country's largest technology company, TCS, with a workforce of over 600,000, is also facing a similar chicken-and-egg situation. The company hired 19,000 freshers last year and has spent virtually the entire year training them to be equipped with future-ready skills. "The talent needs to have a deep understanding of how to marry technology with current market needs. How does AI work in a manufacturing set up or how do I manage a plant virtually? All these technologies are going to play a significant role in every aspect of the value chain

**WITH BUSINESS MODELS CONSTANTLY EVOLVING, WE NEED TO ENSURE OUR TALENT HAS THE SKILLS WHICH THE CUSTOMER WOULD ASK FOR IN FUTURE."**

**Milind Lakkad, CHRO, TCS**



of every industry, and understanding that is very critical," says Milind Lakkad, CHRO, TCS. Business models are getting redefined and new business areas are emerging, creating the demand for a workforce with new skill sets, he adds.

The Tata Group, for instance, is completely shifting its focus from thermal power to renewables and from IC engines cars to electric cars. The group also has joint ventures with Boeing and Airbus to manufacture aircraft in India. It is also ramping up precision engineering business and enhancing ties with Apple Inc. by supplying components for their iPhone.

Reliance Industries, on the other hand, is building five giga factories for renewable play, in addition to its massive investment in 5G. The Adani Group has also announced its ambitious renewable energy plan and has got investments from French energy giant Total Energies. Anil Agarwal-promoted Vedanta Resources recently entered into a joint venture with the world's leading contract manufacturer, Foxconn, to set up a display fabrication unit, integrated semiconductor fabrication unit, and OSAT facility in Gujarat at an investment of \$20 billion. Like the Tata Group, Mahindra & Mahindra is also ramping up its EV offerings.

## C

### Changing Landscape

With diverse sectors wanting similar skill sets, talent specifications have got blurred. Electric vehicles, for instance, is completely software driven. "The architecture of mobility has changed completely. There will be sensors everywhere. So, we need software engineers for electric car making," points out Soumitra Bhattacharya, president and MD, Bosch. "Engineering companies are competing with IT firms for talent. We can no more segregate engineering from IT and vice versa," he adds. No wonder then that finance minister Nirmala Sitharaman, in Budget 2023, announced the setting up of 30 International Skill India Centres as part of the Pradhan Mantri Kaushal Vikas Yojana 4.0. At these skill centres, on-the-job training, industry partnerships, and alignment of courses with needs of the industry will be emphasised. The scheme will also cover new-age courses such as coding, AI, robotics, mechatronics, IOT, 3D printing, drones and soft skills.

The Union Budget has also announced setting up of dedicated multidisciplinary courses for medical devices to ensure availability of skilled manpower for futuristic

medical technologies, high-end manufacturing and research. The medical devices industry says, G.S.K. Velu, chairman and MD, Neberg Diagnostics, is a ₹80,000 crore industry, of which ₹50,000 crore is dependent on imports. Encouraging manufacturing of medical devices in India could lead to the creation of 10-20 lakh jobs. "For us to produce these equipment, a lot of work is needed around skill development. We have to hire engineering and biotech graduates and start teaching them, which will take at least 2-3 years," says Velu.

In the banking sector, as digital banks become a way of life, the most sought-after skill set is cyber risk or understanding risk through technology. "I would put skilling in three buckets — traditional new-age skills housed in technology, data and IoT; getting technology and data literacy across functions, and risk skills," explains Rajkamal Vempati, CHRO, Axis Bank.

# T

## The Contradiction

There are jobs everywhere, but as L&T's Jayakumar points out, the challenge is the availability of skilled talent. According to a Teamlease report, though there are over 500 million Indians in the working age, one out of two are not employable. Only 49% of Indian youth is employable, points out the India Skills Report. According to the National Employability Report for Engineering, 80% of Indian engineers don't possess the required skills.

This brings us to the question, why tech giants such as Google, Microsoft, Amazon and Meta have cut down 50,000 jobs cumulatively when there is such a huge demand for tech talent? The main reason seems to be the lack of talent with necessary skill sets. Most companies don't have necessary skill sets in artificial intelligence and Cloud, an integral part of business models for companies across industries.

"The industry is correcting itself, it's (the recent layoffs) a much-needed correction in terms of capacity and the price at which this capacity has been hired. A lot of people were hired without the real skills that were needed for the problems to be solved," says Vidya Sagar Gannamani, chairman and MD, Adecco India.

"While there is a lot of hue and cry over layoffs, it's happening because companies' strategies have gone for a toss... If you continue to hire desperately it will hurt the organisation," adds Rituparna Chakraborty, co-founder and executive director, Teamlease Services.



## HOW COMPANIES ARE TACKLING IT

- **HUL** is upskilling 3000-strong frontline sales workforce; it recently launched an apprenticeship programme, as part of which it is hiring talent from undergraduate colleges and training them in frontline roles.
- **Tata Group** is rethinking its talent architecture and plans to invest heavily in HR across firms.
- **TCS** is partnering with academia to teach students specific technologies, and also how they can be implemented in industry contexts.
- **Axis Bank** has partnered with Manipal University and NIIT to launch schools for fintech, java and data analytics; the bank has tied up with Coursera to hire students.
- **RIL** has also partnered with Coursera; it plans to build 5 giga factories for photovoltaic cells, energy storage, green hydrogen etc in Jamnagar; around 15,000 people have already been recruited.

"There is definitely a skill gap but there is raw talent in abundance too. Industries need to democratically tap the talent and grow it," says Lakkad of TCS.

# J

## Jobs Galore

The Tata Group is aggressively pursuing opportunities in industries such as aircraft manufacturing, defence, FMCG, electronics, semiconductors, organised retail, payments, battery manufacturing and storage solu-

tions. It is also upbeat on 5G technology, infrastructure and hyperloop technology, among others. The group's legacy businesses such as steel, automobiles, power and chemicals are also embracing new-age technologies such as data analytics, AI, IoT, blockchain and metaverse in order to stay relevant.

New businesses, and transition of the old ones, will create ample job openings. The group plans to disrupt traditional models of human resources by rethinking the talent architecture. "Human resource development is one of the key areas for the group. We will invest heavily in HR across companies. We want our people to have knowledge and access to 21st century skills, be it technology or creativity or more methods of agile working. We also want to empower and skill millions in society which will make them employable," says Tata Sons chairman N. Chandrasekaran.

Tata Power is building a 4,000MW solar module manufacturing plant at Gangaikondan, near Tirunelveli, Tamil Nadu, at an investment of ₹3,000 crore. The project has an employment potential of 2,000 jobs. The company has also set up the Tata Power Skill Development Institute, which is "rolling out skill development courses in solar photovoltaic system for electric vehicle charging, installation and maintenance of rooftop solar photovoltaic, and installation of smart metres, among others," says Himal Tewari, CHRO, and head CSR and sustainability, Tata Power.

Tewari claims the company has trained around 3,000 youth in green energy jobs in FY23 and will



scale up the number to around 5,000 by 2025. It has so far trained 1.4 lakh people across its courses in conventional and renewable energy technology.

FMCG major Hindustan Unilever (HUL) has recently done a skill analysis of its 3,000-strong frontline sales workforce. The company is trying to transform from a traditional distribution-led business into a 'consumer-tech' business. "Most of them (employees) have fantastic selling and influencing skills. What we need to move them towards is to be data-driven and that is what we will give them through a mix of classroom and on-the-job training," explains Anuradha Razdan, executive director, HUL. The company's way of dealing with skilled talent gap is to upskill its existing employees as opposed to hiring. The ₹53,000 crore FMCG major is committed to upskill its 21,000-strong workforce by 2025. "We are driving a rigorous upskilling programme on our shop-floor, so that each of our operators moves up the skill ladder," says Razdan. The company has partnered with the likes of Khan Academy and ITI to upskill its shop-floor employees.

L&T also has a lot of jobs coming up in construction technology and management, apart from openings in its new-age businesses such as hydrocarbon and green energy. "We have tied up with IITs and other colleges. They do projects with us and then join us," says Jayakumar. "We are not just designing courses, but are also looking at training and deploying talent," he adds.

Healthcare is another important industry. From pharmaceuticals, para-medical to medical education and health tech, the industry employs over 2-3 crore and there is constant need for talent. "There are millions of jobs that can be created. There are so many new technologies coming up, therefore there is an urgent need to upskill," says Velu of Neuberger Diagnostics. The new technologies range from diagnostics to prognosis and from robotic surgeries to person-

**SKILL ON ITS OWN WITHOUT CONTEXT IS NOT USEFUL FOR ANYONE. INDIA IS SOON GOING TO BE THE FINTECH CAPITAL OF THE WORLD AND WE NEED TO BUILD PEOPLE FOR THAT."**

**Rajkamal Vempati, CHRO, Axis Bank**

## SKILL DEFICIT

# 2

MILLION

Jobs in AI, cyber security and blockchain likely to remain vacant in 2023

# 52

PER CENT

Employees need to reskill themselves in the next 2 years to stay competitive

# 35

PER CENT

STEM graduates of FY21 are employable, but the remaining 65% would need upskilling

SOURCE: TEAMLEASE

alised medicines.

The demand for skilled talent exists in the semiconductor industry as well. Vedanta-Foxconn plans to invest ₹1,54,000 crore to set up a semiconductor manufacturing facility in Gujarat, which would create over 1 lakh jobs. Since the technology is extremely advanced, the joint venture partners will have to train their manpower from scratch.

# T

### The Dilemma

Lack of skilled talent is giving India Inc. CEOs sleepless nights. The demand-supply gap, according to a recent Nasscom report, will increase 3.5 times by 2026.

Not addressing skill deficit, therefore, could pose serious risks for businesses, employees and society, says the Teamlease report. It could lead to lower productivity, sales and revenue and unprofitable delays in new launches, which can result in losing ground to the competitors. In fact, a 2022 survey by Deloitte says that labour and skill shortages are the second-most cited external factor disrupting business strategy. "If you think about the thrust towards bringing manufacturing home, it can be across multiple sectors such as pharma, solar, renewable energy and consumer products. We need a serious amount of skills in process engineering, product engineering etc. If you go up the value chain, we need skill sets in development, research and development, industrial design," points

out Ganammani of Adecco India.

One of the major reasons for this wide skill gap is the archaic curriculum of schools and colleges, which focuses on theoretical knowledge. "There is a huge transmission loss that happens as whatever they are learning doesn't make them employable," points out Teamlease's Chakraborty.

"The speed of technology is outpacing curriculums of traditional universities. The gap gets multiplied if employers don't have a great employee development programme," adds Apratim Purukayastha, chief product and technology officer, SkillSoft.





# 90 PER CENT

Students coming out of traditional colleges have knowledge but zero skills

AI-ML, blockchain, quantum computing, big data are some of the most sought-after skills.

Whole stack engineers, AI-ML, blockchain, quantum computing and big data are some of the sought after skills today. "A lot of tech companies give their own certification on Cloud, big data, and upskill their employees," points out Sunit Sinha, head, People, Performance and Culture, KPMG in India.

TCS' Lakkad agrees. The tech major is partnering with academia to teach students not just specific technologies, but also how they can be implemented in industry contexts. "When you are talking about electric vehicles, the specific technologies required, the protocols needed in various geographies, and the industry context also have to be brought in. The adoption of technology in that industry is something which is normally not taught in academics," he explains.

**TATA POWER SKILL DEVELOPMENT INSTITUTE IS ROLLING OUT COURSES IN SOLAR PHOTOVOLTAIC SYSTEM FOR EV CHARGING, AMONG OTHERS."**

**Himal Tewari, CHRO, and head, CSR & sustainability, Tata Power**

## HOW TO BRIDGE THE GAP

- Greater industry-government participation.
- Introducing skill-based training as part of curriculum in colleges.
- Apprenticeship programmes by companies.

# T

### The Solution

The need of the hour, therefore, is skill-based training.

The only way to solve the talent crisis is to invest in skilling on war-footing, says Nadir Godrej, MD, Godrej Industries. "There are a lot of untrained people in India, you can skill them and deploy in the workforce."

The answer to skilling could be apprenticeship programmes. "Apprenticeship tied in with academics is the only way for massification of skills," says Chakraborty of Teamlease. "Everybody can't go to IITs and IIMs. So, why not give them apprenticeships while they are in college?" she adds.

HUL recently launched an apprenticeship programme, as part of which it is hiring talent from undergraduate colleges and training them in frontline roles. "We can transform the whole mix of people in the frontline by getting in younger people and giving them more digital skills," explains Razdan.

Sinha of KPMG recommends focusing on contiguous skills. "The basic technology of drones is what works in gaming. Similarly, in solar panel, one needs skill sets in material sciences, so talent trained in aluminum and metallurgical industry could be people who could work there. We need to look at contiguous skills as supply side will take years to change."

In fact, focusing on contiguous skills is the only

logical way to solve the skilled talent challenge, agrees Jayakumar of L&T. The company hires talent from campuses, makes them go through rigorous training and then deploys them. L&T has 18 training institutes across the country. "We do experiential training such as working in heights, confined spaces etc. Since we do tunnel projects, we have a tunnel academy in Kanchipuram. We also have a rail training academy," he explains. The company also has L&T Edutech, which focuses on engineering education.

For TCS, training its workforce isn't new, but unlike earlier, when the company trained its talent to suit customer needs, the approach today is to skill its talent for the long-term. The software major has over 500 learning modules, which it has put together with the help of 45 ecosystem partners from varied disciplines.

Renewable energy major ReNew is roping in experts to help employees upskill themselves, particularly in the cleantech field. "The shortage (of skilled talent) stems from the fact that the cleantech field is relatively new. Educational institutions responsible for creating a talent pool must develop curricula that provide a deeper understanding of careers in the clean-

**WE HAVE TIED UP WITH IITs AND OTHER COLLEGES. THEY DO PROJECTS WITH US AND THEN JOIN US."**

**C. Jayakumar, CHRO, L&T**



tech industry," says Ajay Tripathi, CHRO, ReNew.

Cisco India, in partnership with Nasscom Foundation, runs the Cisco ThingQbator programme across 30 universities. "Students learn about digital technologies in a hands-on environment, turn their ideas into working prototypes, and in the process, curate local solutions to local problems. To date, over 40,000 students have been reached through this programme," says Harish Krishnan, MD and chief policy officer, Cisco India & SAARC.

Axis Bank has partnered with Manipal University and NIIT to launch schools for fintech, java and data analytics. The plan is to launch these schools on other campuses as well, and register on online platforms such as Coursera, says CHRO Vempati. These programmes have a banking context. "Skill on its own without the context is not useful for anyone. India is soon going to be the fintech capital of the world and we need to build people for that," she adds. The bank has also tied up with Coursera to hire students who have enrolled on its platform through its Coursera-on-Campus programme. "Lakhs of students are learning on Coursera with the help of this programme. Axis Bank's hiring strategy is moving to a skills-first strategy," says Raghav Gupta, CEO, Coursera India. Axis is not the only one. A host of others, including India's largest private sector company Reliance Industries, have partnered with Coursera.

"Skilling potential can be raised if companies look into two aspects of skilling — hard skills and soft skills. Hard skills are functional roles, while soft skills are those required in every aspect of the business, from interviews to managing team and tackling customers. Soft skills are the need of the day, which take a company up the value chain," says Dharmarajan Sankara Subrahmanyam, CEO, Impactsure Technologies.

Companies are also outsourcing skills to HR services companies such as Randstad and Addeco India. Randstad has its own skilling academy where it trains IT industry candidates at the entry level. "Since we are their hiring partners, clients are asking us to skill them too. We call it the hire, train and deploy model," explains P. Vishwanath, MD and CEO, Randstad India. The Randstad training module is an eight-week programme (for which it has partnered with NIIT), where students are trained in AI, ML and IoT. "At the end of eight weeks we share an assessment report of candidates who are fit to join and the rest are made to go through another programme. The talent is kept on contract employment and the company deploys them full-time after they are fully ready," he adds.

In a nutshell, India has to skill its workforce on war-footing. Only then can it achieve its dream of becoming a \$5 trillion economy. ■