Confederation of Indian Industry

MM
MANUFACTURING MATTERS

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Highlights

COVER STORY
Global Skill Capital ...Pg3
The competitive world demands trained, certified, and skilled manpower to address the challenges of growth and convert them into opportunities.

Industry Best Practices ...Pg16
Although the manufacturing sector in India has grown to employ 50-60 million people in 2008, there is room for further growth since the sectoral contribution to GDP is just 15% and the percentage of workforce engaged in manufacturing is only 12%.

MANUFACTURING SKILLS

Inside This Issue

CHAIRMAN'S MESSAGE	Page 2
COVER STORY	Page 3
POLICY	Page 6
INTERNATIONAL	Page 8
TRAINING	Page 10
PRODUCTIVITY	Page 12
AUTOMOBILE	Page 14
BEST PRACTICES	Page 16
TEXTILES & CLOTHING	Page 18
EVENTS	Page 20
INDUSTRY DATA	Page 22

From The Chairman's Desk

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Chairman
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Manufacturing skills development is integral to manufacturing growth. Over the last decade and more, both Government and industry have introduced a gamut of skills development programmes that are oriented to the emerging needs of the manufacturing industry. These initiatives have assumed key significance as the sector enters a phase of modernization in its efforts to move up the global value chain. Building a strong skills base is also necessitated by Government's abiding goal of increasing the manufacturing share of GDP to 25% by 2022, as expressed in the National Manufacturing Policy (NMP).

Today, as the domestic manufacturing growth slows down in the face of tight global market conditions, there is a clarion call for strengthening the manufacturing skills base to enable domestic industries to tap new growth opportunities and prepare for the next growth wave.

Attracting good talent has been a challenge of sorts for the manufacturing industry worldwide as most young people prefer to pursue a career in the services sector. However, the young workforce in India appears to be warming up to career opportunities in the manufacturing sector. According to a recent survey-based report titled 'Engaging the Modern Manufacturing Workforce', commissioned by global workforce management solutions firm Kronos Inc. and conducted by IDC, over 90% of next-generation respondents in the country see a career in manufacturing as a practical option. This indeed bodes well for the sector. Now the challenge lies in imparting requisite skills to these young people, so that they are capable of leading the country's manufacturing sector in the future.

As such, skills development for manufacturing is a global imperative. A recent study conducted by the World Economic Forum and Deloitte Touche Tohmatsu points out that an estimated 10 million manufacturing jobs worldwide cannot be filled due to shortage of talent. Hence, manufacturing skills initiatives in India will not act as a key support for Indian industries but will also serve the manpower needs of manufacturing companies across geographies.

Government has already set sights on creating 100 million jobs by 2022. Now, these jobs need to be manned by people who are fully trained. In the concerted efforts to realize this goal, we are likely to see an exponential increase in skills development programmes across public and private domains. The National Skills Development Corporation (NSDC) is tasked with skilling some 150 million people by 2022, which is nearly a third of the Prime Minister's goal of skilling 500 million people. Industry has a key role cut out in meeting these numbers.

I am happy to state that Confederation of Indian Industry (CII) has played a major part in several marquee skills development initiatives in the country. CII has launched its own Skills Development Initiative that is aligned with the National Skills Development Agenda, apart from revitalizing vocational training centers like Industrial Training Institutes. CII also partners with various global organizations for training industrial workers in developing countries.

Besides, CII organizes WorkSkills Competition every year at the regional level and national level for identifying candidates for WorldSkills International Competition (Olympics of Skills). In 2011, seven CII members participated in the international event that was held in London. CII expects more participation in the 2013 competition to be held at Leipzig in Germany.

Keeping in view the growing demand for manufacturing skills, in this edition of Manufacturing Matters we have focused attention on job creation in the manufacturing sector, development of India as a manufacturing skills capital, technology-orientation of manufacturing workforce, and international collaborations for skills initiatives. We have also turned the spotlight on skills development in two important manufacturing sectors- electronics & IT hardware, and textiles and apparels.

I hope that you will derive great value from the set of articles presented in this edition. Manufacturing Matters has immensely benefited from the feedback and suggestions made by our esteemed readers. I look forward to your continued participation in the development of this journal. MM

Global Skill Capital

The competitive world demands trained, certified, and skilled manpower to address the challenges of growth and convert them into opportunities.

Skill building can be viewed as an instrument to improve the effectiveness and contribution of labor to the overall production. It is an important ingredient to push the production possibility frontier outward and to take growth rate of the economy to a higher trajectory. Skill building is also seen as an instrument to empower the individual and improve his/her social acceptance or value.

The contemporary focus on skill building or skill development in India is derived from the changing demographic profiles in India vis-a-vis China, Western Europe, and North America. These changing demographic profiles indicate that India has a unique 20 to 25 years' window of opportunity called "demographic dividend".

The "demographic dividend" accounts for India having the world's youngest work force with a median age way below that of China and the OECD Countries. Alongside this window of opportunity for India, the global economy is expected to witness a skilled manpower shortage to the extent of around 56 million by 2020. Thus, the "demographic dividend" in India needs to be utilized not only to expand the production possibility frontier but also to meet the skilled manpower requirements in India and abroad.

To reap the benefits of the "demographic dividend", the Eleventh Five Year Plan had favored the creation of a comprehensive National Skill Development Mission. As a result, a "Coordinated Action on Skill Development" with three-tier institutional structure consisting of (i) Prime Minister's National Council (ii) National Skill Development Coordination Board (NSDCB), (iii) National Skill Development Corporation (NSDC) was created in early 2008. Whereas, Prime Minister's National Council on Skill Development has spelt out policy advice, and direction in the form of "Core Principles" and has given a Vision to create 500 million skilled people by 2022 through skill systems (which must have high degree of inclusivity), NSDCB has taken upon itself the task of coordinating the skill development efforts of a large number of Central Ministries/Departments and States. The NSDC has geared itself for preparing comprehensive action plans and activities, which would promote PPP models of financing skill development.

The three-tier structure has laid the institutional foundations for a more proactive role of public (Centre plus States) and private and third sector interactions and interfaces for harnessing the benefits of demographic dividend. It has also been able to focus on skill development through creation of a coordinating mechanism. It has also made the issue of skill development an important agenda for the Governments at Centre as well as States. It has articulated the importance of the role of State Governments in the delivery of skill development.

Twelfth Plan Proposal

Government's preoccupation with providing and financing training has led to overlooking its role in one key area- disseminating information about the availability and effectiveness of training programs. An important role that the Employment Exchanges could play is in dissemination of information on the nature and quality of training, particularly with respect to enrollment, institutional capacity, completion information and graduate follow-up data from all registered vocational institutions. This will enable the government and the stakeholders to see whether the system is responding to employers' needs and devise policies accordingly.

While industry associations and individual employers are beginning to show interest involving themselves in the development and management of the ITIs, their involvement in the vocational training system is still at a nascent stage. Involvement of employers in management will see a major spurt only if the government is willing to provide institutions greater autonomy. However, increased autonomy needs to be accompanied by greater accountability and performance must be measured on the basis of internal/external efficiency indicators.

The management of the Vocational Education and Training System is fragmented and shared between various institutions. There is a lot of scope to improve coordination between them and improve their effectiveness through more functional partnerships. There is a need to identify institutions to carry out impact evaluation studies/ tracer studies/ surveys of graduates from vocational institutes on a regular basis.

Since funding is largely restricted to publicly provided training, little attention is paid to financing as an innovative means to encourage good quality public / private / in-service training. Once an institution begins to receive funding, subsequent funds are assured regardless of the institution's performance. Student fees in ITIs/ polytechnics go to the state treasuries and hence, the training providers have very little financial incentive to improve efficiency and cater to the market requirements. Therefore, there is a need to revisit the funding of skill development activities.

Vocational training institutes should be given greater freedom in terms of resource generation (sale of production or service activities, consultancy) and in utilizing the proceeds for not only cost recovery but also incentivizing those who generate revenues.

National Manufacturing Policy (NMP) Proposal for Skill Development

According to National Manufacturing Policy, it is estimated that between 2007-2017, 85 million persons will be added to the labour force. The growth of total employment during this period, based on the assumptions about employment elasticity and sectoral GDP growth rates, is estimated at 116 million. With incremental job opportunities in agriculture being negative, entire projected increase in workers will be accommodated in the manufacturing and services sectors.

Overall skill gap would be significantly larger than the incremental workforce as even the existing workforce would need retraining/skill-specific training. Recognizing the urgency of interventions needed to address both the qualitative and quantitative gaps in skill development, the National Manufacturing Policy proposes to create a 3-tier structure for skill development, namely, skill building among large number of minimally educated workforce; relevant vocational and skill training through establishment of ITIs in PPP mode; specialized skill development through establishment of polytechnics; establishment of Instructor's Training Centre in each NIMZ, skill building among the minimally educated workforce:

1) Skill building in this segment would include Farm to Work, and School to Work programs targeted at the minimally educated workforce entering the non-agricultural sector for the first time and seeking seasonal employment. This group will be trained for low skill categories

as loaders, cleaners, etc, as well as for skills of basic operations on the factory shop floor, basic machine operations, and compliance with safety and quality requirements based on the ability and aptitude of trainees and the area-specific skill gaps identified. Skill building will also cover behavioural aspects pertaining to the urban-industrial work culture - timeliness, reporting, and ability to work in an organized set-up.

2) These will be demand-driven short-term training courses based on Modular Employable Skills (MES) prescribed by DGET. The courses will be of short duration so that the opportunity cost of being away from productive work opportunities during the training period is minimized.

3) Efforts of private sector companies/institutions, directly or through their nonprofit arms, on skill upgradation, will be scaled up with appropriate incentives and infrastructural support, through a mix of viability gap funding and weighted deductions. To encourage the private sector to effectively participate in the skill development initiative, the Government will provide a weighted standard deduction of 150% of the expenditure (other than land or building) incurred on Public Private Partnership (PPP) projects for skill development in the manufacturing sector in separate facilities in coordination with NSDC.

4) Training and course content in local languages will be ensured.

5) The apprenticeship concept is the most important intermediary step for improving employability of the workers. There hardly exists any institutionalized infrastructure which matches an apprenticeship candidate to an employer; an employer to a candidate; and a trained apprentice to a job. The apprenticeship program will be remodelled so that it becomes effective on the job training rather than mere compliance with the Act without any focus on the outcome. Its scope will be widened to cover most sectors of the economy in consultation with industry and industry associations. This remodelling of the apprenticeship program will be done by the Ministry of Labour and Employment.

6) In a NIMZ, the SPV will undertake skill upgradation in co-ordination with the National Skill Development Corporation (NSDC): (a) Preference will be given to the local residents in the first five years of operation and training will be extended to others only if all the available seats are not filled up by the local residents. (b) Independent certification and assessment by third -party agencies acceptable to the industry will be mandatory to ensure quality standards and employment. (c) The SPV and the service provider will undertake appropriate awareness and publicity campaigns in local electronic/print media and organize meetings in different locations for mobilization and selection of trainees. (d) Wherever necessary, boarding and lodging facilities will be provided to the trainees by the SPV and service provider for trainees from remote locations. In other cases, trainees will be provided with to-and-fro transport and food.

The Outlook

India has a favorable demographic profile with over 60% of population in the working age group of 15-59 years. For a country with the largest youth population in the world, this creates a challenge of significant magnitude. Over the next decade, India has to create gainful employment opportunities for a large section of its population, with varying degrees of skills and qualifications. This will entail creation of 220 million jobs by 2025 in order to reap the demographic dividend. The manufacturing sector would have to be the bulwark of this employment creation initiative. Every job created in manufacturing has a multiplier effect of creating two to three additional jobs in related activities. Additional job opportunities in manufacturing alone are estimated at 24.5 million during 2006-2017. All these jobs would require sector and skill-specific trained workforce. Since only 6% of the Indian workforce receives any form of vocational training currently, there is a pronounced skill gap both in terms of quality and quantity.

Training Targets

The National Skill Development Mission has set a target of imparting skills training to 500 million by 2022

Improved training and skill development is critical for providing decent employment opportunities to the growing youth population and necessary to sustain the high growth momentum.

National Skill Development Mission launched in the Eleventh Plan has brought about a paradigm shift in handling skill development programs has clearly defined core principles and put in place a Coordinated Action Plan for Skill Development.

National Skill Development Mission

The realization of demographic dividend led to the formulation of the National Skill Development Mission, which set a target of imparting skills training to 500 million by 2022. The Prime Minister's National Council on Skill Development is an apex institution for policy direction and review. The Council is at the apex of a three-tier structure and would be concerned with vision setting and laying down core strategies. The Council would be assisted by the National Skill Development Board chaired by the Deputy Chairman, Planning Commission, which will coordinate action for skill development both in the public and the private sector.

The National Skill Development Mission launched in the Eleventh Plan has brought about a paradigm shift in handling skill development programs, has clearly defined core principles and put in place a Coordinated Action Plan for Skill Development. A three-tier institutional structure is already in place for the purpose. This lays down a solid foundation for a skills ecosystem in the country.

Goal & Strategy

Ultimate aim of the National Skill Development Mission is to provide, within a five-to eight-year timeframe, a pool of trained and skilled workforce, sufficient to meet the domestic requirements of a rapidly growing economy, with surpluses to cater to the skill deficits in other ageing economies, thereby effectively leveraging India's competitive advantage and harnessing India's demographic dividend.

The Skill Development Mission (SDM) will have to ensure that the supply-side responses are perpetually in sync with the demand-side impulses both from domestic as well as global economies. The mission will, therefore, have to involve both public and private sectors

in a symbiotic relationship, with initiatives arising from both sides with reciprocal support. Thus, public sector initiatives to repurpose, re-orient, and expand existing infrastructure, will need involvement of private sector for management and running of Skill Development Programs, ending with placement of candidates. Similarly, Private Sector Initiatives will need to be supplemented by government by one-time capital grants to private institutions and by stipends providing fee supplementation to SC/ST/ OBC/ Minorities/other BPL candidates. Thus, the core strategy would consist of a two-track approach, of a public arm of amplified action through ministries and State Governments and a private arm of specific and focused actions for creating skills by the market through private sector-led action.

In case of government-led initiatives, the concerned Ministries will conceptualize the initiatives for either expanding and improving existing institutions and providing them with enlarged budgets and improved action plans or they will set up new generation institutions with budgetary support. For industry or service sector-specific private initiatives, the entire strategic thinking and plan of action will emerge from industry associations and ministries will be involved in structuring government response and providing budgetary support. The SDM will oversee and facilitate the entire process of collaborative action.

The strategies of the Mission will be to bring about paradigm change in the architecture of the existing vocational education training VET system, by doing things differently.

For instance, encourage ministries to expand existing Public Sector Skill Development infrastructure and its utilization by a factor of five. This will take the VET capacity from 3.1 million to 15 million. This will be sufficient to meet the annual workforce accretion, which is of the order of 12.8 million. In fact, the surplus capacity could be used to train those in the existing labour force as only 2% thereof are skilled. This infrastructure should be shifted to private management over the next 2-3 years. States must be guided as incentivizer to manage this

transition.

The Mission will encompass the efforts of several ministries of the Central Government, State Governments, and the activity of the private arm, supported by the following institutions: (i) Prime Minister's National Council on Skill Development, (ii) National Skill Development Coordination Board, and (iii) National Skill Development Corporation/Trust. The Central ministries which have skill development programmes will continue to be funded as at present. However, the spectrum of skill development efforts will be reviewed periodically for policy directions by the Prime Minister's Council on Skill Development. The Council will be supported by a National Skill Development Coordination Board, which will be charged with the coordination and harmonization of the governments' initiatives for skill development spread across the 17 Central ministries and State Governments with the initiatives of the National Skill Development Corporation/Trust. State governments will be encouraged to set up State-level Skill Development Missions.

Initiatives by Ministries

Over the years, some 20-odd ministries have created an infrastructure for skill development. There are 1896 ITIs (under State Governments), 1244 Polytechnics, 669 Community Polytechnics, 9583 Secondary Schools with VET Stream and 3218 ITCs (in private sector). Besides, Ministries of Rural Development (RD), MSME, Health, Tourism, and several others have their own establishments.

The Ministry of Rural Development has launched schemes that aims at empowering young people from the poor and weaker sections of the society through schemes like "Special Projects for Placement Linked Skill Development of Rural BPL youth under Swarna Jayanti Gram Swarozgar Yojana (SGSY-SP) with an objective of ensuring time-bound training aimed at bringing a specific number of BPL families above the poverty line through placement services.Rural Development and Self Employment Training Institutes (RUDSETI) were launched with an objective of setting up a dedicated Skills development infrastructure in each district in the country aimed toward entrepreneurial development.

The Ministry of Urban Development and Poverty Alleviation had launched the Swarna Jayanti Shahari ROZGAR Yojana (SJSRY) in 1997 to address the Skill development issues of the urban poor. The Swarna Jayanti Shahari Rozgar Yojana (SJSRY), had been comprehensively revamped in view of addressing the drawbacks observed in implementation. The three key objectives of the revised Swarna Jayanti Shahari Rozgar Yojana (SJSRY) are addressing urban poverty alleviation through gainful employment to the urban unemployed or underemployed poor; supporting skill development and training to enable the urban poor have access to employment opportunities provided by the market or undertake self-employment; and empowering the community to tackle the issues of urban poverty through suitable self-managed community structures and capacity-building programs.

Global Collaboration

Government of India is nurturing several international collaborations for skill development with developed and industrialized countries like the UK, Germany, and Australia.

Specialized skill training or vocational education continues to be a critical area of concern in the Indian context. Only 2% of the Indian workforce is formally skilled. While there are 12.8 million new entrants in the workforce every year, the existing training capacity can only address a small proportion of that. India has marginally improved its performance in basic education and vocational training, while its competitors have made much higher gains in this area over the previous decade. In South Korea, 96% of the workers receive formal skills training; this is followed by the UK with 68%. As far as enrolment in vocational education and training courses is concerned, India has net enrolment of 3.5 million per year, as compared to 90 million in China and 11.3 million in the US.

However, the Government of India is fostering several international collaborations with developed and industrialized countries like the UK, Germany, Australia and so on.

The UK India Skills Forum (UKISF) established in April 2002 is an initiative led by the UK India Joint Economic and Trade Committee (JETCO). It provides a platform for organizations across the technical and vocational education sectors in UK and India, to tap the business opportunities by exchanging ideas for delivery of skills training by collaborations between the two countries.

India and the UK have also undertaken several collaborations and initiatives on skills development together. The UK India Education and Research Initiative aims to work with a range of different skills and training bodies to enable participation and facilitation of skill development requirements in both these countries.

It aims to promote long-term collaborations between both the countries on skills development.

Germany, a pioneer in the manufacturing industry has been providing both financial and technical assistance to India since 1958 through the Ministry of Economics and Cooperation. Institutes like Foremen Training Institute (FTI), Bangalore; National Instructional Media Institute, Chennai or the Central Staff Training and Research Institute (CSTARI), Kolkata were all set up with assistance from Germany.

Presently, the German side has suggested setting up 'Vocational and Educational Training' in India based on the 'Dual Education' system in Germany. A meeting of the Indo-German Joint Working Group on Vocational Education and Training saw a consensus on creating a Public Private Partnership on the pattern of the German Dual system. German assistance would be received for upgradation of the vocational training centres and development of competency standards. The National Occupation Standards was established several decades ago in Germany and has been constantly subject to change, in light of the changing market dynamics. Several countries have modelled their policies on these Standards.

A joint statement issued in the meeting of Indo-German Joint Commission on Industrial and Economic Cooperation emphasized on the potential for German Companies to invest more in India and take advantage of the enormous business opportunities available in India. It emphasized on the robust growth in the Indian manufacturing and industrial sectors providing a good base for Indo-business joint ventures, given Germany's proven performance in the manufacturing sector. Further emphasis was laid on how German companies can enhance their global competiveness by leveraging India's skills in the service sector. A leading German Automobile company Volkswagen has started an apprenticeship programme in India based on the dual system of vocational education and training in Germany.

Australia is also collaborating with India in various skill development initiatives so as to share expertise and experiences. This is facilitated through the new bilateral Australia India Education Links website. The website is an information portal that supports education and training collaborations between Australian and Indian education and training institutions, business and industry. A forum for facilitating linkages in the skills area is the Bureau for Vocational Education and Training Collaboration (BVETC), established by Australia and India in 2010. The BVETC meets regularly to consider collaboration proposals from the vocational education and training sector and provide advice on the best ways to achieve successful partnerships between the countries. Australia's Minister for Tertiary Education, Skills, Jobs and Workplace Relations, emphasized on closer collaboration with India to train skilled labour for mining and construction, to satisfy manpower demand for its booming industry. The training will be accredited by Australian Agencies. Chris Evans said that it will support Australia and India in building a 'highly-skilled and well-trained workforce'.

The New Zealand Open Polytechnic is government owned and funded, and delivers distant learning courses across New Zealand as well as internationally. Over 100 qualifications and 1200 courses ranging from technical, vocational to higher professional and continuing education courses have been developed in consultation with the industry and other appropriate professionals. It has adopted internationally proven models for distant learning course design, student support and quality control. It has also been continuously increasing the range of its online services and courses.

Best Practices in the UK: The UK's system is largely outcome-based. Training providers have the flexibility to plan a delivery system that is based on the needs of the learner. The country's apprenticeship schemes at every level create a vocational ladder, beginning at the age of 14 and ending with either a higher educational qualification or employment. It is aimed at the high work readiness of dropouts aged 16 to 24 years, with 66% of the dropouts from school (aged around 16 years) and 84% of the higher education dropouts who are willing to work. Besides, employers invest in the learning and development of their employees. The UK Government has formulated several programmes for imparting vocational education and training. Its 'Lifelong Learning' program aims to promote learning after the end of formal education and training.

Best Practices in Germany: The country's dual system of vocational training is regarded as one of the most important factors that have contributed to the proven competitiveness of the German manufacturing industry. This model promotes close cooperation between vocational schools supported by the government and the enterprise in which training is provided. The Industry determines the curriculum requirements and certification processes. This training is primarily performed on the job.

Under the dual system (which forms the core of vocational training), which is spread over three years, every young person who has completed full-time compulsory education has access to vocational training along with the former. Training takes place in companies and at part-time vocational schools. Successful completion of this training provides recognition to people for employment as qualified skilled employees. Thereafter, companies enter contracts under private law and then train such employees according to their vocational training directives, which guarantees a national standard of competence. Around two-thirds of the instruction provided is vocation-oriented and one-third provides general education or knowledge applicable to a broad range of occupations. The cost of vocational training is primarily borne by public funds.

Business associations play a key role in monitoring the quality of training provided by companies under the dual system.

Imparting Vocational Training

Trainers and institutes form the backbone of the vocational training domain as they are service providers to the trainees as well as the industry.

Looking at current Indian economic growth, it is projected that the county will become the second largest economy in the world by the year 2050. It is considered that the Indian economy will thrive on its demographic profile. The current population of India is 1.2 billion and is expected to rise to 1.8 billion by 2045. This expansion in population is indicative of the fact that there would be an increase in the working age (15-64 yrs) population. In order to achieve high growth rates with a growing population, skill development has emerged as an important area that needs strategic and planned policy cum intervention.

According to a study by CII - Planning Commission, it has been projected that 2/3rd of the jobs will be for low-end skills. This brings out the importance of short or medium duration vocational training to a large number of youth enabling them to get an access to skill-based employment. Many of these jobs can also be transformed into self employment. Thus, skill development will not only generate job employment but many of the trades can emerge as micro-enterprises wherein the trainees can exercise an option of self-employment.

Trainers & Training Institutes

Trainers and Training Institutes form the backbone of the vocational training domain as they are service providers to the trainees as well as the industry. With the growing demand for skilled workforce, there is an increasing demand for trainers as well. Non-availability of quality trainers in adequate numbers is a concern aired by most of the training institutes. Hence, sourcing of trainers becomes critical wherein creation of a resource pool and methods adopted by training institutes to create awareness about job opportunities assumes significance. The very basis of training gets diluted by such lack of reliable sourcing mechanisms. It is quite clear that without proper sourcing

mechanisms, delivery of training will remain dependent on ad-hoc means.

Many researchers have indicated that around 10% of trainers are registered with employment exchanges while one-fourth of the trainers have never registered with employment exchanges in spite of awareness about such facilities. Newspaper and the Internet are the major sources of job information for trainers followed by friends and colleagues. Government and NGO-run institutes use newspaper advertisements to share information and vacancies. However, information about current job opportunities was reported to be known through friends and colleagues by 50% of the trainers excluding those in government institutions.

Majority of training institutes have been sourcing trainers through referrals (by staff, well wishers, industry experts, etc) and press for a robust mechanism that can serve their immediate needs. In a bid to overcome the problem of unemployment and to create skilled manpower, the Odisha government has decided to take up placement-linked training program through the State Employment Mission by conceiving Autonomous Employment Exchange.

Interestingly, a study shows that though 42% of the trainees come from rural areas, 85% of the trainers are from urban locations. It was further observed that even for training institutes located in rural areas 85% of trainers come from urban areas.

The selection procedure for trainers varies across all types of training institutions. Government training institutions follow certain fixed norms and procedures for selection while private and NGO-run training institutions have developed their own ways of selection, commensurate to their business models, sectors/trades, and location.

According to a National Skill Development Cooperation report, one-third of the trainers in government institutes reported of written tests as part of the selection procedure. Practical test is another important instrument for selection of trainers adopted by 40% institutes across categories. Trainers reported technical skills followed by teaching skills as the major strengths aiding their selection across the categories of training institutes. Lack of eligibility criteria adds to the complexity wherein training institutes resort to varying criteria to select trainers.

Use of Technology

Technology is viewed as an enabler in the vocational training domain. It cuts across all major functions of the training space covering recruitment and capacity development of trainers, training delivery, and quality control.

The extent of technology usage varies by the investment made by training institutes. It was found that institutes make such investments based on training type, target segment of trainees, trades and sector and recruiters requirements. Training institutes need to make substantial financial investments to create appropriate infrastructure for leveraging technological advances. Private training institutes are leaders among the three categories of institutes having invested in developing technology infrastructure and process innovation through which they have adapted various technologies for use in the vocational training space.

The most prominent use of technology is in training delivery where numerous classroom teaching aids are used by trainers to facilitate the learning process for the trainees. Usage of technology is high for the trades wherein the recruiting industry is largely technology dependent. It is observed that technology usage in training related to gems & jewellery and textile & clothing is high as these sectors are technology intensive while training related to construction & building, organized retail & tourism and hospitality is less technology dependent as these sectors are themselves not highly technology dependent. The possibility of using technology also depends on the basic education and technology exposure of the trainees.

Overall, vocational training has a low adoption of technology. The following factors are reponsible for low adoption: i) inability to allocate adequate resources by most training institutes as their business base is small, ii) lack of initiative on the part of the industry to invest or support in upgrade of training institutes, iii) government institutes like ITIs and polytechnics suffer from system constraints that include slow decision making and procurement delays leading to slow upgrade of established systems, iv) project-based training especially those run by NGOs often don't have financial provision for technology infrastructure, v) requirement for extensive re-skilling of existing trainers for using new methods and processes as primary findings showed that only 29% of the trainers are trained to use technology for training delivery purposes.

Conclusion

Enhancing the knowledge and skill levels of vocational trainers is imperative for overall development of skilled workforce and employment scenario in India. The relevance of vocational training to industry requirements is dependent on the contemporariness of the trainer's knowledge and understanding of the sector and the occupational skills. In this light, the importance of continuous enhancement of trainers' capacities has grown due to rapid changes in the Indian economy and employment space.

Knowledge and skills enhancement is perceived to be a direct outcome of education and training. It involves various means like classroom teaching, demonstration, exposure and hands-on practice. Numerous initiatives by government and private bodies are directed at developing infrastructure and systems for trainers training. These initiatives cut across the entire spectrum starting at curriculum development and accreditations and ending with training and certification.

Government initiatives have targeted establishment of national-level authorities, certification bodies, and advanced training institutes while private bodies have tried to develop and promote voluntary standards often using technical know-how from foreign institutions. However, these standards vary widely and are promoted individually by different reputed brands of training institutions. MM

Enhancing Worker Productivity – The Need of the Hour.

India has the potential to be the next manufacturing superpower. With a GDP greater than US $ 1 trillion and a manufacturing GDP of US $ 189 billion, India is considered one of the Top 10 industrial economies.

Considering the low labor costs and a growing working population, India has what it takes to surge ahead in the manufacturing space. What then prevents this explosive growth? The March 2013 CII-BCG Report on People Productivity by The Boston Consulting Group discusses this in detail and outlines some recommendations.

India's low people productivity (output per employee) is the stumbling block to India's progress on the manufacturing front. Other economies with better people productivity have a bigger share of the global manufacturing pie. It is therefore critical for the Indian manufacturing sector to come up with effective initiatives targeted at enhancing the productivity of its workforce.

Attracting Talent

Unless the manufacturing industry attracts quality talent, worker productivity is unlikely to improve. Currently, students don't opt for manufacturing as a career option since they lack awareness, find it unglamorous, and do not find lucrative

job opportunities available.

In India, salaries in manufacturing, with regard to entry-level jobs as well as senior-level jobs are lower than those in other industry such as financial services by around 30 to 65 percent-significantly wider than the range of 5 to 25 percent observed in the U.S. Job location in tier II and III towns and insipid job profiles in manufacturing when compared to the services sector in terms of designation, variety of work, travel, networking opportunities etc make manufacturing as a career option unappealing.

Manufacturing firms need to engage in brand-building activities, establish a student-connect, and promote awareness activities for students. Firms need to work on developing a more conducive working atmosphere, providing a better employee experience and repackage job offerings to suit students' expectations.

Companies also have to emphasize their unique selling propositions-(ESOPs), fringe benefits, job security, better work-life balance and the opportunity to acquire domain expertise through specialization or job rotations-vis-vis employers from other sectors.

Grooming interns, facilitating live projects, leveraging alumni connect senior management, organizing pre-placement talks, fostering mentorship/buddy programs, conducting interview workshops, sponsoring campus events, handing out promotional material, developing fast-track programs, reducing job monotony, highlighting plant location benefits, providing flexibility on location preferences, and non-monetary benefits or perks, can all contribute toward building a brand and establishing better connect.

Skill-Building Programs

Training to impart skills is another area that needs attention of both manufacturing firms and the government. 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.

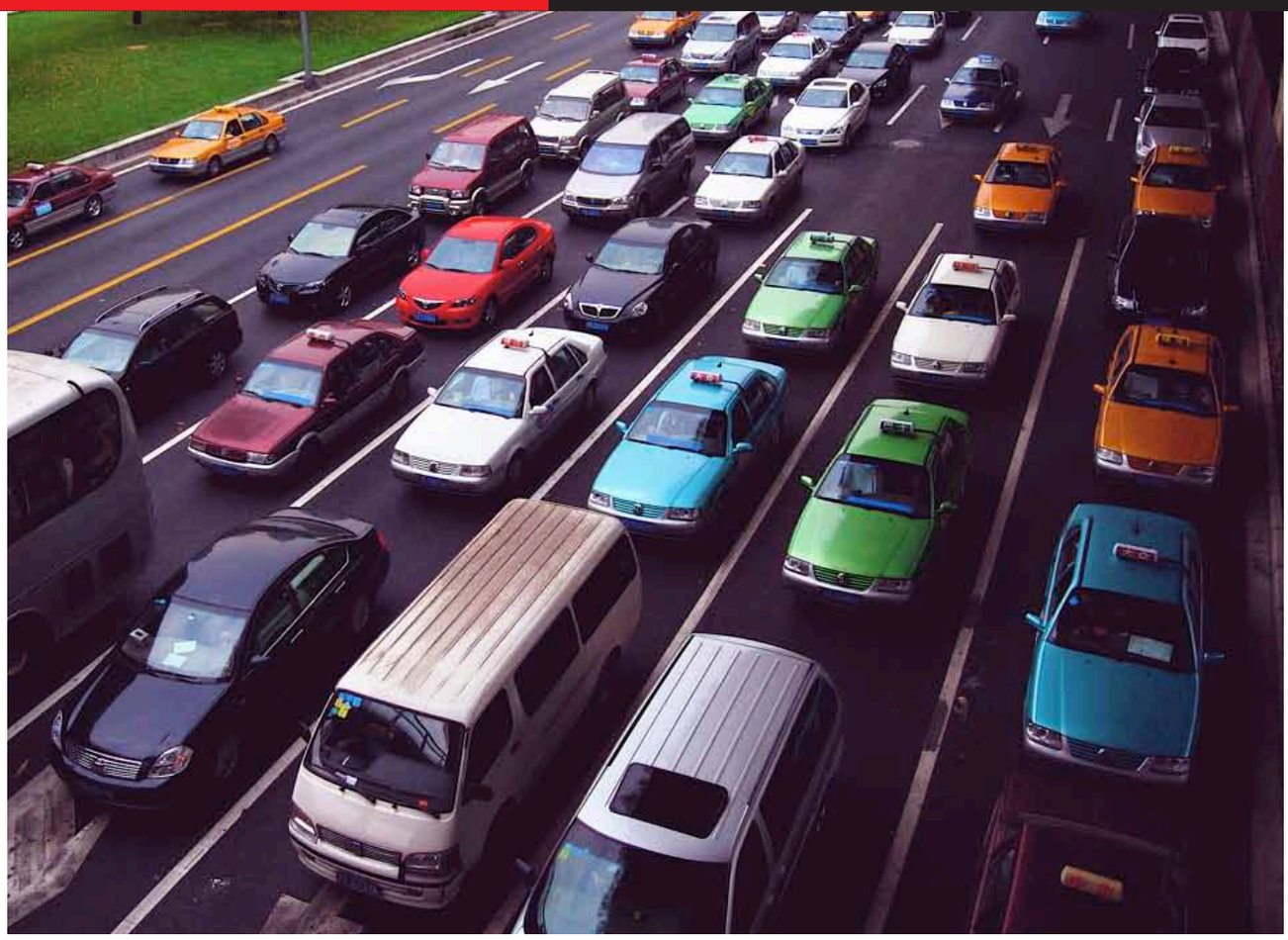
Lack of industry participation in the training process, inflexible government policies, lack of student mobilization for vocational programs and little emphasis on general academic skills in vocational programs are some key challenges.

While the government needs to invest in training infrastructure and vocational training, manufacturing companies need to collaborate actively with training institutes and improve their attitude toward training in addition to investing in training.

Employee-Engagement Initiatives

An involved workforce is a productive workforce. Engaging employees of a company is crucial to driving innovation and moving the enterprise forward. This requires the top management to lead a "People Centric" transformation program, to make the workforce informed, involved and inspired to drive organizational performance.

India needs to take advantage of its large working population and low labor costs to carve a leadership role for itself in the manufacturing sector. By overcoming the main stumbling block, namely its poor people productivity, India can seize this opportunity and surge ahead.MM



In High Gear

Contributing nearly 6.7% to the country's GDP and about 18% to the kitty of indirect taxes to the government, the Indian automotive industry employs a significant number of personnel, providing direct and indirect employment to over 13 million people.

The Indian automotive industry is a significant contributor to the Indian economy, contributing nearly 6.7% to the country's GDP and about 18% to the kitty of indirect taxes to the government, while investment outlay stood over Rs. 1Lac Cr. With its wide penetration and strong influence on the country's economic and industrial development, the auto sector is indeed one of the major drivers of our economy. Moreover, economic liberalization coupled with its technological, cost, and manpower advantage have made India one of the prime business destinations for many global automotive players.

Workforce in the Automobile Industry

The automotive industry, by its very nature, has considerable forward and backward linkages and thus employs a significant number of personnel. The Society of Indian Automobile Manufacturers (SIAM) has estimated that the Indian automotive industry provides direct and indirect employment to over 13 million people. Direct employment includes personnel working with automobile OEMs and auto component manufacturers (about 30% to 40%). Indirect employment includes personnel working in the enabling industries, such as vehicle finance and insurance industry, vehicle repair, vehicle service stations, vehicle maintenance, vehicle and component dealers, drivers, cleaners etc (about 60% to 70%).

Hence, one of the key areas at the industry level where significant gaps exist today is the availability of skilled manpower and the problem is not so much in terms of quantity, but more in terms of quality of manpower available. This also leads to lower productivity of the automobile sector in India as compared to other nations producing automobiles.

More so, the problem is likely to worsen going forward considering the kind of growth and development that is foreseen for the Indian automotive

Industry. As the industry progresses along its growth path, in order to provide for comprehensive growth, it will become imperative to track the enablers of the market and industry and at the same time capture and react to changing skill requirements in each of these areas along with the skill requirements of the mainstream industry.

Trends

Several emerging trends are seen in the automotive industry in India. These trends will, in turn, give rise to the corresponding human resource and skill requirements. For instance, more number of electronics engineers will be needed to work on the increasing electronic content of vehicles. Design engineers will need to work on complicated engine designs, and design as well as manufacturing personnel will be needed for hybrid vehicles. Similarly, personnel to work on the emerging regulatory trends will be needed - for example, design engineers will need to have advanced knowledge of emission and safety regulations. This will also lead to increasing human resource and skill requirements at the supplier's end.

With the advent of foreign players in the OEM space and with the demand-supply situation with respect to skilled human resources in the automotive industry in India being the way it is, personnel currently employed at OEM's suppliers are found to be industry-ready and they are thus being attracted by the foreign players into their fold. Thus, a major challenge currently being faced by OEM's suppliers, is retaining their skilled employees, leading to increasing cost of human resources.

A recent trend seen in the automotive industry in India is the recruitment of BSc graduates at the same level as ITIs or diploma engineers. It is observed that BSc graduates are able to adapt to the manufacturing environment and learn quickly - they need to be given the same amount of training (6 months to one year) that is generally provided to fresh ITIs or diploma engineers. Also, the attrition of diploma engineers for higher studies is not found in BSc graduates. Going ahead, as the auto

industry further focuses on the design and development function, science graduates may also be required in the design and development field (e.g. chemists / physicists may be required in companies that produce castings / forgings). The industry perceives this trend to increase going ahead, and BSc graduates are expected to account for an increasing proportion of the workforce employed in the automotive industry in India.

Shortfall of human resources in vehicle design and styling functions: Styling of vehicles is a key competitive advantage for OEMs, but at the same time styling and design capabilities are significantly lacking in India - this is why most auto OEMs in India depend upon design houses abroad for styling of the vehicles being developed by them. With the increase in product development activity in India, the need for developing design capabilities in the country is increasing dramatically. This is also being driven by the need for developing vehicles as per the tastes of fast-growing local and Asian markets. The Indian OEMs, over the years, have set up in-house design centers for enhancing their capabilities to develop products to suit customer choices, which are fast changing. The global OEMs have also felt the growing need for developing vehicles as per local requirements and have started setting up design houses in India. The focus on developing vehicle design capabilities in India is driving the need for qualified manpower with the requisite capabilities. Availability of qualified and talented vehicle designers is being considered as one of the biggest bottlenecks in designing vehicles in India. The supply side is also currently limited, with the Master in Design course being offered by some IITs and NID, Ahmedabad. However, in order to build competencies of global levels, continuous availability of a large pool of qualified and talented designers will be necessary.

Vehicle financing and vehicle insurance are underlying support systems for the automotive industry in India and these may be considered as the enablers of growth. The enabler segments are associated with providing indirect employment to personnel in the auto industry.

The automotive industry in India is characterized by maximum proportion of the workforce being male. Women employed in the auto industry are mainly employed in functions such as design, HR, finance and in support office functions. This has primarily been the case due to the low availability of women who take up courses such as mechanical engineering in college. Companies, especially auto OEMs and Tier I suppliers, are making a conscious effort to increase the participation of women in the workforce, including in the core operations function.

The used car industry in India has traditionally been unorganized, and has been characterized by small players buying and selling vehicles and direct seller-to-buyer interaction. This scenario is already changing, with the advent of players such as Maruti True Value and Mahindra First Choice. The organized used car market provides several advantages to the end-customer since vehicles purchased by used car dealers are thoroughly tested and valued accordingly, customers can be more sure of the quality of the product bought from used car dealers as against unorganized players. The further proliferation of used car dealerships is also expected to expand the need for certain skill sets in the industry; for example, a greater number of personnel are in demand for testing, inspecting, and valuing used cars, sales personnel are expected to not only sell used cars but also to aid in purchasing used cars, drivers are required for test-driving used cars.MM

Industry Best Practices for Growth in the Manufacturing Sector

Although the manufacturing sector in India has grown to employ 50-60 million people in 2008, there is room for further growth since the sectoral contribution to GDP is just 15% and the percentage of workforce engaged in manufacturing is only 12%.

There is tremendous potential for growth in the manufacturing sector if issues plaguing it are resolved. A theme paper developed by CII and Bain & Company titled 'Working as Partners -Aligning Aspirations' "identifies human asset strategies and practices that progressive enterprises have adopted, what factors drive adoption of these practices and whether these enterprises achieve better outcomes on labor issues and overall competitiveness while operating in the same regulatory, social and macro-economic environment as others." as Mr Arun Maira, Member, Planning Commission, Government of India outlines in his foreword to the report.

Currently, the use of non-permanent workforce has led to disparity in pay in comparison with permanent workforce. Secondly, the skill gap of 55 million in 2012 is expected to balloon to 90 million in the next 10 years. Thirdly, the ongoing signs of discontentment among the workforce is another area of concern.

The report talks about 5 'tiers' of human asset strategies, practices, and outcomes:

1. **Ensuring basic availability of low-cost labor**
2. **Driving productivity of existing workforce**
3. **Building a skilled workforce**
4. **Maximizing workforce potential**
5. **Holistic view to building labor ecosystem**

The industry would benefit from adopting some of the best practices in Human Resources followed by companies such as the Mahindra Group, Cummins India, and Vardhman in the manufacturing sector. By focusing on human asset development, rather than management of labor costs, these companies have laid the foundation for sustained growth and competitiveness. These companies are able to achieve such outcomes while operating in the same industry, region and regulatory environment as others. The key drivers observed in these companies are leadership orientation and focus on quality and value addition in the enterprise's competitive and manufacturing strategy.

Hiring Practices

The automotive business of the Mahindra group includes hires from a wide pool of ITIs (70%) as well as 10th pass students (30%). The rigorous selection process is competency based and includes psychometric assessment, simulated production exercise, behavioral interviews, medical screening, and verification. Cummins India is a group of complementary businesses that design, manufacture, distribute & service engines, generators & related technologies. They hire 40% of their employees fromITIs, 30% from Diploma Engineers and 30% from BA/BSc/BCom graduates. They have a sizeable proportion of women on the shop floor, with a goal to employ 25% women. Vardhman is one of the leading players in the textile space in India with 1 million spindles and presence across the entire value chain from material to apparel. Vardhman has targeted recruitment of women-particularly unmarried women from rural areas-through a program called "Empowering Women". Women workers coming in through this program are provided training, accommodation in a separate hostel, and subsidized food. Today, women constitute 40% of their workforce in Punjab and 30% in other states. They have taken a conscious decision to hire only unskilled employees and impart necessary skills in house.

Training

Apart from a comprehensive training program, the Mahindra group also funds select candidates who wish to go in for higher education. Cummins have established the Cummins College of Engineering for Women, which they run, and they have adopted an ITI in Phaltan to help build skills. Skill development gets top priority here with several programs in place such as a 1- month induction program for employees and parents, English and soft skills classes for shop-floor employees, Kaizen and process management training, and leadership development classes in addition to role-related training programs. Vardhman workers are trained at Manav Vikas Kendras run by employees in different states and knowledge workers and staff are trained at the Vardhman Training and Development Centre in Ludhiana.

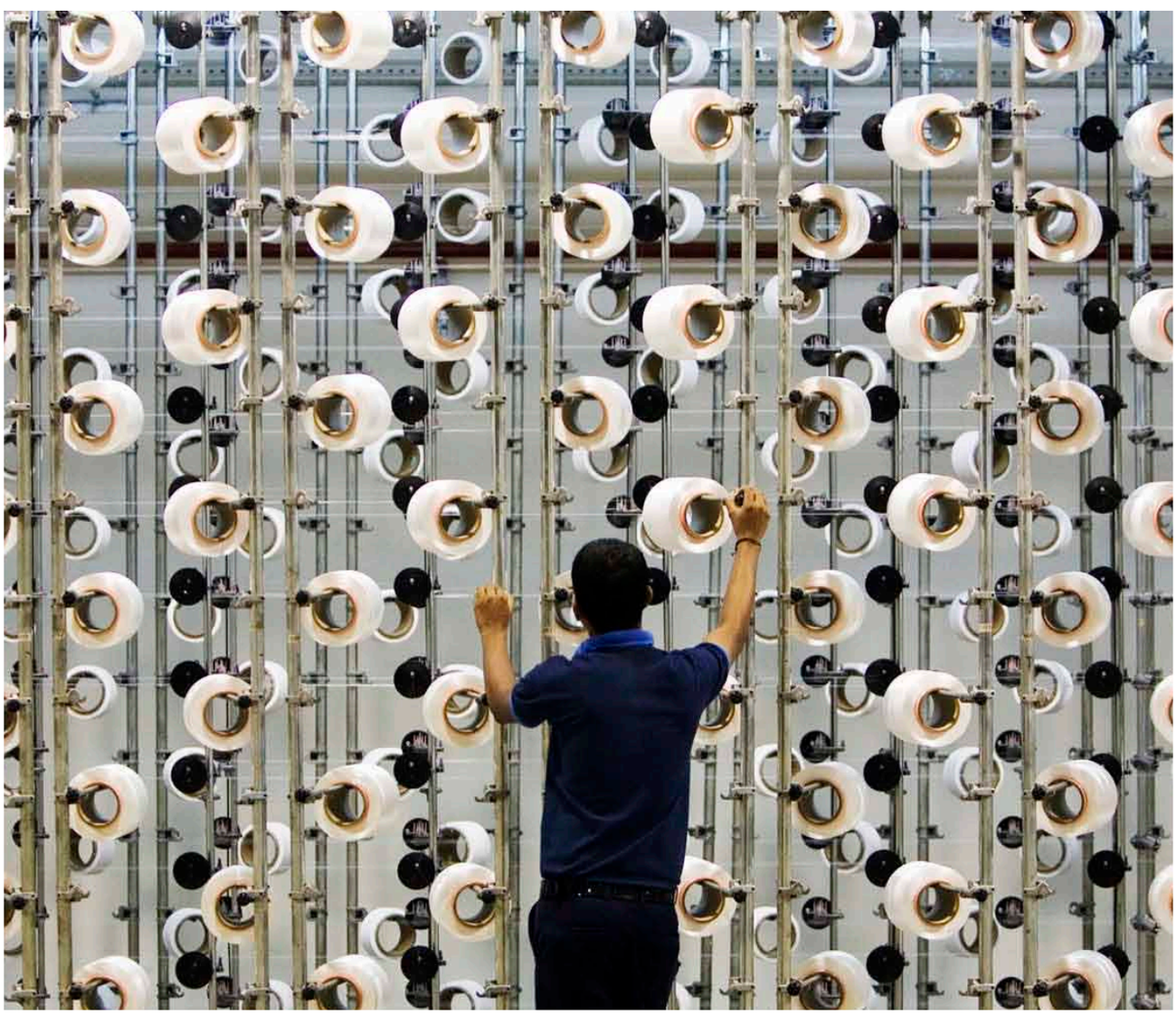
Performance management

The Mahindra group has a clearly defined career path for their employees to transition from the shop floor to management cadre. Reward and recognition schemes, CSR initiatives, and CEO Talks ensure employee engagement through the year.

The rigorous performance management system at Cummins ensures that remuneration is based on fixed parameters such as performance, skill, and tenure. Cummins tries to maintain a 30% cap on contract labor (CL), with CL used only for non-core jobs. At Vardhman, they adopt an open-door policy whereby every manager dedicates one hour daily to address employee grievances. They were the first company in the Indian textile industry to adopt quality circles in 1985, wherein voluntary groups of employees develop solutions to existing challenges and suggest improvements. Such examples help to reframe or provide a new dimension to the current contentious debate on human resources. Aligning different stakeholders and their working as partners on the challenge of developing human resources to sustain good industrial relations is likely to lead to a more engaged and collaborative process MM

Weaving Skills

Going forward, skill building would be key to the Textile and Clothing industry. This involves the challenging task of skilling about 15 million people by 2022.



The Indian Textile and Clothing (T&C) industry is currently one of the largest and most important industries in the Indian economy in terms of output, foreign exchange earnings, and employment. The industry contributes 4% to the country's GDP and 14% to the country's industrial production. Indian T&C market is estimated at around Rs 2,00,000 crore (40 billion). The textiles industry accounts for around 14% of total exports from India. Indian T&C industry is also the second largest employment generating industry, after agriculture ,with direct employment of around 33.17 million people.

Human Resource Requirements

The share of shuttle-less looms in the Indian textiles industry is only 2-3% as against a world average of 16.9%, thereby indicating a low degree of modernization in the Indian weaving industry. Although the Indian spinning sector is relatively more modernized, around 60% of installed spindles are more than 10 years old and open-end (OE) rotors account for only 1% of the total installed spindles. In the apparel sector, India has much lower investment in special purpose machines, which perform specific functions and add value to the product.

Very few export establishments have invested in cutting machines or finishing

machines. The low level of technology and government incentives would drive modernization in the industry whereas the high power costs would be a detriment.

The technological upgradation would necessitate employees to be trained in modern machinery and also greater in-house spending on training. The shortage of labor and increasing wage rate would further induce greater automation, which will lead to higher productivity. For instance, the operating hours per quintal of yarn have decreased from 77 to 25 on account of modernization and would continue to fall. Also, the number of people involved in post-spinning operations has come down on account of automatic cone winding machines.

The modern machinery would require skilled maintenance staff who have the requisite knowledge. Proper maintenance would be crucial as machine down time and costly spare parts would significantly affect the performance of the industry.

Modernization of technology would necessitate more technical skills for operators in the production and maintenance functions across the value chain of the textile industry. The sector also needs multi-tasking/multi skilling at the operator level. The human resources at the higher levels as well as in other functions like procurement would need to possess the knowledge of various types of machines and also keep abreast with the changes in technology.

A large portion of the human resource requirement will be for operators who have adequate knowledge of sewing machine operations and different types of seams and stitches. Although the industry will continue to have predominantly line system of operations, designer and high-end fashion exports would necessitate "make through" system of operations, which would require the operators to have the ability to stitch the complete garment. The availability of merchandising and designing skills would be crucial for increasing the share in export markets and tapping the potential in new markets.

Regions that Support the Textile Sector

The major centers in India where the employment generation would take place

are Tamil Nadu, West Bengal, Karnataka, Maharashtra, and Gujarat. The state of Tamil Nadu will account for around 30% of the employment in the textile sector. However, Andhra Pradesh is a likely future destination for new investments, especially in the garment sector with the establishment of apparel parks.

The government initiatives of providing power at a cost of Rs. 2 per unit will be a key factor in attracting investments in the spinning sector. Also, the state has surplus cotton and would result in lower logistics cost. Availability of raw materials and low power costs will also attract investments in the downstream activities like fabric manufacturing, processing, and garmenting.

The scheme of integrated textile parks and various SEZs would also affect the region's availability of labour. States like Uttranchal operating in SEZs require local labor.

The states of UP, Bihar, and Orissa would be key catchment areas to meet the labor requirements. Already, the spinning sector in Tamil Nadu is seeing more and more influx of labor from these states as the current wage rates in the states are very high.

Women in Handicrafts

It is estimated that out of the total number of persons employed in Handlooms, Handicrafts, and Sericulture, about 50% are women. There are more women in the household industry than in the registered small scale or cottage units. However, in the organized sector, the percentage of women workers is extremely low, with the exception being in garments.

The Government has taken the following initiatives: 1) The project for the establishment of a Seri-Technology Complex for Women. 2) The Government is implementing the Scheme for helping the NGOs & Women Self-Help Groups for developing Jute Development Parks (JDPs) with the objective of creating domestic demand for jute.

The Outlook

It is estimated that the Private Final Consumption Expenditure (PFCE) on clothing will grow at a CAGR of 7.5% between 2008 and 2022. Based on projected growth of GDP and exports, it is expected that the exports of textiles will grow at a rate of 11% to 11.5%. Thus, the overall T&C sector will grow at a CAGR of 9.5% to a size of Rs. 6,730 billion. Out of this, the share of exports is expected to increase from just under 50% currently to about 60% in 2022.

It is estimated that the human resource requirement in the mainstream T&C sector will be closely related to market-driven T&C industry growth. The human resource requirement in areas such as handloom and handicrafts would have to be supplemented by initiatives from the Government and industry. The addition of human resources into these other sectors would be at a much lower rate as compared to the mainstream sectors due to the need for significant support for earnings, scope for enhanced technology intervention and automation as compared to current levels, the need to add value, and attractiveness of the sector.

It is expected that the overall employment in the sector would increase from about 33 to 35 million currently to about 60 to 62 million by 2022. This would translate to an incremental human resource requirement of about 25 million persons. Of this, the mainstream T&C sector has the potential to employ about 17 million persons incrementally till 2022.

Workforce Engagement and Skill Building – Strategy for Manufacturing Growth

Seminar on "Workforce Engagement and Skill Imperative" shows the road ahead for the manufacturing sector.

From L-R Ms Indrani Kar, Deputy Director General, CII, Dr Surinder Kapur, Chairman CII IR Committee and Chairman, Sona Koyo Steering, Mr Arun Maira, Member, Planning Commission and the Chief Guest for the Seminar, Mr K Venkataramanan, Chairman, CII Manufacturing Council and CEO & MD, Larsen & Toubro, Ms Shefali Chaturvedi, Senior Director, CII.

The manufacturing industry is facing challenges such as deficiency of skilled manpower, low productivity, rising industrial disputes, and low appeal as a career choice. These issues have translated into declining productivity and created a non-viable industry environment. To restore manufacturing growth, there is a need to overcome these challenges and establish a conducive working system through internal restructuring.

The current growth figures reveal that the contribution of manufacturing to the economy has been 15 percent in the last two decades. As compared to its peer countries, India has the lowest people productivity. This has been due to inability to attract the right talent, shortage of proper training programs and engagement initiatives for employees. Countries like Brazil have three times more productivity than India, while that of the US is 50 times. They have maintained a high people productivity ratio even during the recessionary phase.

A seminar organized by CII and Planning Commission on 14th March 2013 in New Delhi was based on the theme of "Workforce Engagement and Skill Imperative" as a Strategy for Manufacturing Growth. The seminar focused on three key areas - Working on the Shopfloor "Manufacturing is Fun; Developing world-class productivity by skill development and training; and Working as Partners - Aligning Aspirations.

Discussions at the seminar were centered on the need of the industry to build a consensus on the governmental reforms it requires with respect to labor, training, and skill development, and then submit the recommendations to the government for amendments.

Mr Arun Maira, Member, Planning Commission and the Chief Guest for the seminar, stressed on the importance of attracting students toward manufacturing and the need to motivate students by organizing visits to manufacturing plants and creating instruments toward job security.

A CII-BCG Report on "People's Productivity - Key to Indian Manufacturing Competitiveness" was tabled at the seminar that laid emphasis on training and skilling, building mechanisms to engage workforce, and repackaging job offerings in manufacturing as three most critical points to ensure quality workforce.

The report highlights the fact that for the National Manufacturing Policy to achieve its growth target, manufacturing would need to grow at the rate of 14 percent. The report suggests a road map and an action plan for the manufacturing companies on how they can enhance their employee productivity to attract larger investments and ensure higher revenues. There is a need to develop institutionalized sector skill councils, ensure greater participation from companies on designing innovative training modules, and develop curriculum and opportunities for internship to attract youth to the industry.

Mr K Venkataramanan, Chairman, CII Manufacturing Council and CEO& MD

Mr K Venkataramanan, Chairman, CII Manufacturing Council and CEO & MD, Larsen & Toubro setting the context and chairing the Session on "Developing World-Class Productivity through Skill Building". From L-R - Mr James Thomas, Country Manager, Kronos India, Mr S C Padhy, Director, Personnel, NALCO, Mr R Krishnan, Director- HR, BHEL, Mr Sumit Banerjee, Chairman, CII Cement Industry Division and Vice-Chairman, Reliance Cements & CEO, Reliance Infrastructure, Mr Ranajn Choudhry, Principal- Programme Development, NSDC.

Larsen & Toubro laid importance on the integration of pre-manufacturing and post-manufacturing productivity recognition of people, development of tools to engage with them, and leading people by example as essential to the success of an enterprise.

Dr Surinder Kapur, Chairman of CII IR Committee and Chairman, Sona Koyo Steering, emphasized the importance of evolving a methodology to engage with the workers and encouraged the system of unions. He also stated that labor reforms alone will not suffice to overcome the current challenges.

The discussions during the session on "Working at Shopfloor - Manufacturing is fun" focused on attracting talent in manufacturing. The need of the hour is to build a brand proposition through internships, live projects, interview workshops, sponsorships, fast-track career programs, etc to improve the student connect with industry.

The speakers shared their views on encouraging field trips and internships. Other initiatives such as supporting the setting up of a B-School and teaming up with ITIs and IITs to establish a regular connect with institutes to facilitate placements were also discussed. The speakers also talked about engaging with the existing workforce through leadership programs, employee exchange programs, service awards, etc.

Skill development to achieve higher productivity was also a key focus area and was discussed in Session II on "Developing World-Class Productivity through Skill Building". The session had speakers representing manufacturing companies from both the public sector and private sector. Mr Sumit Banerjee, Chairman, CII Cement Industry Division and Vice Chairman, Reliance Cements & CEO, Reliance Infrastructure asserted that even the 1500 Public-Private Partnerships in this area have failed to attract the requisite talent.

One of the sessions in the seminar was based on case studies of companies, such as JCB India, Tata Motors, and ACC Limited who showcased the work done by them to improve their productivity by simply aligning the aspirations of their employees to that of the organization. A theme paper by CII and Bain & Co on "Working as Partners - Aligning Aspirations", was tabled at the seminar that covers the cases of these companies.

A radical change can be brought in the entire functioning of a manufacturing unit by simply motivating the employees, giving them the ownership of their work, creating an emotive connect, benchmarking salaries, improving innovation using lean processes, developing two-way communication to involve employees in all activities, pushing vocational training and education, making the Apprenticeship Act more useful, and developing employees to improve productivity. These strategies have been valuable to these companies in paving way for a healthy work environment.

Mr Maira in his way forward suggested 4 action points:

- Form sectoral consensus on issues impacting manufacturing growth.
- Modify and reinvent old laws to make them more conducive for the present environment.
- Develop innovative strategies to attract the Gen Next.
- Improve and enhance employee engagement to increase productivity.

Manufacturing as a Career

- Total working population of India is 850 Mn with lowest labor cost among top 10 manufacturing countries.
- 83% of India's labor is unskilled and labor productivity in Indian manufacturing is the lowest among peer nations.
- Low preference for manufacturing: <15% students consider manufacturing sector as their top career choice.
- Low hiring of top quality students: In more than 65% of these institutes, <15% of the top 50 students are hired into manufacturing.
- 90% of the survey respondents feel that manufacturing firms need to better market their job offerings 65% of Indian firms face difficulty in filling vacancies
- Only 18% of the Indian firms focus on formal training of their workforce, as compared to ~70% in Brazil and China.

The Employment Scenario in the Manufacturing Sector

- The manufacturing sector in India has seen consistent growth over the last few decades,and employed 50-60 million people in 2008.
- Skill gap of 55 million in 2012 will balloon to ~90 million in the next 10 years - NSDC
- Room for further growth and employment generation in the manufacturing sector, since sectoral contribution to GDP (at ~15%) and percentage of workforce engaged in manufacturing (at 12%) is amongst the lowest in developing countries.

Manufacturing IIP January 2013

The Quick Estimates of Index of Industrial Production (IIP) with base 2004-05 for the month of January 2013 have been released by the Central Statistics Office of the Ministry of Statistics and Programme Implementation.

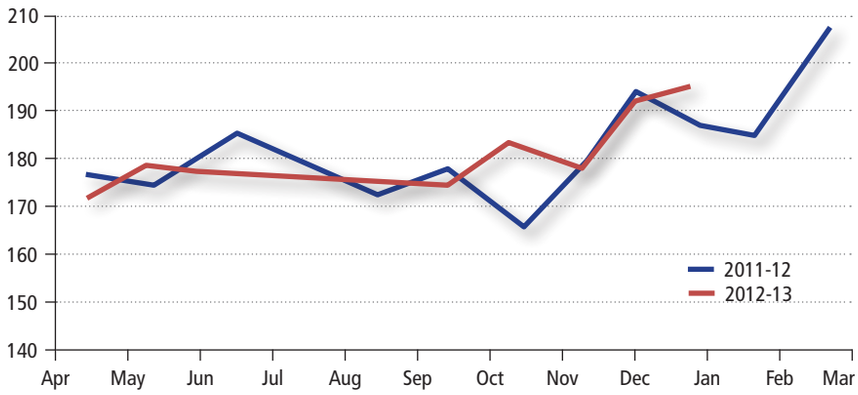
The General Index for the month of January 2013 stands at 181.8, which is 2.4% higher as compared to the level in the month of January 2012. The cumulative growth for the period April-January 2012-13 over the corresponding period of the previous year stands at 1.0%.

The Indices of Industrial Production for the Mining, Manufacturing and Electricity sectors for the month of January 2013 stand at 134.0, 193.7 and 160.7 respectively, with the corresponding growth rates of (-) 2.9%, 2.7% and 6.4% as compared to January 2013. The cumulative growth in the three sectors during April-January 2012-13 over the corresponding period of 2011-12 has been (-) 1.9%, 0.9% and 4.7% respectively.

In terms of industries, eleven (11) out of the twenty two (22) industry groups (as per 2-digit NIC-2004) in the manufacturing sector have shown positive growth during the month of January 2013 as compared to the corresponding month of the previous year (Statement II). The industry group 'Electrical machinery and apparatus n.e.c.' has shown the highest positive growth of 46.7%, followed by 19.8% in 'Tobacco Products' and 18.1% in 'Wearing apparel; dressing and dyeing of fur'. On the other hand, the industry group 'Medical, precision & optical instruments, watches and clocks' has shown a negative growth of 24.5% followed by 22.8% in 'Publishing, printing and reproduction of recorded media' and 16.5% in 'Wood and products of wood and cork except furniture; articles of straw and planting materials'.

IIP-Manufacturing (Base: 2004-05 = 100)

Indices for January 2013 are quick estimates



Source: CSO

IIP - Consumer Durable (Base: 2004-05 = 100)

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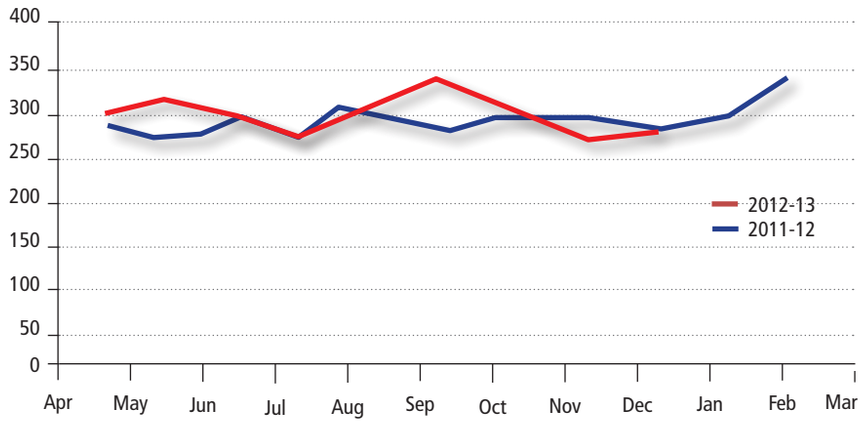

Source: CSO

IIP - Basic Goods (Base: 2004-05 = 100)

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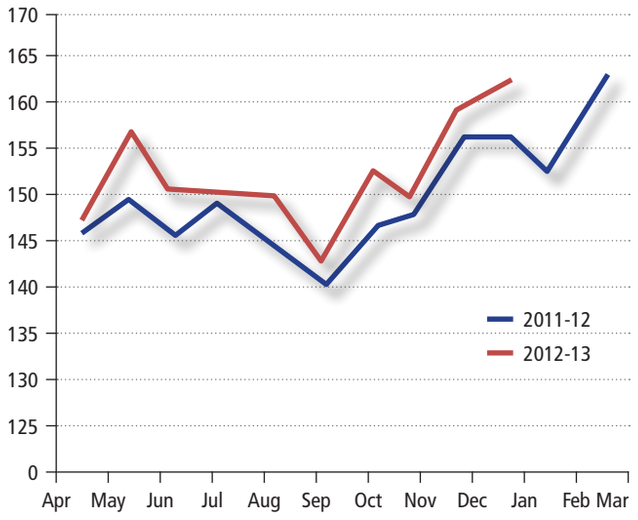

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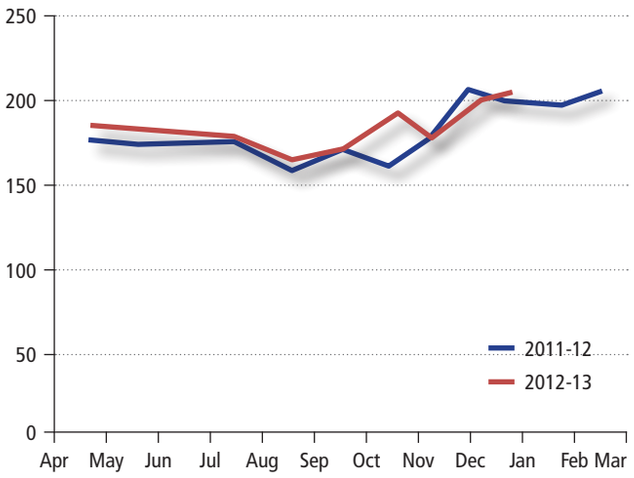

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IIP - Capita Goods (Base: 2004-05 = 100)

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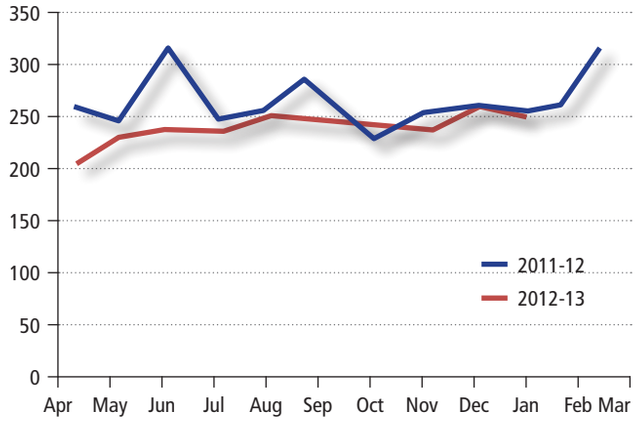

Source: CSO

IIP - Intermediate Good(Base: 2004-05 = 100)

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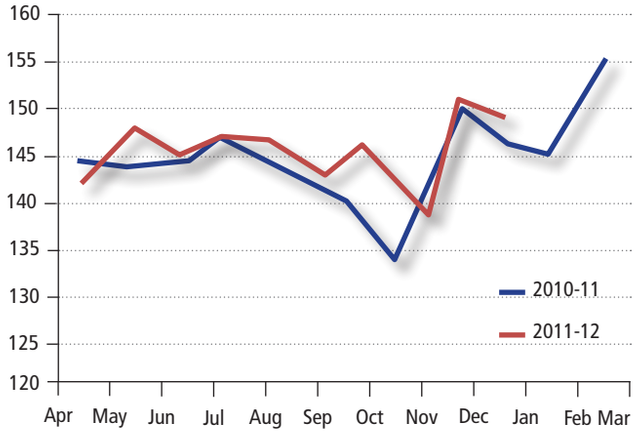

Source: CSO

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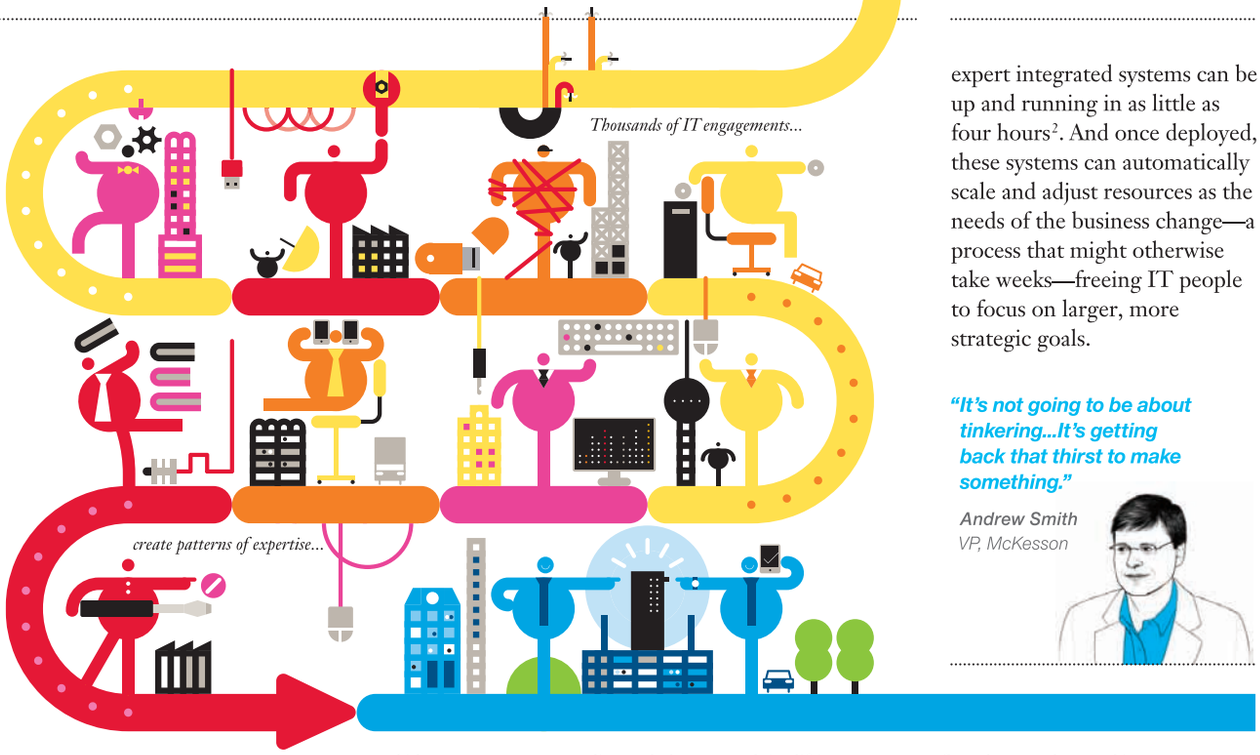
FROM DEPLOYING IN MONTHS



expert integrated systems can be up and running in as little as four hours[2]. And once deployed, these systems can automatically scale and adjust resources as the needs of the business change—a process that might otherwise take weeks—freeing IT people to focus on larger, more strategic goals.

"It's not going to be about tinkering...It's getting back that thirst to make something."

Andrew Smith
VP, McKesson

which automate processes, speeding up deployments and simplifying management. So you're on to the next thing.

TO READY IN HOURS.

According to Forrester, the typical IT department spends at least 33% of a project's budget just specifying, designing and procuring IT components. And once procured, it can take up to three months of tweaking before those resources are ready to be used[1].

With decades of experience and thousands of deployments in the same industries, on the same topics, even for the same tasks—why is it that organisations are forced to waste massive amounts of time and resources starting from scratch with every new project?

INTRODUCING IBM PURESYSTEMS.

To address this problem, IBM set out to design a system that could benefit from previous experience—a system that could follow the patterns established by successful IT projects to make it simpler to deploy and manage new ones.

With the launch of PureSystems,™ we are now delivering on that promise.

An IBM PureApplication™ System cuts the deployment of OneTree Solutions' PriceLenz™ software from 3 weeks to 8 minutes.

Using patterns established by IBM and leading software vendors, this new breed of

On a smarter planet, organisations will no longer address complex challenges with generic systems. Instead they can rely on integrated systems with the built-in expertise to help solve them. **ibm.com/puresystems/in**

LET'S BUILD A SMARTER PLANET.

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1. Based on a 2011 commissioned study conducted by Forrester Consulting on behalf of IBM. 2. Based upon testing of the IBM PureApplication System W1500-96 with time measured from powering on the system to when it is ready to support application deployments and based upon testing of the IBM PureFlex System Express & Standard models containing one chassis and one compute node with the time measured from powering on the system to when it is ready to support a virtual image deployment.