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CII

Confederation of Indian Industry

PEOPLE PRODUCTIVITY

KEY TO INDIAN MANUFACTURING COMPETITIVENESS

MARCH 2013

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PEOPLE PRODUCTIVITY

KEY TO INDIAN MANUFACTURING COMPETITIVENESS

ARVIND PANDEY

VISHAL SHARMA

March 2013 | The Boston Consulting Group

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FOREWORD

With a gross domestic product (GDP) in excess of US$ 1 trillion, India is touted as one of the world's top emerging economies. A robust manufacturing GDP of US$ 189 billion has propelled India amongst one of the top ten industrial economies. And given its relatively lower labor costs (compared with global peers), and a growing working population, India is in a unique position to become a manufacturing superpower. In fact, if the total working population of India were treated as a separate nation, it would be the third most populous country in the world.

Despite these advantages, India's share of global manufacturing GDP has not increased over the past few years, owing largely to low people productivity (defined as output per employee). Other economies, in contrast, have captured a bigger share of the global manufacturing pie, riding on enhanced people productivity. It is therefore, very critical for Indian manufacturing to initiate measures to enhance productivity of its workforce, so as to surge ahead of global peers.

The National Manufacturing Policy has set a target for India's manufacturing sector to increase its share of national GDP to 25 percent by 2022, compared with 15 percent currently. This will require the industry to expand at a compounded annual growth rate of 14 percent. For the sector to reach this target, an increase in people productivity is of utmost importance.

In this report, we propose a people–focused agenda for Indian manufacturing companies to increase productivity of their workforce, and in turn, enhance their overall profitability. We hope that the industry would understand the importance of the proposed measures in the long term, and companies–along with the policy makers–will take the right steps toward achieving the target set by the NMP!

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Partner and Director
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Mr. K Venkataramanan
Chairman
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EXECUTIVE SUMMARY

INDIA'S POTENTIAL TO BECOME a manufacturing superpower has been discussed time and again. This potential is underpinned by the availability of an abundant workforce and labor cost competitiveness the country enjoys. Not surprisingly, the National Manufacturing Policy has set a target for India's manufacturing sector to increase its share of GDP from 15 percent currently to 25 percent by 2022 (in line with global peers today). Achieving this target will help India become the fifth–largest[1] manufacturing nation globally–up from ninth presently.

Despite the high potential, though, the Indian manufacturing sector has not been able to achieve the requisite growth. The industry's share of GDP has remained relatively flat for over two decades now. The core reason for the below–par performance of Indian manufacturers is the poor productivity of their employees.

An improvement in people productivity can be beneficial across all levels of an organization. At the employee level, it results in higher wages and enhanced job satisfaction. At company level, the direct correlation between profits and resource productivity has been established through research multiple times. And at industry level, increased people productivity leads to improved skills and better working environment—thus paving the way for higher investments and faster economic growth. Therefore, it is critical for the Indian manufacturing sector to work toward enhancing people productivity to achieve the goals it has set for itself.

We propose a people–focused agenda for Indian manufacturing companies to drive a significant increase in people productivity so that they, as an industry, can claim their rightful place among global leaders.

Memo from the Future: Wage War for Talent

It is critical for the Indian manufacturing sector to attract quality talent. A primary survey[2] of placement committees across the country's

top educational institutes suggests that poor job offerings, lack of glamour quotient and lack of awareness concerning potential of manufacturing jobs are some of the key reasons behind students' relatively low preference for manufacturing companies. The survey also highlighted that steps such as brand building, student–connect and awareness activities on the part of manufacturing firms help students in making a more informed career decision. However, in the longer term, the firms need to work on developing a more conducive working atmosphere, providing better employee experience, and repackaging job offerings to suit students' expectations.

Call for Surge: Training and skilling

In India, the demand for skilled workers today far outweighs the supply. There is a huge shortfall of managerial and engineering talent. While the government needs to invest in training infrastructure and vocational training, manufacturing companies should look inward to assign priority to training and skilling. This requires investments in training infrastructure, active collaboration with training institutes, and most importantly, an improvement in their attitude toward training.

Motivate Employees to Drive Change: Engaging Workforce

Engaged employees care about the future of the company, drive innovation, and are aligned with the organization's objectives. In India, it is difficult to have engaged employees in manufacturing companies, due to the attitude of employers toward workers, which has led to a huge divide between white–collar and industrial workers. A case study on ACC's Jamul plant shows how employee engagement transformed the factory from being a disengaged plant (which was close to being shut) to being one of the company's most successful plants. This requires the top management to lead a "People Centric" transformation program, which includes taking genuine steps to make the workforce informed, involved and inspired to drive organizational performance.

India is at a distinctive advantage to grab a lion's share of global manufacturing GDP. However, in order to realize this potential, the industry, the regulators and the government need to collaborate, using the levers at hand.

Notes:
1. Oxford Economics database; projections published till 2020; data for 2022 extrapolated using CAGR from 2012 to 2020
2. BCG–CII Campus Survey on Manufacturing Sector, 2013

INDIA TO BECOME MANUFACTURING SUPERPOWER— FIST FULL OF SAND?

POTENT PROMISE FOR THE top spot. Economic stability, investor–friendly policies and regulations, robust infrastructure, conducive taxation, and easy access to finance are important factors behind a country's ability to realize its growth potential. A country, with the right enablers and policies in place, can build on the above factors over time. However, there are a few inherent factors that are inimitable and can provide the winning edge. These are availability of adequate skilled workforce[1] and labor cost competitiveness.

As shown in Exhibit 1.1, the two factors play out substantially in India's favor. With a sustained labor cost advantage and a working population estimated to top 850 million[2] before the end of the decade, India is destined to become the second most competitive[3] manufacturing destination globally, leaving behind countries like USA and Germany.

Tapping the people advantage well can help the Indian manufacturing sector increase its share of the country's GDP from 15 percent currently to 25 percent by 2022, in line with the target set by the National Manufacturing Policy. This will entail a compound annual growth rate of 14 percent, raising the sector's total output to approximately US$ 650 billion[4] by 2022, and making India the world's fifth–largest[4] manufacturing nation–up from ninth currently.

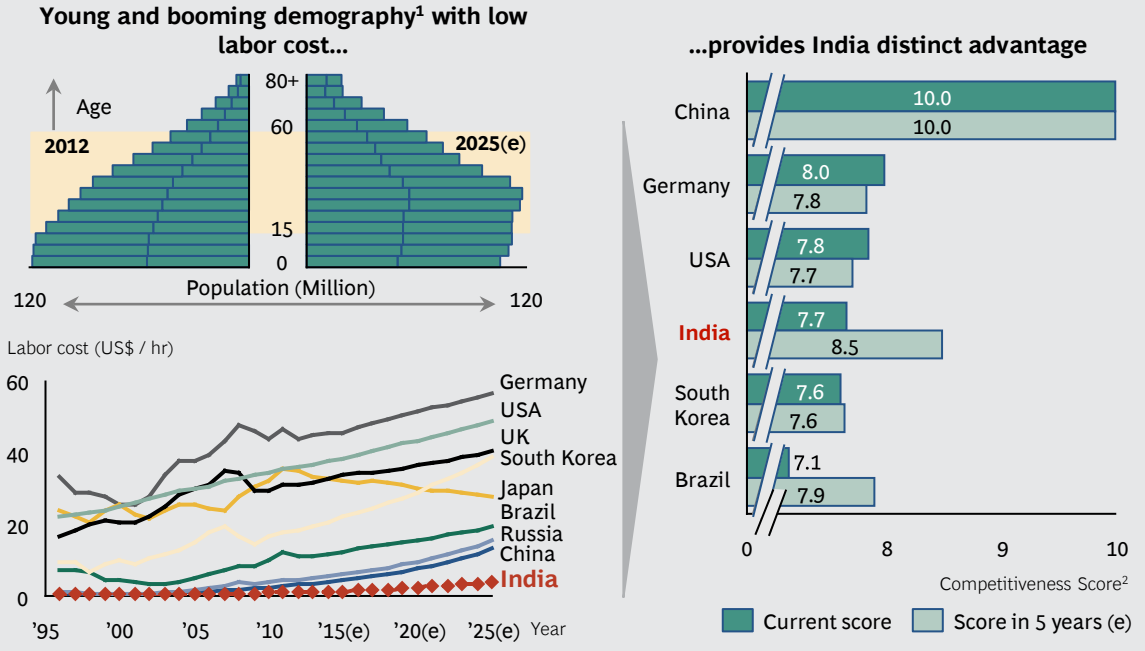
It is worth noting, that every additional job created in manufacturing has a multiplier effect of creating two to three additional jobs in related activities. Consequently, growth in manufacturing will help fuel additional employment for the country's youth and an improvement in people's standard of living. Moreover, considering that manufacturing today accounts for more than 50 percent of India's total exports, an expansion in the sector will boost the country's foreign exchange reserves. Hence, both, the government and the industry, need to initiate strong measures to boost people productivity and thereby enable manufacturing sector to achieve its true potential.

Poor people productivity hurting Indian manufacturing sector

Miles to go Before we Rest

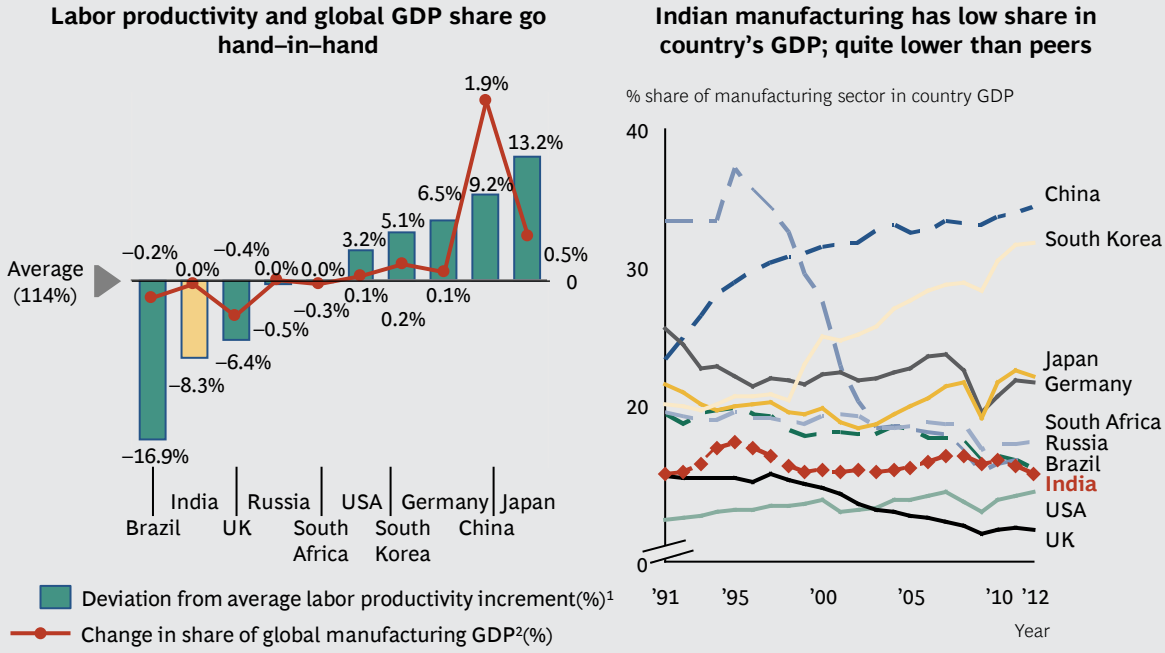
However, Indian manufacturing has not been able to realize its potential. This is mainly a consequence of low people productivity—a key factor that directly impacts the sector's performance. Exhibit 1.2 shows how people productivity has influenced multiple countries' share in the global manufacturing pie.

EXHIBIT 1.1 | India has potential to become manufacturing superpower



Sources: EIU; Oxford Economics; Deloitte Global Manufacturing Competitiveness Report 2013; India Census Report on Population Projections, 2006; BCG analysis.
Note: The EIU database for labor costs per hour, gives projections till 2017. Data till 2025 has been extrapolated using the CAGR between 2012 and 2017. Indian Census Report gives populations estimates for 2026; Data for 2025 extrapolated using appropriate CAGR.
[1]Working age population (15–59 years' age bracket).
[2]Weighted average of scores as given by survey respondents on 10 different parameters, which together make up the competitiveness of a country. The score is on a scale of 1 to 10, 10 being the highest.

EXHIBIT 1.2 | Poor performance of Indian manufacturing



Sources: Oxford Economics; BCG analysis.
Note: Manufacturing GDP in US$ billions, at 2005 prices.
[1]This implies any increase or decrease in productivity the respective country achieved, post recession period 2009–2012.
[2]Change in share of the country's manufacturing sector in the global manufacturing GDP.

Countries such as USA, Germany, Japan, China and South Korea have managed to improve their share of global manufacturing activity through higher levels of people productivity. On the other hand, India, despite its growing economy, has lagged behind[5].

In addition, low people productivity has impacted the share of manufacturing in India's GDP as well. As seen in Exhibit 1.2, the sector today accounts for only 15 percent (approximately) of the country's total economic output, much lower compared to its peers. Moreover, the share has remained relatively flat for over two decades now. If the trend continues, manufacturing output will be restricted to about US$ 400 billion[6] in 2022, falling short of the NMP[7] target by approximately US$ 250 billion.

It is noteworthy, that apart from improving manufacturing efficiency, enhancing people productivity has a cascading effect at multiple levels (Exhibit 1.3). Adam Smith says in his famous work, 'Wealth of Nations'—*"Increased productivity leads to a wealthy society"*. A growing domestic industry, fueled by high people productivity, enjoys a larger share in global manufacturing, thereby improving the country's net exports and bolstering its foreign exchange reserves.

EXHIBIT 1.3 | People productivity is beneficial across

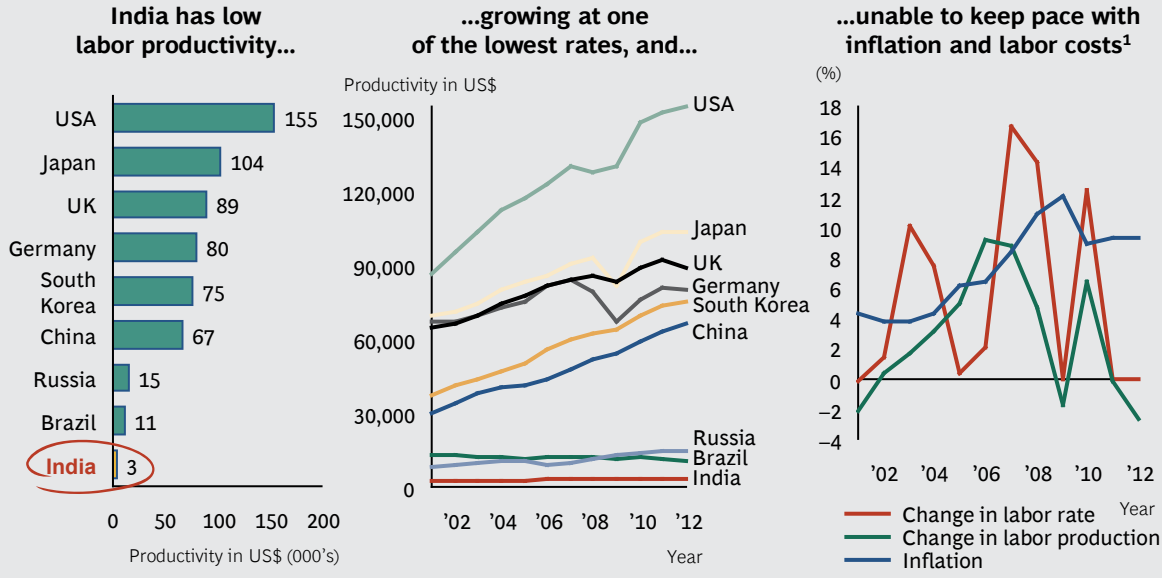
Higher productivity also results in higher profitability and efficiency, making the industry globally competitive, and triggering larger investment inflows. This generates higher tax revenues for the government, which can use the proceeds to further improve infrastructure for the manufacturing industry—thereby boosting the sector's high productivity. This virtuous cycle goes on to foster a thriving economy, and a prosperous nation.

However, as evident from Exhibit 1.4, Indian manufacturing still strives for requisite levels of people productivity, which is the lowest among peer nations. In fact, Brazil—the second–lowest ranked country in the peer group—has productivity more than 3x that of India, while USA (the top–ranked nation) leads India by a whopping 50 times. And, while most of its peers have registered an improvement in people productivity despite the global recession, India continues to stagnate on this front.

Moreover, while people productivity in India has not improved much over the last few years, a faster rate of increase in inflation and labor costs has impacted the profitability and efficiency of Indian manufacturers' operations.

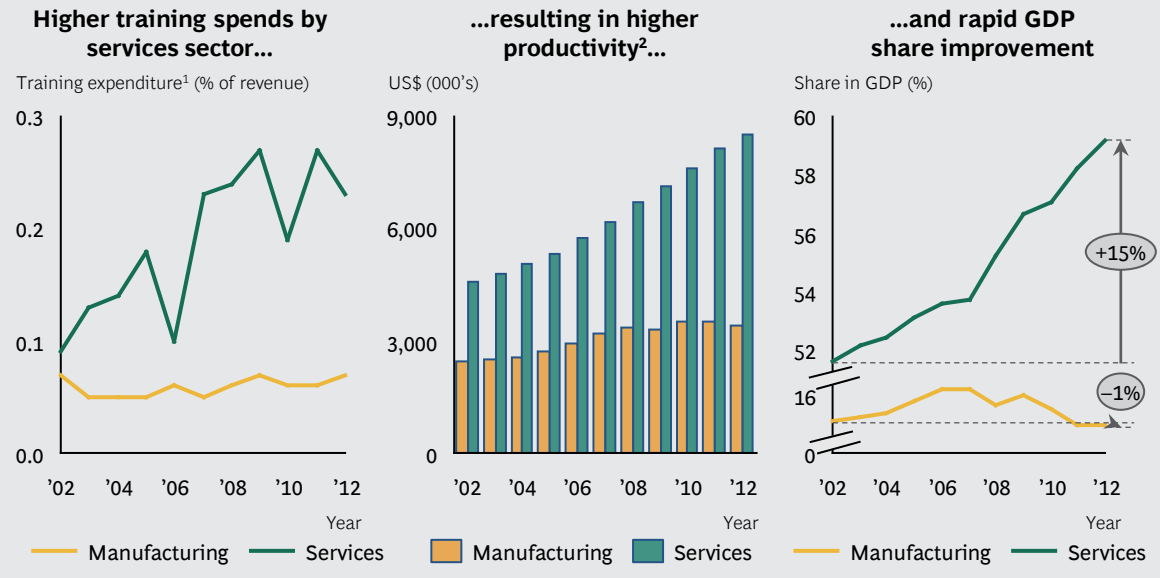
It is important to note that there is a clear relation between investments in training and improvement in people productivity, and consequently, the contribution to overall GDP. Exhibit 1.5 captures this relation, and also illustrates the diverse paths taken by India's manufacturing and services sectors in this regard. The services sector has spent increasingly higher amounts on training in recent years, and has seen a steady improvement in people productivity—thereby improving its share of GDP. On the other hand, investments by the manufacturing sector in employee training have remained relatively flat, resulting in a rather marginal improvement in people productivity. As a result, the share of manufacturing sector in India's economic output has remained virtually flat. This, indeed, is a wake–up call for the manufacturing sector, which needs to put in stringent measures to achieve the requisite levels of staff productivity.

EXHIBIT 1.4 | Indian manufacturing beset by poor people productivity



Sources: Oxford Economics; China National Stats Website; BCG analysis.
Note: Real GDP in US$ has been considered for all the countries. The GDP is at 2005 prices. Labor productivity is defined as GDP per employee.
[1]Data in this graph is for India only.

EXHIBIT 1.5 | India's services sector has improved its GDP share with focus on training and productivity



Sources: Tan & Savchencko, 2005; Prowess; Oxford Economics; BCG analysis.
Note: Real GDP in US$ has been considered. The GDP is at 2005 prices. Labor productivity is calculated by dividing sectoral GDP by the # of employees.
[1]Basis financials of top 200 public & private firms.
[2]Productivity here refers to labor productivity.

People Productivity—Gateway to Accelerated Growth

It is essential for organizations to understand that improving people productivity would require working end–to–end. This includes, not just hiring the right employees, but also training and engaging them in their job functions so as to get them aligned with organizational goals (Exhibit 1.6).

Improving people productivity is an exhaustive process requiring end–to–end ownership

Memo from the future: Wage war for talent

It is imperative for every organization to attract the best talent. This involves tapping high–potential candidates from top educational institutes across the country, in adequate number and at the right time. However, the demand–supply gap with regard to skilled labor has been widening rapidly. Additionally, with a growing economy and a growing services sector, competition for securing talent has turned into a full–fledged war. In order to ensure a healthy pipeline of talent year on year, it is becoming increasingly critical for the manufacturing sector to gear up for the "talent war".

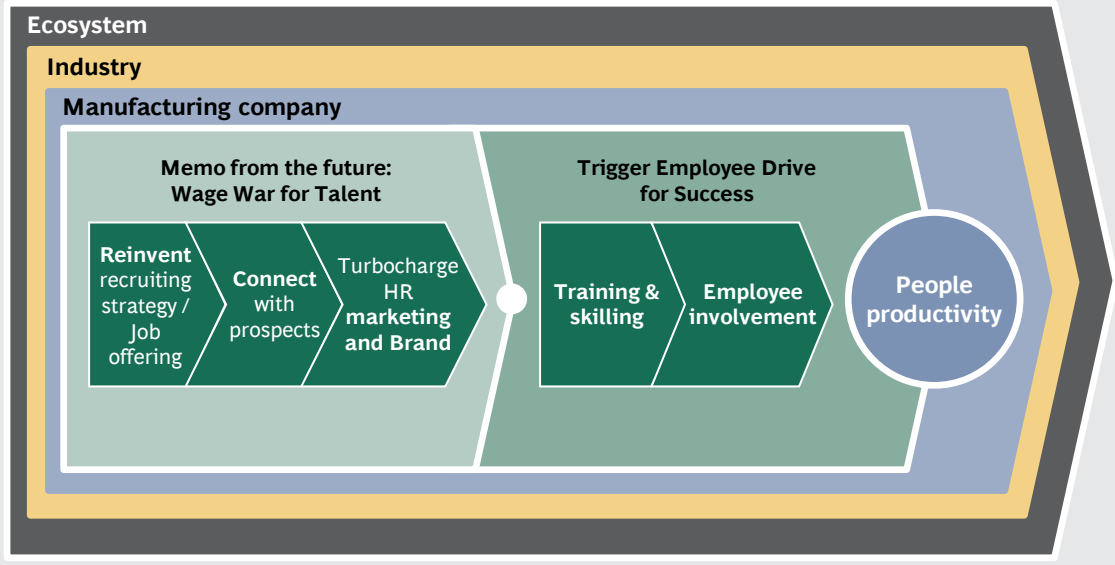
Trigger Employee Success

Hiring the right workers, though, is just the first step in addressing the talent challenge. Employees also need to be empowered to perform their job functions in the most effective manner. Workers can perform well if they receive adequate skilling and training. Employee success is further driven by their degree of involvement in the organization, over and above mere functional deliverables.

Call for action: Skilling and Training

Today, the demand for skilled workers far outweighs the available supply, so much so that the gap itself is higher than the supply. This has led to a huge shortfall in the availability of managerial and engineering talent. In the last decade or so, the Indian government has undertaken several initiatives to make vocational and higher education accessible to masses. Yet, the demand–supply gap for skilled workforce continues to increase. This underscores the need for all concerned stakeholders to act urgently so that the vision for the manufacturing sector can be realized.

Exhibit 1.6 | Productivity improvement entails activating systems for recruitment, engagement and collaboration across levels



Motivate employees to drive change: Engaging workforce

In order to drive optimal productivity, it is imperative for manufacturing companies to engage workers effectively. "Engaged employees" care about the future of the company, and develop a strong emotional bond toward their organization. They drive innovation, and move their enterprise forward. Research has shown that companies with higher employee engagement achieve increased productivity, leading to higher revenue growth, EPS[8] and TSR[9]. Also, with time, the expectations of employees keep changing. Hence, companies need to come up with innovative ways of engaging workers, and aligning their aspirations with broader organizational goals.

NOTES:
1. Workforce (working population) means population in the 15–59 years' age bracket
2. Indian Census report on population estimates, 2006
3. Deloitte Global Manufacturing Competitiveness Report 2013
4. Oxford Economics database; forecast data published till 2020, extrapolated till 2022 using CAGR between 2012 and 2020
5. Improvement in people productivity in India lower than the global average increase during 2009–2012 (post recession)
6. Using GDP estimates from Oxford Economics, and assuming 15% manufacturing share in GDP
7. National Manufacturing Policy
8. Earnings Per Share
9. Total Shareholder Return

MEMO FROM THE FUTURE: WAGE WAR FOR TALENT

STAKES ARE HIGHER THAN before. For Indian manufacturing firms to remain competitive, attracting quality talent has become as critical as acquiring cutting edge technology. With a very low proportion of the entire workforce being skilled, there is massive competition for trained labor—a problem likely to intensify as the services sector continues to expand. And with students showing very low preference for manufacturing as a career choice, the sector is expected to be the worst–hit as far as talent shortfall is concerned. This makes it imperative for firms to gear up, on a war footing, to the challenge of attracting talent.

Low student preference hurting manufacturing sector's ability to attract right talent

The low preference among students for manufacturing sector clearly affects firms' ability to secure the right share of talent from top educational institutes in India (Exhibit 2.1).

Exhibit 2.2 lists down some of the key factors responsible for this trend:

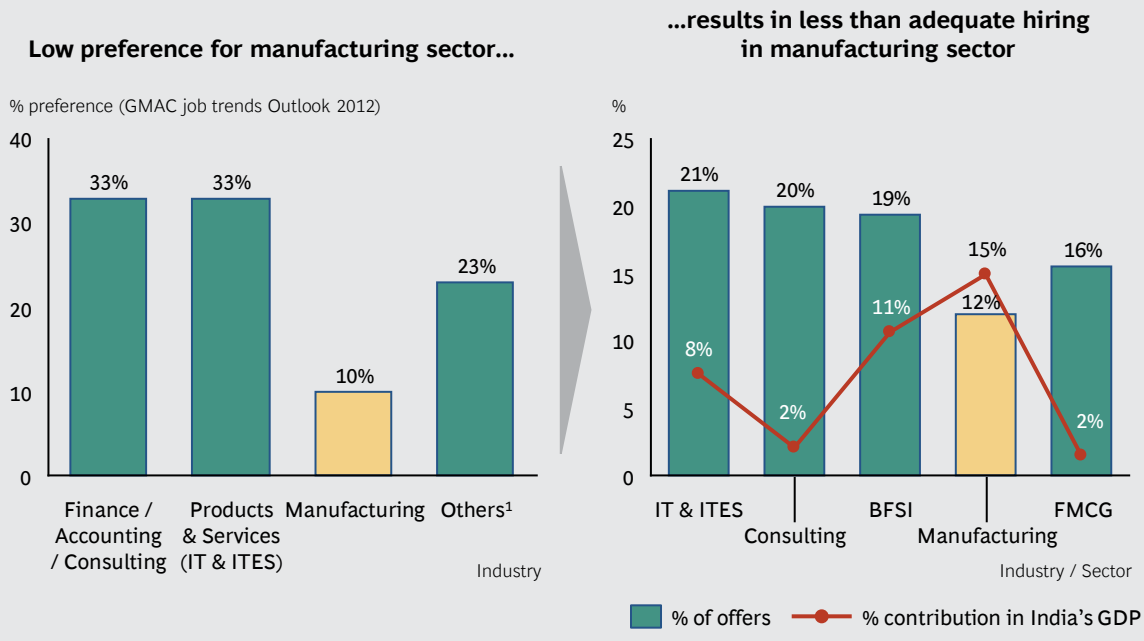
Poor job offering: As seen in Exhibit 2.2, the two most critical discomforting factors cited by students–salary and job location—relate to poor job offerings. The differential between the average salary of a manufacturing worker, compared with that of his counterparts in financial services, or IT and ITES, is higher in India than in countries such as China, USA and Germany. For instance, in India, salaries in manufacturing, with regard to entry–level as well as senior employees, are lower than those in financial services by around 30 to 65 percent—significantly wider than the range of 5 to 25 percent observed in USA

Additionally, job location impacts potential candidates' preference order. Unlike other sectors, manufacturing sector jobs could be based out of industrial townships (usually tier II and III towns).

Also, the job profiles offered by manufacturing companies can be relatively bland (compared with the same offered by their counterparts in the services sector), in terms of designation, variety of work, travel, networking opportunities, etc.

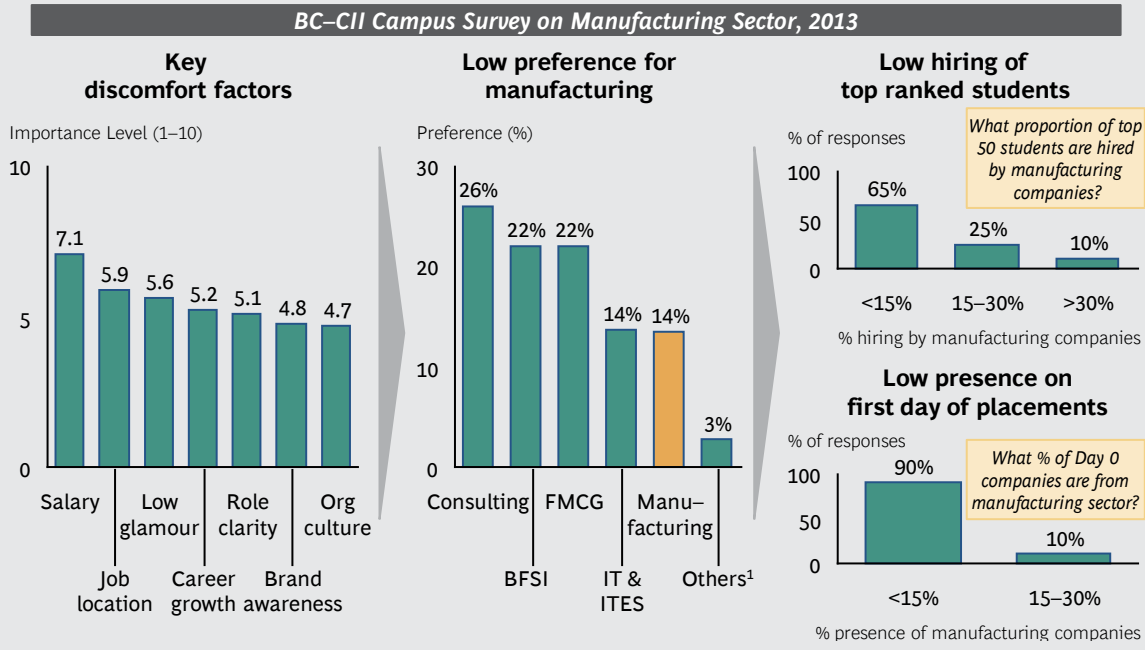
Missing glamour quotient (Poor HR marketing and Brand pull): Manufacturers have to grapple with perception—related challenges that arise due to poor connect with the students, the placement committees and the educational institutes. Moreover, the industry is conspicuous by its absence on campuses, in sharp contrast to the services sector

EXHIBIT 2.1 | Manufacturing sector unable to secure right share of talent



Sources: GMAC Job Trends Outlook 2012, Placement Statistics of Sample Tier I & II B Schools in India, NASSCOM estimates; EIU Database; BCG analysis.
[1]Others includes primary sectors, construction and real estate, pharma, government and other services sectors.

EXHIBIT 2.2 | Low student preference for manufacturing jobs



Sources: BCG–CII Campus Survey on Manufacturing Sector, 2013; BCG analysis.
[1]Others includes primary sectors, construction and real estate, pharma, government and other services sectors.

which invests heavily in campus activities / events.

With time, students' expectations from the jobs have also changed. Students have become more ambitious, and are ready to work for it. In order to woo the right candidates and get recognized as "Recruiter of Choice", manufacturing companies will have to work not only on campus presence, but also on the job profiles offered.

Lack of awareness: Challenges also arise from poor availability of information to students with respect to clarity of job roles and career growth path. Due to a lack of effort by manufacturing firms to disseminate critical information about jobs in their organizations, students tend to believe what they hear from other students, without being able to take an informed decision themselves.

Highway to 'Recruiter of Choice'

Companies today engage in myriad activities in order to maintain a strong corporate image on campus, to develop a personal connect with the students, to understand student aspirations, and to provide maximum clarity about job offerings. It is noteworthy, that in the BCG-CII Campus Survey on Manufacturing Sector, 2013, conducted across top institutes, the manufacturing companies did not perform well, compared to their best–in–class counterparts (Exhibit 2.3).

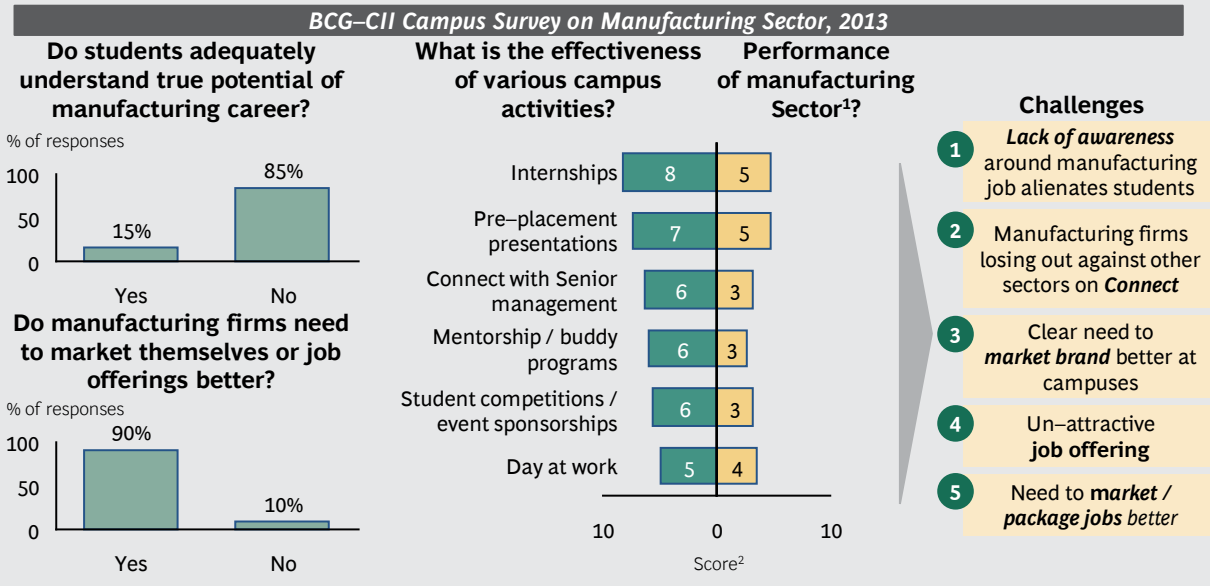
Building brand and connect

As highlighted in Exhibit 2.3, there is an urgent need for manufacturing companies to better market their job offerings among students by providing adequate clarity regarding the career growth path at their organizations. Companies also have to emphasize their key differentiators–ESOPs, fringe benefits, job security (relatively immune to economic fluctuations), better work–life balance and an opportunity to acquire domain expertise through specialization or job rotations–vis–à–vis employers from other sectors. If promoted effectively, these differentiating factors can enable students to envisage the potential associated with manufacturing jobs in the best possible manner.

Manufacturing companies can engage in a number of activities (outlined below) to help establish a strong corporate brand and develop a very close connect with students.

- **Internships:** Invest in interns beyond just

Exhibit 2.3 | Need to perform better on brand building and job offerings



Sources: BCG-CII Campus Survey on Manufacturing Sector, 2013; BCG analysis.
[1]Performance of manufacturing companies, as rated by survey respondents.
[2]Score given by survey respondents, on a scale of 1 to 10, 10 being highest.

the defined scope of work, and groom them to become brand ambassadors for the company

- **Live projects:** Facilitate live projects as part of the course curriculum to further engage with students
- **Leverage alumni:** Encourage alumni of a given college / university working at the company to conduct informal interaction sessions with students, to spread the right word
- **Connect with senior management:** Facilitate a channel of communication with the company's leadership, and provide a peek into the organization's culture
- **Pre–placement talks:** Provide an avenue to students to learn as much as they need to, about the jobs on offer, and various other details such as career potential, role / profile, etc.
- **Mentorship / buddy programs:** Foster an environment for fresh graduates to learn on–the–job aspects of a particular work function and to familiarize themselves with the role, the company, its people, and the wider industry
- **Interview workshops:** Enable students to prepare themselves for on–campus interviews in the best possible manner
- **Sponsorships:** Sponsor campus events in order to create a positive impression in students' minds
- **Merchandise, flyers / posters:** Hand out company–branded merchandise to create a brand recall in students' minds

Brand building, student connect and awareness–creation activities are relatively easier to implement. These factors will have to be kept in mind to get the best out of the campus placement process.

In the longer term, manufacturing firms must work on developing a more conducive working atmosphere, providing better employee experience, and repackaging job offerings to suit student expectations. Once these measures are implemented, companies will also need to assess how best to market the improved job offerings to students.

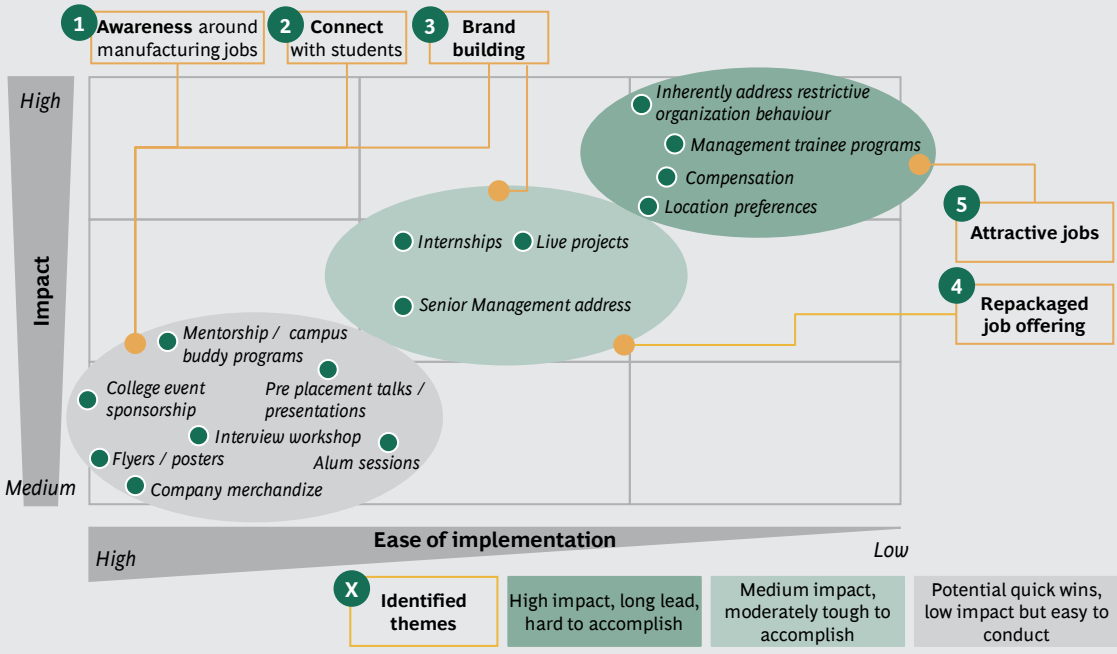
- **Organizational hierarchy:** Address, at a fundamental level, challenges associated with a restrictive, hierarchical organizational structure
- **Career growth:** Clearly map out career growth path for the job role under consideration
- **Fast–track programs:** Develop and conduct fast–track programs for management trainees and future leaders
- **Reduce job monotony:** Build in creativity and variety in work profiles through job rotations (both departmental and functional)
- **Highlight plant location benefits:** Plant location may cause some students to turn down jobs in the manufacturing sector. Companies need to highlight inherent benefits of plant location, such as plant townships, higher savings, self–sufficient campus, etc.
- **Location preferences:** Provide flexibility on location preferences
- **Non–monetary benefits:** Offer non–monetary benefits such as employee discounts, cheap loans, company transportation, flexible working hours, facility to work from home, etc. to provide higher net savings for employees

The best way forward for any organization would be to identify, based on what suits it best, an appropriate mix of brand building, student connect and job offering (Exhibit 2.4).

Integrated sourcing strategy is the need of the hour

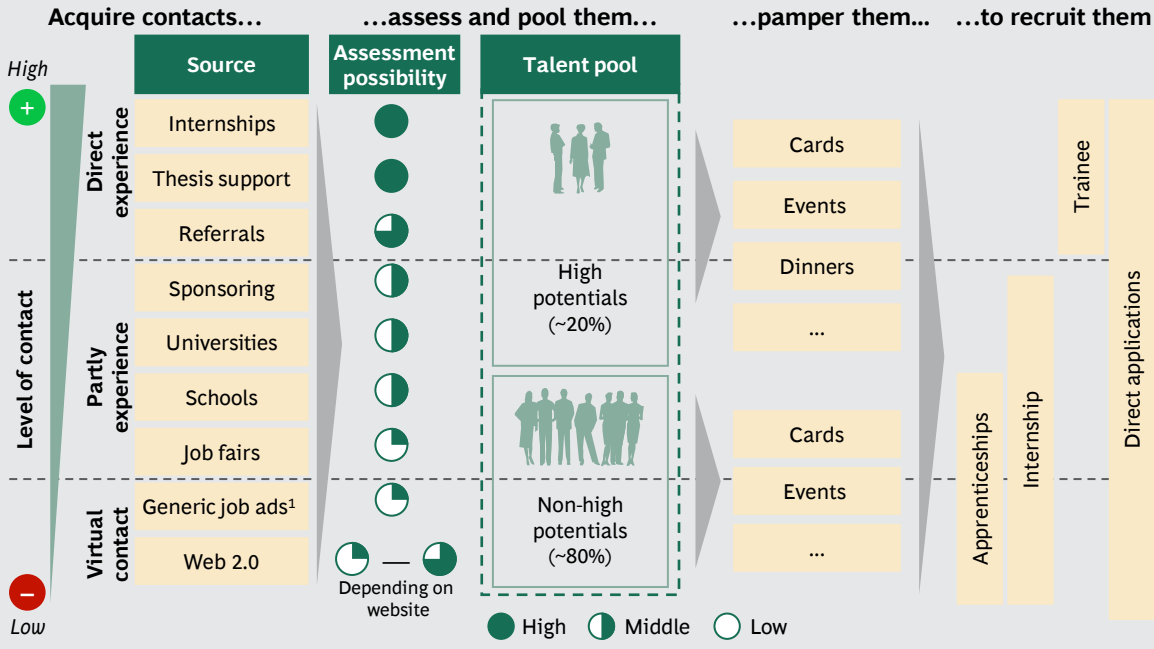
Ultimately, all campus activities undertaken by a company are designed to attract the most suitable candidates, based on its requirements. Hiring an inappropriate candidate can cost the employer dear. On the other hand, the right candidates can perform

EXHIBIT 2.4 | Multiple levers to improve sourcing



Source: BCG–CII Campus Survey on Manufacturing Sector, 2013.

EXHIBIT 2.5 | Employ integrated sourcing strategy



Source: BCG project experience.
[1]Job ads with no specifications regarding activity field.

their duties most efficiently, and contribute in the best possible manner to realize the company's goals. A dedicated campus placement plan (Exhibit 2.5) can help recruiters ensure that the most suitable candidates are selected.

As underscored by Exhibit 2.5, campus placements today have become an exhaustive, year–round activity. The process involves obtaining a list of interested students, understanding their profiles, assessing their fit with the company and the job, pampering the shortlisted ones to increase offer acceptance, evaluating and finally recruiting the most suitable candidates. Talent attraction, therefore, is a full–fledged process that requires dedicated focus end–to–end.

To summarise, attracting top students involves more than just shortlisting candidates, or conducting interviews. It has expanded into a full–blown exercise that requires companies to woo the right candidates and mould them for the expected job long before the interviews begin.

TRIGGER EMPLOYEE SUCCESS

Once the right talent has been hired, an organization must ensure that the employee is empowered to deliver high performance. Regular training and skilling provide employees with the requisite on–the–job expertise to help them perform beyond expectations. Ownership of job functions creates a hunger among employees to enhance their output by tapping more efficient measures. This chapter focuses on the two aspects of employee success–training and skilling, and employee engagement.

Call for Surge: Skilling and Training

Conundrum of the elusive skilled workforce

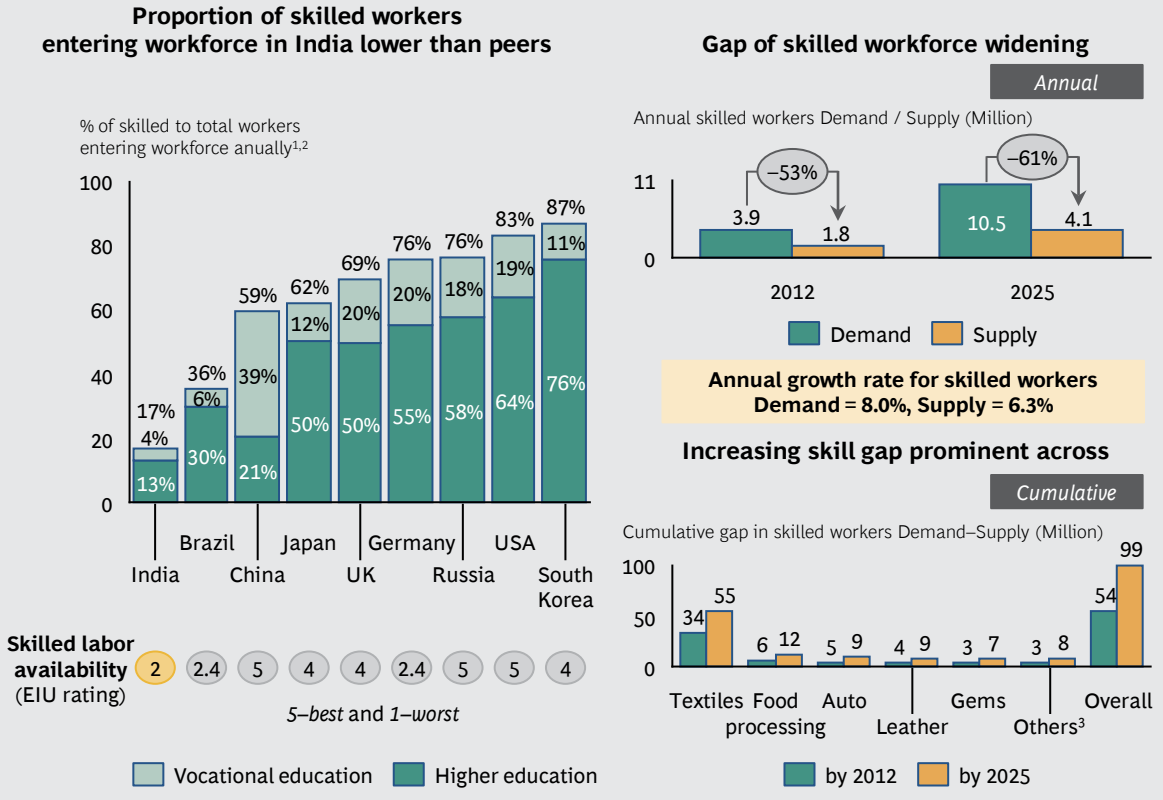
A skilled and trained workforce is the backbone of any economy. Due to years of under–investment in employee skilling and training, India today has one of the least skilled manpower among the top manufacturing nations. Firstly, only 17 percent of those entering the workforce are skilled (Exhibit 3.1). Secondly, the quality of skilling remains a big challenge—amongst the skilled workforce, a mere 5 percent of workers are classified as highly skilled, and a staggering 64 percent are associated with a very low level of skilling[1]. Finally, despite a smaller base, improvement in the proportion of skilled workforce in India has been much slower than peer nations.

Today, the demand for skilled workers in India far outweighs the available supply. In fact, the demand–supply gap is higher than the supply itself. This shortage is expected to rise further, and hit almost 100 million by 2025.

As a result, despite having a seemingly limitless supply of low–cost labor, over 65 percent of Indian firms face difficulty in filling vacancies with rightly skilled workers. This is especially discomforting when compared with corresponding figures of only 15 percent and 20 percent for their counterparts in UK and France, respectively[2]. In the absence of any concrete measures to stem the rot, this widening skill gap is bound to become a major limiting factor in manufacturing sector's target of 25 percent share of GDP by 2022. Hence, it is very important for the government and the industry to collaborate on putting in place a robust plan for skilling and training.

Over 65 percent of Indian firms face difficulty in filling job vacancies with rightly skilled work force

Exhibit 3.1 | Huge gap in skilled workforce—to further widen



Sources: EIU data on educational enrolment; Skill Development in Manufacturing: Strategic Recommendations for the 12th Five Year Plan, HRM report; NSDC sector reports on skill gaps; Skill mapping in Indian labor—labor & development department, 2010; EIU data on skilling & vocational enrolment; Skilling a billion people, CRISIL; FICCI report on skilling landscape, 2010; BCG analysis.
[1]2009 data, All graduates counted as skilled.
[2]Only formally skilled workers are considered for all countries except India.
[3]Includes construction material, building hardware, electronics & IT hardware, pharma, furniture, chemical & petrochemicals.

The Inconvenient Truth

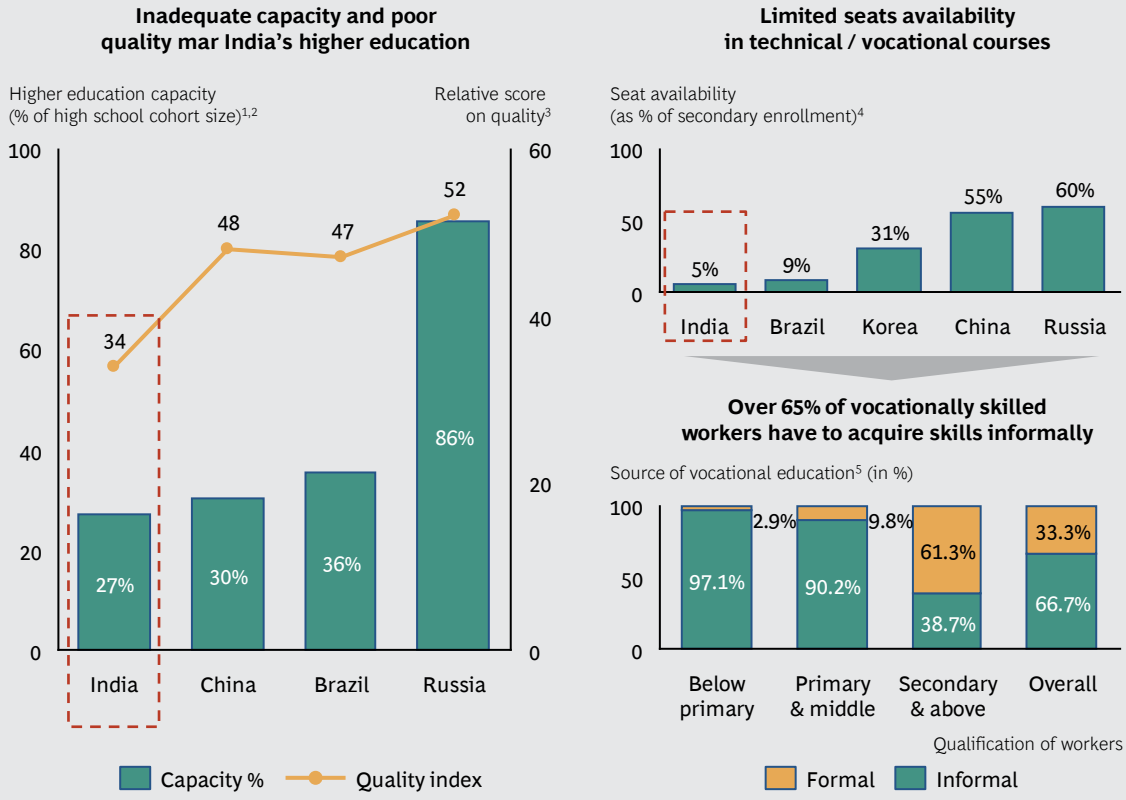
Skilling infrastructure—what we have is not enough

Poor infrastructure, with insufficient capacity

The available public infrastructure for skilling in India is very poor, in terms of both quality and quantity, compared with other key manufacturing countries—including Brazil Russia and China (the other members of the "BRIC" club). Despite the progress made over the last few years, the overall capacity of higher education institutes in India is much lower than peer countries (Exhibit 3.2). Vocational education programs are equipped to accommodate a maximum of only 5 percent of the secondary–school graduates in India. In contrast, other emerging nations, such as Russia and China, have the infrastructure to vocationally train more than half of their secondary–school graduates. Due to this inadequate capacity, only one out of three vocationally trained workers in India has access to formal training, with the rest having to turn to informal training avenues.

The quality of technical and vocational education in India, also, has substantial room for improvement. A significant proportion—32 percent–of the trainers in vocational institutes do not have any formal certifications. A majority of them neither have the requisite teaching skills, nor any relevant industry experience. Moreover, the attrition rate among faculty in vocational institutions is very high, given the poor career growth prospects. As a result, a majority of trainers have less than five years of teaching experience. Another factor contributing to the faculty crisis in vocational institutes is the lack of an established information channel between the insti-

Exhibit 3.2 | Inadequate capacity & poor quality mar India's higher & vocational education



Sources: Education at a glance, OECD report, 2011; EIU data on education enrolment; U21 ranking of national higher education systems, 2012, Melbourne institute of Applied economic & social research; Skill mapping in Indian labor, labor & development department, 2010; The European union & BRIC countries report, Eurostate, 2011; Skill development in India, World bank report, 2006.

[1]Russia, Japan, UK, USA, Germany, South Korea, India, China–2009, Brazil–2008 data for higher education capacity.

[2]High school—Pre–university classes, Higher education—University education.

[3]The quality score is based on performance on nine parameters including research output, appropriateness of education & training for industry and quality of teaching.

[4]2006 data.

[5]2005–06 data.

tutes and trainers. Under the current system, vacancy–related information does not reach the masses due to limited spending and focus on sourcing of trainers. A substandard faculty leads to below–par quality of teaching that reflects in poor employability of fresh graduates (only 10 to 25 percent of fresh engineers and between 15 and 20 percent of vocational graduates are employable at completion of their academic programs)[3].

Vocational v/s higher education: Demand–supply mismatch of skilled labor

Practices adopted by other leading manufacturing countries suggest that in order to manage demand–supply gaps at myriad skill set levels, the ecosystem should be able to produce more people with vocational and modular skills than with higher education (graduation and beyond). A detailed study on human resource requirement in India's textile industry (the country's biggest manufacturing sector in terms of total workforce demand) shows that for a staggering 95 percent of job positions, workers need vocational and modular skills. The study also reveals that skills acquired during graduation are relevant for only a mere 5 percent of vacancies. However, the current Indian set–up churns out more graduates and post–graduates than vocationally trained students, thereby creating a demand–supply mismatch at different levels. While companies are struggling to fill vacancies at vocational positions, millions of graduates are unable to find jobs.

Restrictive ecosystem and missing links

In addition, we are far from achieving optimal utilization of the current infrastructure, given the misaligned objectives of various stakehold-

ers. Isolated efforts by the key stakeholders in the ecosystem are not enough. The industry, government, institutes, and even students will have to work in unison to address the training and skilling challenges in India.

Some of the key challenges are:

- **Lack of industry participation in training process:** Vocational programs are out of sync with the industry's requirements, something that can mainly be attributed to non–involvement by corporates in curriculum design. Also, real–work exposure for vocational students is extremely low, in the absence of internships and live projects. These factors negatively impact the employability of fresh vocationally trained individuals, which in turn, affects the availability of rightly skilled labor for organizations.

- **Inflexible government policies:** Some of the current policies regarding industry involvement in vocational training are draconian and rigid (for example, according to the Apprenticeship Act, 1962, firms have to hire at least 50 percent of the apprentices). These regulations discourage industry participation in educational programs, via internships and live projects. At the same time, the government's high interference hampers the responsiveness of the education system to industry demands. Institutions have limited financial freedom, and lack autonomy. Development and introduction of new programs and curriculum is extremely time–consuming and complex.

- **Lack of student mobilization for vocational programs:** Despite the government's recent efforts toward bringing equivalence in vocational and mainstream higher education, there is currently very limited upward academic mobility in the vocational education system. Also, the industry is largely indifferent toward students with vocational certification, when it comes to hiring fresh talent. These two factors discourage students from pursuing vocational education. Limited awareness about vocational programs in rural areas does not help either. Students are also less inclined to pay requisite fees due to limitations of the post–program job offerings.

- **Little emphasis on general academic skills in vocational programs:** Due to years of seclusion from general higher education programs, the Indian vocational curricula have not focused on building general academic skills. On the contrary, experiences of developed economies suggest that employers want strong academic, as well as vocational, skills[4]. Industry participation is limited in helping institutes understand demand, qualification frameworks and accreditation.

The lack of cooperation is, thus, stifling the system further. It is noteworthy that many of the challenges can be addressed through collaboration between various stakeholders in the ecosystem, with limited additional investments.

In–service Training—Down the Priority Ladder

In light of the limited availability of skilled workforce, poor quality of vocational education, and stiff competition to secure skilled labor, in–service training is becoming increasingly important for the industry. Plus, the slow pace of development of public infrastructure has made it more imperative for the manufacturing industry to focus on in–service training–in order to quickly ramp up employee productivity. This avenue has significant advantages:

- It helps, to an extent, resolve the problem of availability of skilled workers

- It is directly relevant to the job–companies adapt to rapid changes in competitive markets by keeping their workforce up to date with latest technologies

- It is a source of employee motivation

Lack of cooperation among various stakeholders is stifling the system further

However, in–service training in most Indian manufacturing firms today is treated more as a patchwork than a systemic necessity. Consequently, investments by Indian manufacturing companies in workforce training have remained stagnant for the last ten years, with half of them spending next to nothing (less than 0.02 percent of revenue) on training activities. A survey[5] found only 13 percent of firms citing training as a critical priority, clearly highlighting the fact that workforce training is not an important priority for a majority of Indian enterprises. The same callous attitude is further underlined by the fact that a mere 18 percent have structured formal training programs in place for their workforce. This is in stark contrast to Brazil, China and East Asian countries where the bulk of manufacturing companies have devised official training modules. In fact, industrial companies in many East Asian nations focus on skilling and development of workforce that leads to higher labor productivity growth[6].

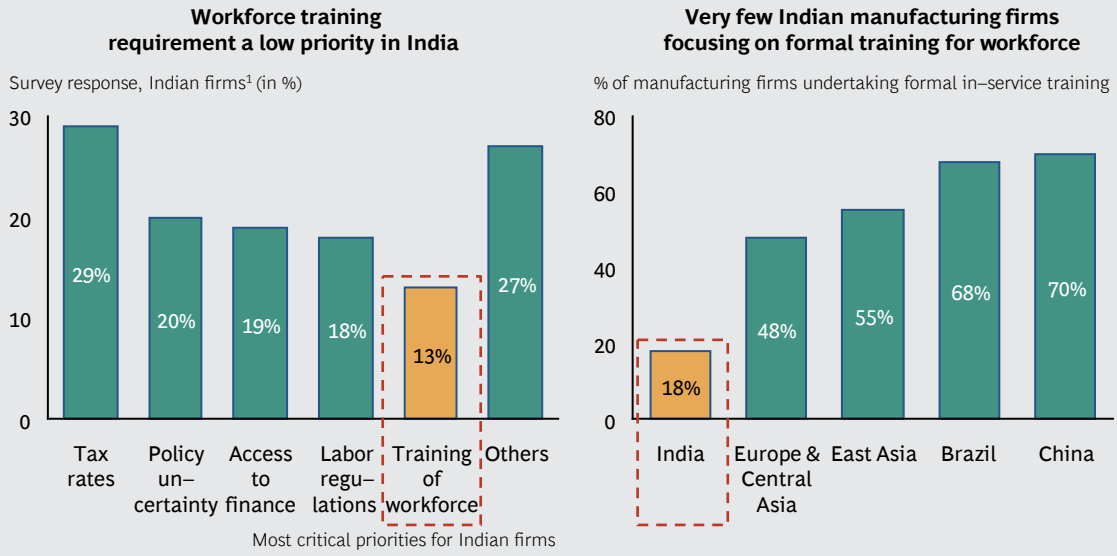
Similarly, if one were to benchmark Indian manufacturing businesses against domestic firms in the service sector with regard to in–service training, the results are pretty shocking. According to research, training spends by manufacturing firms are a whopping 67 percent lower than those by their service–sector counterparts.

In addition, even within the manufacturing sector, wide variations exist in training spends across firms.

At the epicenter of the vicious circle lies the apathetic attitude toward in–service training, which has ensured that training and skilling of labor is not considered as a core priority in manufacturing companies (Exhibit 3.3). In most organizations, overstretched managers deem training more of a nuisance, while for the workforce, it is nothing but a day off from work.

Typically, managers and workers try to obviate training sessions on the pretext of heavy workload, based on an inherent conviction regarding the relative benefits of not attending such programs. Managers would send only the poor performers to cover for the minimal attendance requirements in these sessions. The middle management is too occupied in pursuing short–term deliverables, achieving quarterly / yearly targets, to think about the long–term benefits of taking part in training. Business heads do not bother to participate

EXHIBIT 3.3 | Limited mindshare of 'workforce training need' results in poor associated investment



Sources: Prowess; Skill development in India, World bank report, 2006.
[1]Basis % of firms who cited priority as "very critical" & "critical", as presented in the research paper by "Tav & Savchenko".

in, let alone conduct sessions, or spearhead the training of their workforce.

At the epicenter of the vicious circle sits 'attitude' toward training. Years of mistreatment have alienated in–service training from the business mainstream

Not surprisingly, training / capability building is not considered the responsibility of the main business units in most organizations—with ownership of these activities assigned to the HR department. Even in case of some of the more evolved organizations, managers would distance themselves from training, considering it as an auxiliary activity. And, this attitude is clearly reflected in how the senior management looks at training, from the point of view of organizational goals. Very few companies typically appreciate expertise development, while there is no expert track at all in most organizations.

The message coming through most organizations, therefore, is loud and clear–training is a supplementary activity that does not need much encouragement. Consequently, investing in training programs is a mere formality for a majority of Indian manufacturing firms. Training modules are not updated as regards the content and underlying technology, leading to further indifference among employees and creating a vicious circle.

Clearly, by striking at the core of this problem, i.e., the callous attitude toward training, organizations can achieve much more with the same training infrastructure and investments and reap compounded returns.

Case Study: How China Took the Bull by the Horns

It is no wonder that China, with its limitless supply of low–cost labor is the manufacturing hub of the world. At the same time, it has taken effective steps to deal with the demand–side challenges associated with training and skilling of its industrial workforce.

Over the years, the Chinese government has invested extensively in vocational education. As a result, nearly 50 percent of the secondary level students in China have access to vocational education today—way higher than a dismal figure of 5 percent for India. The infrastructure in China for vocational education can absorb 20 million students, while the total number of available seats in equivalent Indian programs stands at a mere 2 million (approximately).

Also, the quality of training in Chinese vocational institutions is much better (compared with India), mainly due to extensive industry participation, favorable government policies and a flexible curriculum. The key stakeholders in the ecosystem there work hand–in–hand.

While Indian vocational programs offer students little industrial exposure, Chinese courses mandate students to undergo one–year training to be able to get the diploma—ensuring that students are better equipped to be absorbed immediately into the job market.

Similarly, to make sure that the faculty always keeps abreast of the latest industry practices, the Chinese government has made it compulsory for vocational trainers to spend at least a month every year in manufacturing companies. In contrast, most of the trainers in India have zero industry experience. Additionally, China has made it very easy for vocational students to move back into general academic programs by sufficiently covering general academic skills in vocational curricula.

Chinese firms take employee training, one of the top levers to attract best talent in a competitive market, very seriously. This is reflected in the fact that Chinese manufacturers spend twice the amount on training and development in comparison to their Indian counterparts. This clearly underlines the positive attitude of Chinese firms as far as training is concerned.

Recent research shows that a firm's capacity to innovate and use new technologies effectively depends heavily on the skill levels of its workforce. Indian companies lack in structured training programs, probably due to low investment and limited focus. In fact, not more than 17 percent of manufacturing businesses in India provide in–service training to employees—compared with almost 70 percent in case of China.

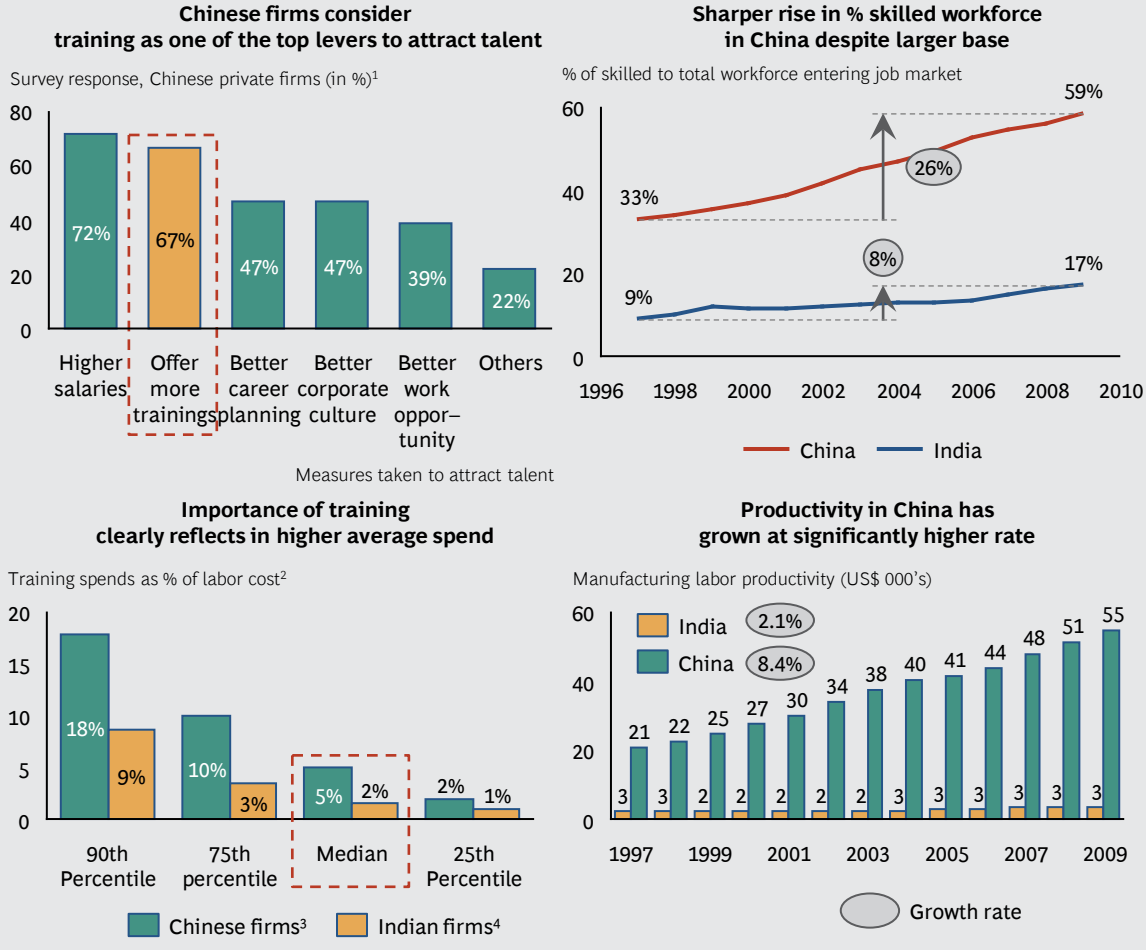
Sustained and collaborative efforts by the government and industry on workforce training and skilling have generated rich dividends for the Chinese economy. As shown in Exhibit 3.4, the productivity of manufacturing labor in China has grown by over 300 percent in the last 15 years. In contrast, the productivity of the Indian industrial manpower has risen by a mere 32 percent over the same period.

'Bringing about the tectonic shift' with right attitude and collaboration

Crafting an end–to–end solution is required, in order to bring about the changes (Exhibit 3.5).

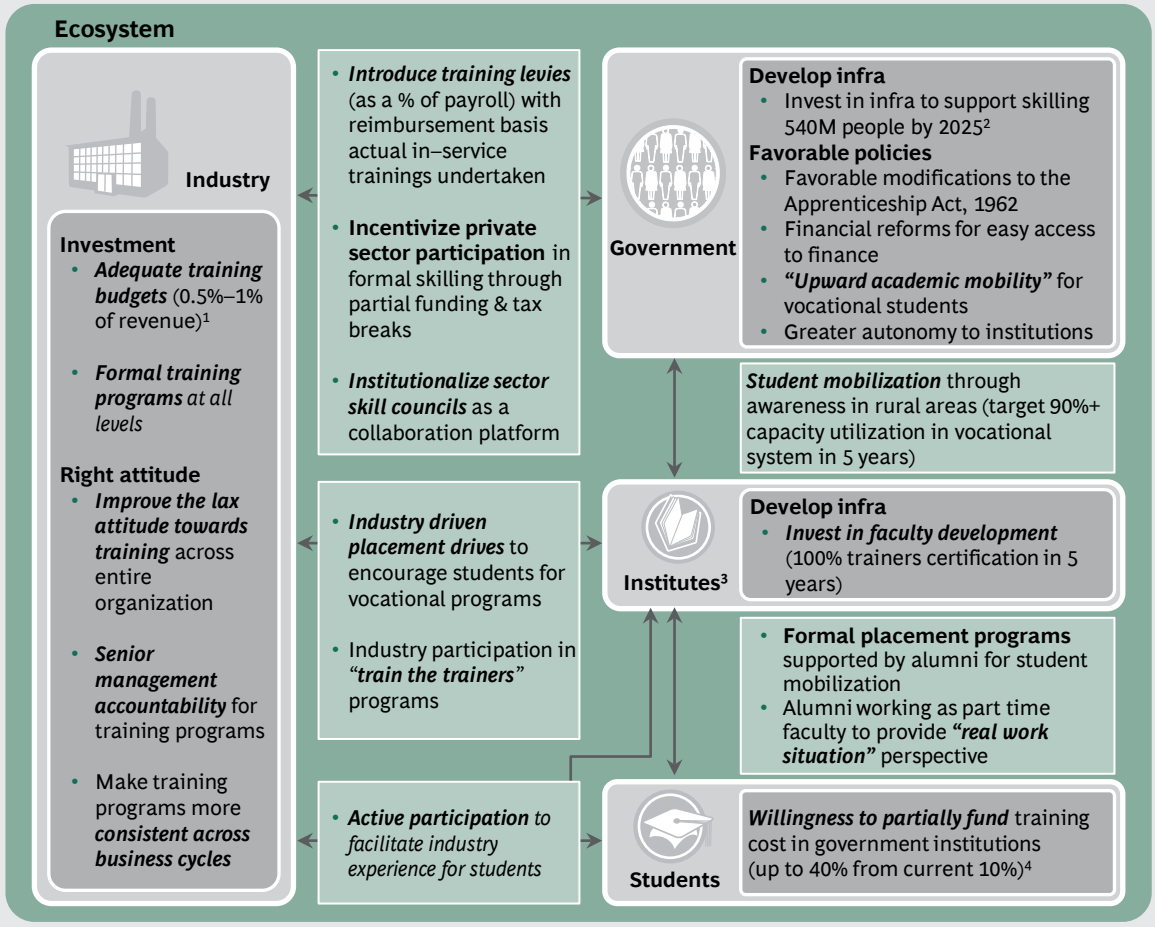
It is imperative for the government to allocate, in a rapid and optimal manner, funds for revamping the infrastructure for vocational and technical education. However, as pointed out earlier, optimal investment has to be just the starting point of this journey. Favor-

Exhibit 3.4 | China has fared well by focusing on skilling and training of its workforce



Sources: Prowess; Super Human Resources in China: Practices, Performances, and Opportunities Among China's Manufacturers, Manufacturing Performance Institute, 2005; Manpower China Research, 2010; EIU data on education statistics; Oxford intelligence data; CRISIL; BCG analysis.
[1]Survey taken from the report – Super Human Resources in China: Practices, Performances, and Opportunities Among China's Manufacturers, Manufacturing Performance Institute.
[2]2006 data for both Indian & Chinese firms.
[3]All Chinese manufacturing firms having plants in China.
[4]Indian manufacturing firms which disclosed training expenses.

Exhibit 3.5 | All stakeholders in the ecosystem must work together



Sources: NSDC report on vocational education, 2012; Vocational education in China, OECD report, 2010; BCG analysis.
[1]Bring the training investments in line with Chinese & North American firms.
[2]Based on NSDC estimates.
[3]ITIs, ITCs & polytechnics.
[4]Bringing the self financing at a level similar to China.

able policy–related changes by the government, close collaboration among all stakeholders in the formal skilling process, and an enhanced industry–wide focus on in–service training are equally important. A lot can be achieved, even within the constraints of the current infrastructure.

Favorable Industry–institute collaboration, in skilling

One of the pivotal factors in improving workforce skilling is greater participation of the industry in the formal training process. Manufacturing companies should provide inputs during curriculum design, run "Train the trainer" programs, and offer students live projects. The industry should also help educational institutions better understand in–demand skills, and work on development of qualification frameworks and facilitation of accreditation.

Higher industry interest in vocational courses, in terms of hiring of graduates of vocational courses and providing internships / live projects, would encourage students to participate in these programs. Students would then be willing to pay for the courses, and thereby help make the institutes self–sufficient. Also, private players would be willing to invest in setting up of vocational training centers. The virtuous cycle would eventually create a win–win situation, leading to a much healthier pace of growth in the manufacturing sector.

Another welcome step could be to institutionalize "Sector skills councils", a forum where various industry players come together, and interact with and facilitate the work of the training institutes. For the desired changes to take effect, it is imperative that the stakeholders are willing to experiment and collaborate.

Positive attitude toward in–service training

The current apathetic "Attitude" is largely to blame for poor investments, underutilization of infrastructure, limited mindshare, and the subsequent unfortunate condition of in–service training in manufacturing firms. Attitude drives behavior, which over a period of time, becomes the norm. And norms, once accepted as a way of life, get ingrained in the DNA of the organization, translating into culture. It becomes extremely difficult to address cultural issues. Hence, it is extremely important to strike at the core—"Attitude" toward training.

A lot can be achieved without further raising the intra–company investments in training. Senior management must project clear and sincere commitment toward training, giving it equal importance as core business activities. To improve traction, manufacturing enterprises must appoint a senior business manager / head to spearhead training activities along with HR. An increased mindshare is bound to have a trickle–down effect on the middle management. Business line managers must be involved in training sessions, and those participating in these programs should be recognized publicly.

An annual schedule of training programs must be prepared in advance, in consultation with business heads—keeping in mind the business pressures, and availability of people. Once agreed upon, the training programs must be made compulsory for the employees. A clear log of attendees and end–of–training performance tests must be maintained; the same must be compiled on a quarterly basis, and shared with the business heads.

Judicious investments in technology could significantly improve traction. The training department should have an Intranet site, which can be accessed from the company's home intranet page and employee intranet pages. The training portal should cover training schedules, online and self–help programs, logs and results of employee tests (pertaining to previously conducted sessions), and recommended modules segregated by line of work, tenure and designation.

Indian manufacturing firms should set aside training budgets amounting to as much as 0.5 to 1 percent of their revenues (in line with the spends of their Chinese and USA counterparts).

Environment to facilitate self–sustained growth of the skilling ecosystem

The government should grant academic institutions higher strategic and functional autonomy with regard to areas such as curriculum revision, adoption of testing procedures, and discretion in deploying internally generated funds. Institutes should also be allowed to introduce short–term certifications on modular skills, as per the requirement of local industry. The government needs to relax some of the clauses in current laws that disincentivize the industry from engaging with students for short–term training programs (the Apprenticeship Act, 1962, as a case in point). Similarly, to encourage in–service training, policymakers could introduce training levies (as a percentage of payroll), coupled with reimbursement on the basis of actual in–service trainings undertaken by the organizations.

Additionally, the government can facilitate upward academic mobility in vocational education programs, in order to attract a better student pool. Basic courses should also be introduced early in general school programs to create awareness and interest in vocational programs.

With optimal investments, a shift in "Attitude" toward in–service trainings, and stakeholder collaboration, manufacturing in India could be big enough to accommodate more than 10 million[7] skilled workers each year. On the other hand, if we fail to bring the desirable changes in the ecosystem, the National Manufacturing Policy's goal of the sector accounting for 25 percent of GDP by 2022 would simply remain at that—an elusive dream.

Motivate Employees to Drive Change: Engaging Workforce

Employee engagement for compounded returns

Attracting the right people and training them are necessary steps, but not sufficient, to increase productivity. Research shows that employee engagement goes a long way in increasing their morale, and thus boosting productivity.

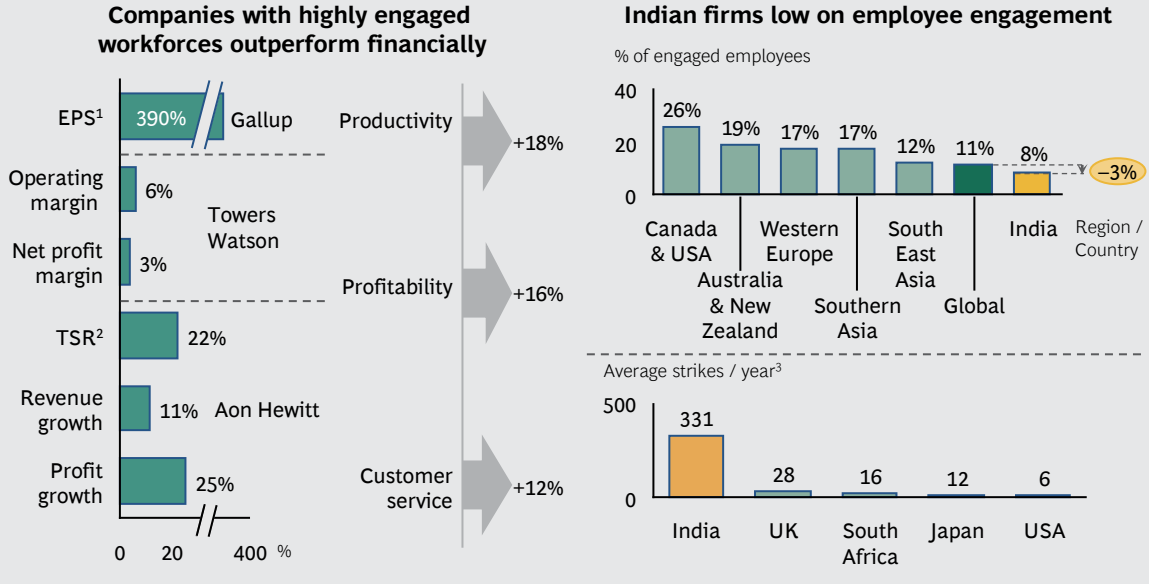
Employee engagement is often confused with employee satisfaction; there is a marked difference between the two. Satisfaction is determined by the discrepancy between what one expects from a job and what one gets. On the other hand, "engaged employees" care about the future of the company, and develop a strong emotional bond with their organization. They drive innovation, and move the enterprise forward. Increasing productivity in that case is not merely an initiative undertaken by the top management, but the responsibility of each individual worker. In the manufacturing industry, employee engagement is even more important since every worker's output counts, and results, on a collective basis, in higher profits for the company.

As shown in Exhibit 3.6, employee engagement (defined in terms of a set of parameters such as recognition, communication, performance management, etc.) is a major source of competitive advantage. Compared with firms that don't engage their staff, companies with highly engaged workforces have posted almost 25 percent higher profit growth and an Earnings–Per–Share (EPS) growth of almost four times. These engaged organizations have also shown a 22 percent higher–than–average total shareholder return and 18 percent (approximately) higher productivity. Therefore, engaged employees contribute to the success of a company in a tangible manner, and are real assets to an organization.

Yesterday's solutions become today's challenges

Employee engagement in Indian companies is very low, compared with overseas enterprises. As shown in Exhibit 3.6, only 8 percent of employees in India feel engaged, significantly lower than the corresponding figures

Exhibit 3.6 | Employee engagement key source of competitive advantage; India lags behind



Sources: Gallup Report 2010—"Employee Engagement—What's your engagement ratio?", "The State of the Global Workplace", Towers Watson Report 2009—"The Power of Recognition From Managers: Part 1"; Aon Hewitt Report 2011—"Trends in Global Employee Engagement", "Hewitt Best Employers 2009"; Survey by Gallup Consulting; World Bank Report "India's Employment Challenge" 2010; Labor Bureau Government of India; International Labor Organization.

[1]Earnings per Share.

[2]Total Shareholder Return.

[3]Average from 2000 to 2009.

of 26 percent and 11 percent for their USA and global counterparts, respectively.

There have been multiple strikes in India in the recent past, for various reasons, ranging from low salaries and bad working conditions to harsh behavior of supervisors toward workers. However, the core reason continues to be the lack of trust between employees and the managements of manufacturing organizations, which has ensured that seemingly good solutions do not address long–term, labor–related challenges.

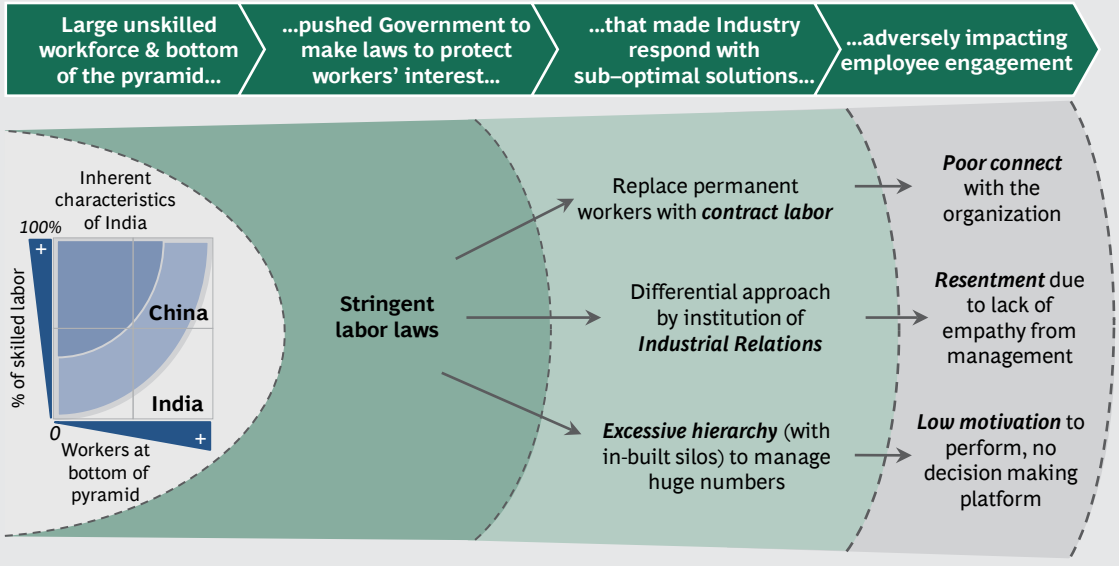
Given India's manufacturing sector's low productivity levels, a relatively larger proportion of workers in the manufacturing industry remain at the bottom of the pyramid. Due to the organizational hierarchy and poor skill levels of these workers, they continue to be highly vulnerable to exploitation.

Solutions offered by the government and industry's response only further alienate the employees. To protect the interests of this massive working population, the government came up with stringent labor laws governing manufacturing companies, namely prior approval from authorities to "retrench" surplus staff, minimum wage, etc. To tackle labor–related issues, the industry then came up with three major solutions (Exhibit 3.7)—hiring of excess contract labor, introduction of Industrial Relations (IR) to handle disputes, and creation of silo–based hierarchy—this in turn, led to greater complexities in labor management.

Replace permanent workers with contract labor: Contract labor accounts for nearly 90 percent of the workforce in India's organized manufacturing sector. The country's labor laws have incentivized the industry to hire such manpower, who are paid a small fraction of the salaries awarded to permanent workers, and can also be fired easily. Thanks to this differential treatment, it becomes even more difficult for organizations to engage contract workers. These workers feel alienated, and in turn, are less productive.

Differential approach by institution of Industrial Relations (IR): Worker unions go on strikes time and again, demanding either an increase in wages, or better working conditions. The outcome is fostering a "culture of distinction" in firms against the workers. To tackle labor issues, the manufacturing sector tends to adopt an approach based on Industrial Relations (IR)—with an objective of obviating conflict, rather than understanding the aspirations of workers. There is no mechanism in IR similar to HR function (for the white–collared officers) for

Exhibit 3.7 | Challenges unique to India accentuate employee dis–engagement



Source: BCG experience

a fair performance management or incentive scheme. This leads to a feeling of resentment–and active disengagement, in a few cases–among the workers toward the organization.

Excessive hierarchy to manage large numbers: In order to effectively manage a large number of unskilled workers, organizations have created a highly hierarchical HR structure. This solution, although seemingly effective, has driven a wedge between management and workers, and has led to the formation of two separate siloed worlds within the enterprise. Employees at the bottom of the ladder have minimal access to information, with decisions typically taken at the very top—without any inputs from the former. Put simply, workers have no platform to contribute, in terms of coming up with ideas for enhancing organizational productivity, and feel completely isolated due to lack of any motivation to perform.

Scaling the stiff cliff

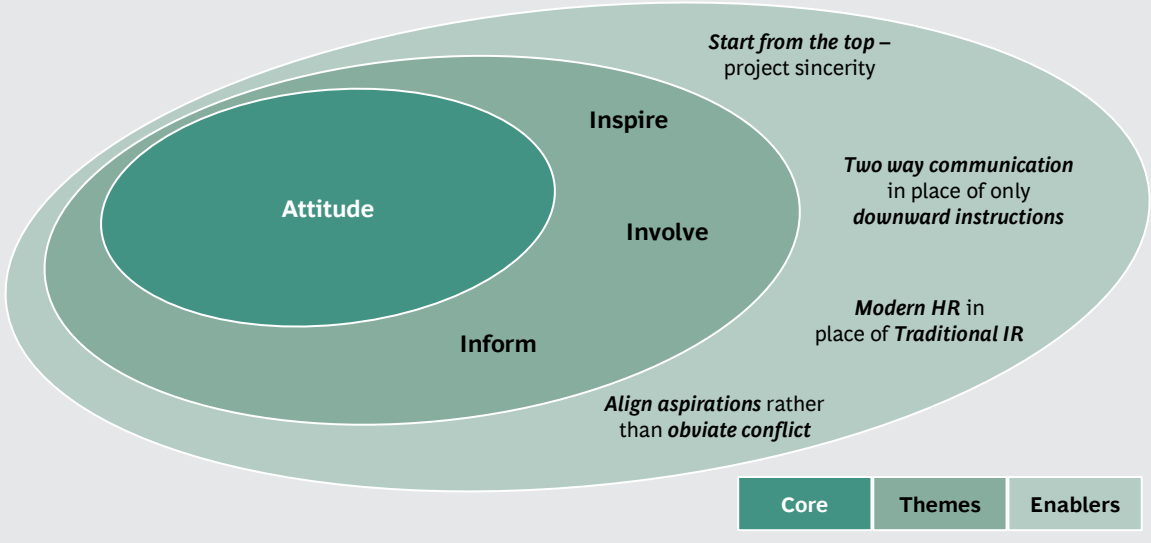
Companies, in the guise of employee engagement, have taken small steps toward appeasing employees–though, with little success. For example, many organizations have started keeping a "suggestion box" in the factory for workers to contribute, but have failed to implement any of the suggestions. Executing a new initiative, and not merely rolling it out, is important. Any programme to be successful not only requires the introduction of new processes, but also a change in attitude–at the very least, the importance of the initiative needs to be recognized by top executives. The CEO, middle management and supervisors have to embrace the lowest–ranked employees in the organization as part of the ecosystem; only then will the new initiatives succeed.

There are three levers to enhance employee engagement that cover the entire gamut of all initiatives (Exhibit 3.8).

Inform: A basic system should be in place to communicate organization's growth targets and cultural vision, and inculcate the firm's value system among workers. For example, creating information channels, such as newsletters, and facilitating an adequate number of forums for workers to share information, encourage employees to collectively work toward a common goal.

Involve: To make every employee feel important, his roles and responsibilities should be spelt out clearly. This breeds a culture of ownership and responsibility among workers. Also, there should be continuous communication between an employee and his

Exhibit 3.8 | Target poor "Attitude" to effectively implement enablers



manager, who should provide guidance and simultaneously pursue an open dialogue for exchange of innovative ideas. Employees should be made part of the decision making process to strengthen their connection with the organization.

Inspire: A full–fledged recognition program, which links awards and incentives to performance, needs to be introduced. And, a structured monthly /quarterly public forum should be institutionalized to recognize workers. An effective recognition system that appreciates the efforts of talented workers in a timely manner motivates staff to over–deliver.

- **Start at the top–project sincerity:** Behavioral change towards the workers has to begin with the top management. Senior executives should communicate with those at the bottom of the hierarchy, regularly meet employees at every level, and encourage an open–door policy for addressing any grievances of workers. The forums for recognizing the best performers should also be led by the top management, in order to highlight the importance the organization attaches to the process.

- **"Two way communication" instead of only top–down instructions:** There should be a two–way communication between employees and their supervisors. This should include mentorship on the part of supervisors, along with a freedom for the workers to voice ideas and grievances. Supervisors need to be trained to interact with employees.

- **Modern HR in place of traditional IR:** Industrial Relations (IR) KPI should be changed from "no disputes" to "higher employee engagement". The current performance metric to judge the competence of IR is whether there have been any disputes, and how soon they have been resolved. Unlike IR, which deals with issues between organizations and employees, HR adopts an approach that is more personal and driven by motivation. Companies should set up a performance management system, and also develop career tracks for their staff so that workers strive for better performance to improve their growth opportunities within the organization.

- **Align aspirations rather than obviate conflict:** Most companies try to appease workers with the sole purpose of averting conflicts. While such an approach may nullify the possibility of any strikes, it may also lead to a situation where employees will deliver the bare minimum results expected of them. Instead, manufacturing companies should include workers in the decision making and goal setting processes.

In manufacturing firms, where the workers form the biggest chunk of the employee base, and are directly contributing to revenues, employee engagement becomes extremely critical in order to increase employee productivity.

Case Study: ACC Cement's Jamul plant transformation

The Jamul plant, located in the Chattisgarh state of India, is a very old plant of ACC that had been substantially underperforming. A growing fear among employees that the plant will soon close down was fuelling employee dissatisfaction, which further reduced the plant's performance. It was a vicious cycle that was feeding on itself, and in turn, further driving down the plant's performance.

Within a short period of time, the Jamul plant was transformed into one of the most successful plants not only within ACC, but across the whole Holcim group.

- Jamul became the top ACC plant based on internal company performance tracking
- Plant production increased by 30 percent
- Plant cost per ton in real terms dropped 10 percent
- People motivation increased significantly

It is worth pointing out that the changes happened without any additional capital expenditure, and only through the drive and passion of the plant's workforce.

Turning the tide

ACC's senior management decided to drive a "people centric" transformation program at Jamul. A well–defined strategy for achieving operational excellence, coupled with measures to drive high employee engagement, led to the plant's transformation from being a dismally run factory to a star performer.

Inform—Provide all employees with adequate information about the program and the proposed changes that it will bring in the working environment.

Any anxiety or doubts in employees' minds about the program would be addressed if they have all the information they need. To ensure effective communication of requisite information, the plant's management put up banners and posters at key areas frequented by employees, published data in employee newsletters, and prepared program themed songs and anthems. The management also organized one–on–one sessions with employees to help them understand the program in the right context, comprehend the module's deliverables, and note any changes in their working environment they would experience following the implementation of the program.

Involve—Bring together all employees and make them joint owners in the program.

Ownership makes employees accountable for the success of the initiatives. To ensure workers' involvement and ownership of the program, the top management became equally involved in the program. Employees at all levels were given clear mandates and responsibilities. Their KPIs were modified so as to make the program deliverables part of their daily work culture.

Inspire—Motivate employees to proactively align themselves with the program's guidelines, by providing the right incentives in line with employees' aspirations.

Outstanding achievements by individual employees, teams, coaches and others were recognized through specially organized awards nights. To facilitate top performance, the management also developed a robust training system designed to provide relevant on–the–job skills.

Success factors behind the program:

As the plant workforce got engaged, a positive competitive environment emerged. All employees were focused on their respective modules. Lunch–time conversations included discussions on raising self targets, exchange of ideas over new performance–enhancing techniques, and so on.

The key factors that ensured success of the program are outlined herewith:

1. **Senior management ownership:** The top management drove this project, in a manner similar to other critical business decisions. Definitive measures were taken to drive success at all levels. Members of the senior management were identified as project champions. Time–bound performance targets were set, and KPIs expanded so as to push the project up on their list of priorities. A conscious effort was being made by top–level managers to own the project, and to steer it to success.

2. **Right enablers:** The top management fostered the right enabling environment to ensure success at all levels. Management developed an understanding of employees' aspirations, and what motivated them to exceed expectations. The rewards–and–recognition system was established accordingly to make employees passionate about the project. Working conditions were improved through provision of better drinking water facilities and improved lighting in the plant area. Furthermore, an ongoing clean–up drive and waste management system enhanced the workplace environment.

3. **Sharp accountability:** As part of the project plan, employees at every level were assigned clearly defined roles and responsibilities. Regular performance reviews were held to follow up on predefined targets, and to hold employees accountable. The idea was to bring the project within the ambit of employee "deliverables", and to make each and

every worker accountable for the success of the project.

4. **Structured review cadence:** Structured review meetings were organized at regular intervals to assess performance gaps, and to put in extra measures, as required, in order to reach the desired goal. In addition, dedicated audit teams were formed to examine aspects relating to safety and housekeeping, in order to ensure compliance with benchmark practices. Periodic reviews helped employees prioritise project targets.

CONCLUSION The project was a phenomenal success. Driving people and motivating them to take higher ownership of their work functions produced substantial benefits at all levels. A clear project ownership and guidance from the top management ensured that the project was headed in the right direction at all times. In addition, knowing employees' aspirations and structuring the enablers accordingly helped stimulate employee enthusiasm, and thereby, maximize plant productivity.

NOTES:

1. Skill mapping in Indian labor market, Labor and development department
2. Source: Talent shortage survey, Manpower Group Research, 2011
3. Employability of engineers in India, Aspiring mind research
4. The German dual apprenticeship system—analysis of its evolution and present challenges
5. Tav & Savchenko in 2005; Quoted in World Bank report 'Skill development in India, The vocational education and training system' 2006
6. EIU data on labor productivity
7. Report by National Skill Development Corporation, titled "Human Resource and Skill Requirements in the Education and Skill Development Services Sector"

CONCLUDING THOUGHTS

The global manufacturing landscape is drastically changing, with emerging economies fast becoming the preferred destinations for companies the world over. And with China's manufacturing competitiveness losing sheen fast, challengers are aggressively vying for a bigger piece of the US$ 8.8 trillion[1] global manufacturing pie.

India, with its large working population and low labor costs (or substantial labor–cost competitiveness), is at a distinct advantage, and can grab a lion's share. However, poor people productivity holds India back. If the right levers are put in place, India can efficiently utilize its "demographic dividend" and create a long–lasting leadership role for itself in the global manufacturing sector. In order to achieve this goal, corporations and regulators would need to come together and create a feasible environment for growth. The industry will also have to change its mindset, and transform its "Attitude" with respect to in–service trainings and employee engagement. If we fail to act now, we could lose out to neighbouring competitors, and the price to pay for this loss could be huge–to the tune of over US$ 250 billion[2].

The stage is set, and the stars are aligned for the Indian manufacturing sector. Are we ready to seize the opportunity?

NOTES
1. Data for 2012 from Oxford Economic database
2. 2022 forecast, calculated as US$ 650 billion (manufacturing potential @ 25% share of GDP) less US$ 400 billion (assuming 15% manufacturing share in GDP)

FOR FURTHER READING

The Boston Consulting Group publishes other reports and articles on related topics that may be of interest to senior executives. Recent examples include.

Re–igniting India's Quest for Manufacturing Leadership
A report by The Boston Consulting Group in association with The Confederation of Indian Industry (CII), December 2012

Competing with China: Lessons from South Korea's Manufacturers
An article by The Boston Consulting Group, October 2012

What Sets Quality Leaders in Manufacturing Apart—The Human Factor
A focus by The Boston Consulting Group, October 2012

Creating People Advantage 2012—Mastering HR Challenges in a Two–Speed World
A report by The Boston Consulting Group in association with World Federation of People Management Associations (WFPMA), October 2012

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