

FICCI

# ECONOMY OF JOBS



# ECONOMY OF JOBS

**Editorial Board**
A Didar Singh, Chairman
Pranjal Sharma, Consulting Editor

**Editorial Team**
Jyoti Vij
Anshuman Khanna
Pragati Srivastava

**Published by**
©Federation of Indian Chambers of Commerce and Industry 2016
Tansen Marg, New Delhi - 110001

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, without prior permission in writing of FICCI.

***The views and opinions expressed in this book are those of the authors of the respective chapters and do not necessarily reflect the views and opinions held by the publisher or the editor.***

# Contents


**Foreword** ..... **1**

1 **Not jobs. Its work and work culture** ..... **3**
*Pranjal Sharma*

2 **Bridging the demand and supply gap of employment** ..... **6**
*Harshavardhan Neotia*

3 **Create an eco-system of entrepreneurship** ..... **9**
*Ritesh Agarwal*

4 **Manufacturing jobs: The car industry** ..... **13**
*R C Bhargava*

5 **Creating jobs from farm to fork** ..... **18**
*Siraj A Chaudhry*

6 **Ensuring growth with sustainable livelihoods** ..... **22**
*Y C Deveshwar*

7 **Water and economy of jobs in farm sector** ..... **27**
*Anil Jain*

8 **Reform education and labour laws** ..... **34**
*Habil Khorakiwala*

9 **Green jobs in India** ..... **37**
*Naina Lal Kidwai*

10 **Weaving the story of jobs** ..... **42**
*Sanjay S Lalbhai*

11 **Solving India's problem of jobless growth** ..... **48**
*Arun Maira*

12 **Landscape of future jobs** ..... **53**
*Ashok Malik*

13 **A connected economy for jobs** ..... **59**
*Sunil Bharti Mittal*

14 **Employment opportunities - entrepreneurship and flexible labour laws** ..... **63**
*Y K Modi*

**15 Future of jobs! ..... 67**
*T V Mohandas Pai*

**16 Creating a skilled India, an employable India ..... 72**
*Pankaj Patel*

**17 Enabling India's job renaissance: Not more cooks but a different recipe ..... 77**
*Manish Sabharwal and Sonal Arora*

**18 Strengthen the foundation pillars for job creation ..... 82**
*Rakesh Sarna*

**19 Relooking the employment framework ..... 85**
*Rashesh Shah*

**20 Talent in the time of technology ..... 89**
*Krish Shankar*

**21 Unlocking the employment potential in Media and Entertainment ..... 93**
*Uday Shankar*

**22 Travel and Tourism: A people centric sector ..... 96**
*Jyotsna Suri*

**23 Epilogue: The last word ..... 99**
*A Didar Singh*

# *Foreword*

Given the demographic status of India, the need for creating jobs and work opportunities for its youth is imperative. The task is highly challenging, especially when technology is increasingly being used to replace manual work.

We need to urgently plan for the future - for making available varied work opportunities as well as for creating relevant skilled workforce. There is a need to ideate with stakeholders ranging from policymakers, industry leaders, economists, technologists, academicians, as well as the youth to understand the issues, challenges and arrive at solutions and ideas that can be implemented right away for near term as well as long term gains.

This book is an effort to encourage this discussion and debate. We have solicited essays from India's leading business leaders and eminent thought leaders to share their views and suggestions on the critical theme of 'Economy of Jobs'. The articles cover issues related to demographics, education, skill development, entrepreneurship, impact of technology, labour laws, employment statistics as well as specific issues across sectors like agriculture, food processing, textiles, automotive, pharmaceuticals, travel and hospitality, financial services, information technology, telecom as well as new age sectors like the green economy.

I thank all the contributors for sharing their experiences, concerns, insights and suggestions on this critical subject. I am confident that various ideas emanating from this book will help in formulating a long term plan and strategies to achieve the objective of 'work for all' and enable meeting the aspirations of 1.25 billion people.

Harshavardhan Neotia
President, FICCI

# Not jobs. Its work and work culture

*Pranjal Sharma*

This collection of articles by industry leaders and academics is not just about employment. It is not just about jobs. It is about work. And it is about a new, evolving work culture that is sweeping India as much as it is impacting the world.

When FICCI President Mr Harshavardhan Neotia and Secretary General Dr A Didar Singh invited me to help edit this collection of articles, it was heartening to realise how deeply concerned they were about disappearing jobs.

We decided to bring the experience of the best minds in the business to weigh in on solutions to the challenges of jobless growth. The questions posed were simple. What are the best ideas for industry and government to work together to create work for millions of young and experienced Indians? What have we learnt from the past? What must be done to embrace technological change and benefit from it? What should we unlearn? How can we be more agile?

We reached out to business and academic leaders to speak their minds. Some wrote their own pieces while with others we recorded engaging conversations and put those thoughts on paper.

The effort has been to build on the advice and experience of leaders from diverse sectors with special emphasis on offering constructive ideas for change. The authors of these articles are leading from the front to create new frameworks for job creation. By bringing them together, this collection hopes to show the way to all others who are concerned about unemployment.

For decades, public and private institutions have been developing and promoting policies that increase employment. The concept of employment has been rooted in our minds as a regular 9-5 job with some perks and benefits. Government developed policies that were inflexible but suited the purpose of previous decades.

India has grown rapidly in the last 25 years. Despite best efforts of the government, India is currently facing a severe crisis of unemployment. To meet this crisis head-on, a totally new approach may be needed in India. We may have to overcome the models of the past to create an atmosphere where a rising population of skilled workers are able to earn a livelihood with dignity.

Unemployment is as much a social crisis as economic. It is as much a political issue as of the human right to dignified life. Industry has to be as worried as political leaders.

> ***"As robotics and automation gain traction in India, companies will have to deploy a totally new cadre of workers. Previously held concepts and categories of work will not be relevant"***

Globally, the debate has moved from creating employment to ensuring work. And not just work but work culture. While in India, we see workers with white or blue collars, a new intermediate class is emerging. This intermediate class includes workers who may be active on shop floors but could be more skilled than many educated engineers. Companies have to prepare for this new class of workers. Old distinctions between white and blue collars will be extinct.

> ***"Flexibility in attitude, policies and approach will ensure that individuals and institutions adapt rapidly to change"***

As robotics and extreme automation gains traction in India, companies will have to deploy a totally new class and cadre of workers. Previously held concepts and categories of workers will not be relevant. Indian automotive industry is world class. It would not be long before their workers match skills of global factories.

Service sector is changing shape too. Job descriptions are evolving faster than organisational structures. In the hospitality industry, the front desk staff may soon disappear as they have at many airline check-in counters. People will still be needed, but for tasks that could be more complex and less rigid. The same front office representative could become a customer delight executive who ensures a 360 degree satisfaction for a hotel guest.

Even though manufacturing will require higher automation, the service sector has the potential of creating more work than the jobs being destroyed. Take agriculture for instance. Rising mechanization in agriculture will reduce the need for farm labour. However, the logistics and value chain of taking farm products for processing and then to consumers will need millions of trained people. Enabling people with a farm background to be trained for food related services is the most natural step to take.

Internet of things is connecting devices, industries and functions in a way few imagined and at a pace that few can cope with. A Gartner study estimates that more than 13 billion devices in consumer and enterprise segment will be connected to the internet. What will this do to workers? Will it provide more opportunities or will it irreplaceably remove jobs. It is difficult to predict the impact of such fundamental shifts led by fast changing technology. Here agility of business leaders to create ever transforming organisations will be important.

What is easy to plan for is change. Flexibility in attitude, policies and approach will ensure that individuals and institutions adapt rapidly to change. Industry leaders and policy makers have to focus on ensuring that people are prepared for the new types of work that will emerge. Jobs may disappear, but there will always be work to be done. Who will do them? The issues of unemployability could easily lead to people who just don't know what work to do even if there are opportunities.

Leaders agree that they have to invest in nurturing a new work culture. It is as much about the culture as about work. The white collar, professional class is being reorganised as virtual groups who deliver projects and then disband. Such teams come together again with different members for different projects. So the concept of departments and permanent teams may become irrelevant soon. It is happening in avant garde organisations - especially start-ups - and could soon be mainstream in large legacy companies.

Corporate leaders are ready for the change. Millennials don't believe in silos or hierarchy. They are willing to experiment as long as they are productively engaged. This is as much true in urban centres as in rural. The young think alike across domestic and global geographies.

As we debate the future of jobs, we must be prepared for new ideas, technologies and structures. Work and culture will matter. Jobs and employment may not.

---

*The author is an economic analyst and writer*

# Bridging the demand and supply gap of employment

*Harshavardhan Neotia*

*My Idea*

*Holistic understanding of issues, proper planning for future and collective efforts in implementation can help in addressing the challenge of job creation.*

India is amongst the bright spots in the world economy today, with the highest growth amongst all large economies. Yet, the pace of growth in jobs is nowhere near the overall economic growth. And this trend of jobless growth seems to linger. One of the obvious reasons is the rapid rise in the use of technology and machines, which have increased efficiency and lowered the reliance on manual work. So most of the organisations that have been reeling under the legacy issues of lower productivity have started going lean and are reducing the non-productive job roles with the help of technology. With emerging global trends like automation, robotics, artificial intelligence, such impact on jobs is likely to continue across all sectors, including IT and ITeS, which had been one of the significant job creating sectors over the last decade.

My email's inbox has off-late seen a spike in job applications, not only from fresh graduates but also from experienced candidates. This could very well be attributed to increased digital penetration and rise of social media. However, one cannot discount the fact that so many people are desperately looking for jobs, either for want of better opportunities or probably due to loss of existing job(s). The latest unemployment statistics by the Labour Bureau, that show a significant rise in unemployment, also point towards the gravity of this issue.

The near-stagnation in job market has started affecting enrolments in higher education as well. Over the last two-three years, several engineering and management colleges (excluding the premier colleges like IITs) have recorded a steady decline in student admissions. For most students, the investment in education depends on job

> ***"Most of the organisations that have been reeling under the legacy issues of lower productivity have started going lean"***

surety. With no/ limited guarantee of jobs post completion of course, the interest in engineering or management admissions has also started waning. This again is a matter of concern.

> ***"We have to be prepared for the unknown and the unexpected, given the rapidly changing ecosystems"***

Therefore, on one hand we need to have enough work opportunities for the 12-13 million entering the workforce each year, on the other hand we need to provide employment avenues to the many who may have lost their jobs because of downsizing or skill redundancy.

In the case of new entrants, the policymakers as well as industry need to start envisaging the future requirements and accordingly plan towards creating adequate work opportunities. As workforce moves from agriculture to other sectors, government and industry should jointly work on assessing future job scenarios. What are the skills that industry will need in the future? What are the services that the society needs? Where will be the maximum demand for people? How can they be prepared for it? How to attract youth to new and emerging jobs? These are some of the questions that require detailed studies and long term projections.

The rise and growth of new industries and businesses should be anticipated and manpower accordingly trained. For instance, if education goes online then teachers need to be well-equipped for the change. Technology and employment are not necessarily antithetical. The nature of jobs is continuously evolving. While some types of jobs may become redundant due to the advent of new technology, some new type of jobs will surface riding the same change. This change may seem disruptive at present, but will probably lead to far more number of opportunities and better earnings prospects.

There is a global shift occurring that is taking the focus away from employment to work; from jobs to livelihoods. It is important to understand that the decades old employment framework will be less relevant in the future. Flexible work force and virtual offices will drive the change for both white collar and blue collar workers. We have to be prepared for the unknown and the unexpected, given the rapidly changing ecosystems.

There is also the need to accelerate the process of labour reforms, which will provide flexibility and encourage industries to employ more workers. The government needs to lay special emphasis on labour intensive industries that have a huge potential to create large scale employment. The bottlenecks in the growth of such industries need to be addressed and greater support should be provided to these sectors to enable creation of more and more jobs.

Most importantly, we also need to realise that closing the gap between demand for work and availability of jobs cannot be relied solely upon through the present framework of the organised sector. There is a need to create more and more entrepreneurs who can help expand the job opportunities exponentially. Government can be an enabler in this process and help expand the entrepreneurship culture across rural and urban India. There is no doubt that some commendable initiatives have been taken by the government recently, including Start-up India, Skill India, Digital India, etc. We seem to be moving in the right direction, but the challenge is so daunting that our efforts need a force multiplier.

Innovation based self-employment needs to be encouraged. World over, as society becomes more affluent, people aspire to move towards lifestyle oriented products. Hence, there is a lot of potential in the creative space, for instance, in industries such as handicrafts, arts, design, etc.

In case of those who have lost jobs, one of the ways to assist is to re-train them for new jobs. Reskilling of experienced people needs an industry wide effort. Second is to help them become self-employed. The solution to lack of employment is not going to emerge through the organised sector alone. Creative thinking while compensating an individual at the time of lay off can go a long way and prove beneficial to both the company and the individual. For instance, when laying off experienced people, companies can extend soft loans for them to become entrepreneurs. This will help deepen the entrepreneurial culture.

The aspirations and reality are often conflicting but a holistic understanding of issues, proper planning for future and collective efforts in implementation can help us tide over the challenge at hand. I hope we will be able to achieve this with collective efforts of government, industry and individuals.

This book from FICCI is a step in that direction.

---

*The author is President, FICCI and Chairman, Ambuja Neotia Group*

# Create an eco-system of entrepreneurship

*Ritesh Agarwal*

*My Idea*

*The policy makers should recognize ten things which can be done to open the market and let new people come in and start operating or creating new products.*

In our country, there is a huge problem of finding clean comfortable hotel rooms in the budget segment. When I was growing up, we often used to go to religious destinations. More often than not we stayed at our relatives' homes because there were no clean mid-market places to stay. Five star hotels were the only category where a traveller received an experience as per some set or known expectations. Further, there were no budget-hotels chains with a pan-India presence. So even if one knew a good hotel in city A, you would be in the same quandary if your travels took you to multiple cities. This idea wasn't a great revelation, it had existed for a long time. After my twelfth grade, I was travelling continuously for three months. At that time, I visited nearly 100 hotels - from budget properties, inns to bed-and-breakfasts - and I found something common in each place - they were unpredictable and there was a surprise waiting every time I checked in. At one of the places, the beds would be tall, at the other, the washrooms were not clean. Some other places didn't accept a credit card, or had no kitchens to serve meals.

From understanding these problems, to creating a business model around it and further convincing people to invest in that idea, and then to run the business - these are very critical steps and many entrepreneurs or start-ups can falter in any of these for various reasons. However, things worked out for me. While luck does play a factor, there are two important things to ensure that you keep on jumping across the hurdles. To be a successful entrepreneur, the first thing is building a great team of people. Most entrepreneurial ventures in India are run by the founders and their friends. I spent close to a year trying to bring some of the smartest people into our team, who were not only sharp but could also roll up their sleeves when required.

Entrepreneurship doesn't restrict itself to age. I was just out of school, trying to convince industry veterans to work with me. This was extremely difficult, but I have observed that if you speak sense, and talk about something

> ***"Remember there will be failures and we should celebrate failures"***

that people can resonate with, along with some validation, it always works out. I was lucky I had the Peter Thiel Fellowship validation. There were few angels who had chosen to invest in the company. So there was always some validation to the cause I was working towards. And of course, some of these were genuinely very good people to choose and work with, which is why we were able to build a very solid leadership, incredible professionals in each of their fields. For example, the CFO, CXO and people at the strategic planning level are all veterans in their fields of execution.

Secondly, for an entrepreneur, being true to your idea and not giving up your ambition is the key. For instance, we have set up a small training academy to graduate students through our own training systems. The reality is that if you look at the current convention, new age digital companies are not expected to do all this. However, for us, delivering service is the top priority in whatever we do, which is why we not only have this training academy, but we also have more than 300 of our staff on the field in different cities to ensure we can standardize the facilities and audit them after every three days, to ensure service is extraordinary. If our guests need any service, we are there in person to deliver the service. A good entrepreneur is a good nurturer.

The idea of OYO came about during the phase where I was switching from our old brand Oravel, to our current brand OYO. What was interesting was during this phase, I learnt from many other entrepreneurs that building something new is very important. So we are a unique company solving a local problem and not an emulation of any US company. The reality is that at present 30 other companies outside India are emulating us. Thinking big is an important factor. Initially we used to think that we will have 10 properties, but over time, our aspiration grew - to aim to become one of the world's largest hotel chains. This has brought us to the present scale where we are India's largest and world's 14th largest hotel network today. We have a clear direction to become the world's largest hotel chain especially because of the capabilities we are building.

In India, the last two years have been a great opportunity for nurturing entrepreneurial mind-set. However, there is still a need for the social outlook to change towards entrepreneurs in India. I agree with our Prime Minister who has stated that our country should be a country of entrepreneurs. When people see that and parents hear that, when a kids comes up and says to his parents that I want to be an entrepreneur, it's not that tough anymore for a parent to say that my kid will become an entrepreneur. But people need to understand that building your own business is very hard work. Nowadays, people love the hype and aura associated with Silicon Valley but they are not willing to respect or recognize failed entrepreneurs. This is a wrong mindset. If you don't fail, you don't learn. How many times did Einstein make the bulb prototype before he succeeded? Remember there will be failures and we should celebrate failures. It is also true that we as a country have never done that. The best entrepreneurs have also failed a few times in their lives.

It is now imperative to ensure that reality starts keeping up with the hype that is being created, which means there are real companies, creating real products and globally they are becoming powerhouses

as organizations. This is fuelling the entrepreneurship revolution to the next level. For example, in the US when the first entrepreneurship revolution started with people like Henry Ford, Andrew Carnegie, they generated huge amount of wealth and then invested in new age companies to make USA the country of entrepreneurs. China has similar examples as well. India must become the country that will create relevant entrepreneurs who solve large global problems of the future.

> ***"Policy makers should become enablers for innovation and entrepreneurs"***

It is difficult for policy makers to suggest changes, especially in this sector. Entrepreneurship is dynamic. The world is changing very fast and to keep up with these changes, the policy makers need to become consistent enablers rather than doers. The policy makers should recognize ten things which can be done to open the market and let new people come in and start operating or creating new products. My request to policy makers would be to become enablers for innovation and entrepreneurs. The youth should realise that to reach a certain place and to change the world, it is a hard journey. If you choose to get in there, then become perseverant and hardworking. I have been in this industry for the last four years and what I have seen in this industry is that you need to work hard and persevere to reach a place where you start making an impact on the society and stay focused on that.

In my mind, hospitality is one sector which is waiting to create hundreds and thousands of jobs and clearly so, because of a couple of reasons. We at OYO want to recruit people for our self-run properties as well as franchise-run properties. In both of these, we see employability. The workforce is not skilled, they are not trained enough to do things in a specific manner. This is why we have invested in our training academy to skill people and ensure they reach levels of competency to come and work together. We see incredible passion among them to join and work with us. We have recently signed a partnership agreement with the Skill Ministry as well, to train 30,000 graduates over the next five years and employ them in the hospitality industry.

We cannot run away from the technological revolution. There will soon come a time when we will not need humans during the time of check-ins. It will all be automated. However, when people are replaced with technology, there isn't a zero sum game because hotels have been struggling for a very long time to build a great culture inside their accommodation. We are investing heavily on front office staff, who can be great community managers and not restrict themselves to their daily mundane jobs.

Hospitality, by definition, means welcoming and making people comfortable. Indians are known for their hospitable nature. But today, there is a lack of adequately qualified people for this industry. To solve the problem, we need the government to help in facilitating training and empowering the workforce. Additionally, the industry or the private sector players need to ensure that there are sufficient employment opportunities for skilled people entering workforce. India already generates

smart graduates, but the compensation in hospitality industry is not up to the mark. Thus people start looking out of this sector for better opportunities. We need to make sure that these smart graduates are employed with a good life so that they can further influence others in their network of family and friends. The youth should look at hospitality as a lucrative career option.

The investment in the transition needs to be done by the government and the private sector in collaboration. However, reality is that private sector needs to do more than the government. The government is doing a great job as enablers in the last few years. Talent however still remains one of the biggest concern in the hospitality sector. In tier 3 or tier 4 cities, we have adequate number of people but not enough skills, visibility, understanding of best practices, work ethics and culture. Given that hospitality has a segregated market, technology is the best way to reach out to people. At OYO, all our content is fully digitalized.

There are two important skills which we want in this sector, empathy and soft skills. Earlier, if someone wanted to join the hospitality sector, they had to leave their home, go 300 km away from home for two years for training or college. Whereas in today's time, they can go just 500 meters away from home and learn all this online from a computer. They can probably take an exam on their mobile phone and clear the first level in hospitality. Further, they can take break from their regular work for two hours and undertake the course. Digital education is thus a very big focus for us. We have already started working on this and in next six months, we will build a complete set-up where anyone can come and work with us, to ensure quality of talent is retained and hospitality is seen as the choice of industry to work in the times to come.

In the next three to five years, we plan to target more than a lakh people through our initiatives. We believe this industry is growing at a ferocious pace and we can indeed do something better and on a bigger scale and create large scale employment.

---

*The author is Founder, OYO Rooms*

# Manufacturing jobs: The car industry

*R C Bhargava*

**My Idea**

*The private sector has to win the trust and confidence of their employees and the people at large by visibly demonstrating their commitment to grow their industries, and enable them to compete at a global level. People must believe that the industries are being managed to achieve this national purpose, and not for the benefit of the entrepreneur and his or her family.*

The pace of change of everything has accelerated in India in the 21st century. The percentage of young people below 25 years of age has increased to over 50% - over 60 crore Indians are that young and need to work. The extent of knowledge, and hence aspiration levels, of the young is very different compared to their predecessors of 20 years ago. This is the result of rapid increase in the ownership of cell phones, particularly smart phones, easy access to internet and the low cost of data. The media too has played an important role in spreading awareness of the progress in other parts of the world. The one million additions to the workforce every month want productive work to fulfill their aspirations and also partake in global prosperity. The PM won the 2014 election because the youth believed that he was the only person who could actually deliver on the promise to create jobs. The Government has, accordingly, made growth of manufacturing, and the 'Make in India' platform as its priority objectives. All of us must realize the importance of making this programme a success, because the consequences of not doing so are frightening.

The experience of a few countries with large populations, who have made rapid economic progress after 1950, would be useful in understanding the importance of manufacturing for growth, job creation and prosperity. Japan was the first among the Asian countries to make a national effort to recover from the ravages of the World War, bring prosperity to its people and gain global self-respect by attaining economic strength. The route chosen was to make manufacturing more efficient and competitive compared to any other country. Industry and Government worked in partnership to make this happen, and industrialists managed their enterprises with this objective as their absolute priority. They motivated all employees to share their thinking and working for the national good, through increasing prosperity of their

> ***"The one million additions to the workforce every month want productive work to fulfil their aspirations"***

companies. The success of Japan in this endeavour is well known. Manufacturing at one time reached 34% of the GDP.

Korea followed the example set by Japan, and had an additional goal of equalling or bettering the success levels of the Japanese. Industrialists, in partnership with the Government, made manufacturing activities highly competitive and the share of manufacturing in the GDP reached as much as 31.4%. China was the third country that adopted the route of creating prosperity and jobs through growing the manufacturing sector. It is presently the most competitive manufacturing country in the world - manufacturing at one time was 40.4% of GDP. Can India provide jobs for its millions without making manufacturing globally competitive, and achieving high rates of growth? If there is a way, no one seems to have successfully tried it so far.

However, there are many economists and others who argue that manufacturing, with growing automation, is not the way to create jobs. Figures are cited to show that the manufacturing sector has not added significantly to new job creation in the last many years. This view point arises if we view job creation from manufacturing in a rigidly compartmentalized manner. The reality is that a very large percentage of jobs created in the services sector, excluding the IT services and call centres, arise directly or indirectly as a result of manufacturing activity. These jobs would not exist if the related manufacturing did not take place.

Retailers largely sell products that have undergone some manufacturing process. The higher the demand and sale of goods, the larger is the job creation in this sector. Manufacturing activities also create jobs in the transportation sector, servicing and maintenance of manufactured products, accounting and book keeping, tax related services, banking including consumer loans and so on. The more the manufacturing, the higher the need for jobs in these activities. When assessing the employment created by manufacturing, the correct way would be to consider the jobs created in all sectors required to sell, service, maintain and meet the regulatory requirements of manufacturing. The experiences of Japan, Korea and China cannot just be brushed aside, especially without offering a credible alternative.

There is also a section of policy makers and advisors who advocate the promotion of 'labour intensive' industries in India. Certainly, if an industry can directly generate large employment, and also produce competitive products, that industry must be encouraged. However, in the quest for labour intensive industries, we must not forget that all manufacturing activity has to be promoted in a manner that the products made are globally competitive in quality and price. Only then can they sell in increasing quantities, and drive job creation in manufacturing and downstream of manufacturing. If achieving competitiveness requires automation, we should not shy away from that. Job creation has to be viewed holistically.

The automobile sector has been a very large creator of new jobs in the economy. Almost 50% of the manufacturing activity comprises of automobiles and directly related activities. Besides the direct

employment arising from production of automobiles, and components, the vehicles sold each year combined with the total vehicle population, create a very large number of jobs in the services sector to sell, finance, insure, maintain and meet the regulatory requirements for the vehicles. The number of drivers alone required each year by the currently 3 million cars being sold would be in the region of 750,000. Commercial vehicles create a large demand for drivers and helpers. The extent of automation in the automobile industry is growing and is required to attain competitive quality and costs. Export of cars is also an important objective, partly to create jobs and partly to earn foreign exchange and establish India as a country that can manufacture high quality engineering products.

> ***"A very large percentage of the jobs created in the services sector arise directly or indirectly as a result of manufacturing activity"***

The automobile industry is now entirely in the private sector. Till 1992, Maruti Udyog Limited was a PSU, with Suzuki of Japan having 40% equity. In 1992, the shareholding changed to 50% each held by Government and Suzuki, and by 2007, Government exited the company totally. The industry has grown rapidly in the last 20 years. In 1996-97, passenger vehicle output was about 400,000 units. This number will cross 3 million this year. India is the largest producer of two wheelers, and commercial vehicles provide an essential lifeline to the economy. The component industry has an output of US$ 44 billion, with exports of near US$11 billion.

The growth of the automobile industry leads to the development of many other industries. Steel is a major input required for car production, and the need for making cars lighter, safer and more durable has led to the development of various specialized varieties of steel. The growth of the automobile industry is also accompanied by the growth of the petroleum refining and distribution industry. Large number of jobs are created as a result. The consumer demand for safer, more fuel efficient and cleaner cars is also driving technology development in many areas including rubber, polymers, electronics, fuels and so on.

The close linkage between the growth of manufacturing, and the high generation of employment in the services sector, leads to the need for innovative thinking on the policy front. The bulk of competitive manufacturing will have to be in the private sector, given the global experience with the public sector trying to be competitive. However, the private sector, during the period 1950 to 1991 was not the driver of industrial growth, but was highly regulated and controlled. Even after 1991, Government policies, both at the Centre, and more so in the States, did not recognize the importance of the private sector in accelerating manufacturing and creating jobs. In several areas, industrial activity still gets the lowest priority in allocation of economic resources. Prices of electricity, and priority in supply, is a good example. Regulatory activities have been very extensive, but these have mostly added to the cost of manufacturing, without any real value creation. To an extent, political

considerations have been relevant in perpetuating this attitude towards the private sector. The result, however, is that manufacturing and mining activities have not grown faster and have languished for long at 15-16% of GDP. India cannot remove poverty, have inclusive growth and create jobs unless the attitude toward the private sector changes, and the importance of Government working with that sector to accelerate growth is recognized as a national necessity, and not as a political liability. Manufacturing activity should rise to 35% of the GDP.

To enable Government to change its approach towards the private sector, industrialists and entrepreneurs have to recognize the political realities of India, and the economic and social environment that creates these political compulsions. The private sector has to win the trust and confidence of their employees and the people at large by visibly demonstrating their commitment to grow their industries, and enable them to compete at a global level. People must believe that the industries are being managed to achieve this national purpose, and not for the benefit of the entrepreneur and his or her family. Their life style, salaries and payments from the Company should be appropriate to the Indian social environment. Company operations must be fully transparent and there should be no suspicion of tax evasion and black money generation. If the private sector, and especially the industry leaders, move in this direction, Government will find it easier to support and promote the growth of private enterprises, and to take measures to enhance their competitiveness.

Private industry and entrepreneurs need to think about the consequences of the nation not being able to grow manufacturing fast enough to create jobs for the unemployed youth. There is little doubt that they will stand to lose heavily in such a scenario. Hence, it is in their own interest to do everything possible to make manufacturing globally competitive. Government actions will not be adequate to attain this objective. Top managers have to review their responsibilities. They must create conditions where workers and managers become motivated to contribute to the continuous improvement of all areas of their company. The human resource contribution to achieving competitiveness, and sustaining it over time, is far higher than that of any other factor of production. The Japanese have demonstrated this fact beyond argument. Maruti has shown that with the right framework of policies and top management practices, quality and productivity equal to the best in the world, can be achieved. In the Indian political and social environment, motivating the human being is the most suitable way of creating conditions for the rapid growth of a highly competitive Indian industry. The lead for this has to come from the leaders of private industry.

Along with human resource motivation, perhaps the other vital area of attention by private industry is to pro-actively get involved in upgrading their supply chain, so that their vendors are also of international quality and cost. In most manufacturing industries, the producers of the final products buy fairly high percentages of components and materials from vendors. Unless these vendors are also motivated and encouraged to become globally competitive, the required results will not be forthcoming. Vendors and their OEMs have to work together to achieve this objective. OEMs should help their suppliers to develop the ability to keep improving technology, using the best machines,

tools and fixtures, and employing educated and trained manpower. Vendors who are small and medium scale industries require special attention, because experience shows that the incentives to remain in these categories prevents them from making the required investments to achieve consistent quality, and produce high volumes. Globally relevant companies cannot develop without the suppliers overcoming this handicap. In Japan, the small scale industries have developed many technologies that enable Japan to lead manufacturing competitiveness. India and Japan have very different definitions of what a small scale industry is.

In the vitally important area of manufacturing, India has to find ways of quickly doing what should have been done decades ago. It is a national task of the highest importance. All political parties should unite in implementing the required changes in laws, policies and regulations that are impediments to attaining competitiveness in manufacturing. The Indian voter wants jobs for the youth, and will welcome actions taken for accelerating manufacturing for this purpose.

---

*The author is Chairman, Maruti Suzuki India*

# Creating jobs from farm to fork

*Siraj A Chaudhry*

*My Idea*

*The future of jobs in agriculture sector lies not just at the farm but on how we are able to convert the produce into food and get the food on to the plate.*

Agriculture's share in India's GDP has been on a steady decline but it continues to play a critical role in country's socio-economic fabric. Also, while it is one of the largest employers, contributing to nearly half of total employment in the country, it remains a sub-optimal employer with highest dependency ratio.

The reality of agriculture in India is that average age of farmer is going up and over the years, the interest of youth in this sector has been waning. They do not see this sector as a sector of employment by choice owing to inadequate returns. Several reasons have led to lower remuneration in this sector, including rising input costs, prices received being non-commensurate with the market rates, etc. The prices which a farmer gets for his crop vary from season to season and year to year, resulting in inconsistent income generation. In comparison, wages across various other sectors have gone up. Even the landless labour is not necessarily worse-off, partly due to earnings from MGNREGA, which have gone up over the years. MGNREGA has in-fact reduced migration of labour, as now people have got an earning avenue at their home place itself. This has further aggravated the scarcity of agricultural labour in certain parts of the country and increased the cost of getting labour from outside.

It is indeed an irony that the agriculture sector in India has the highest dependency of population and still continues to face labour shortages. While the latter concern can be mitigated through mechanisation, the bigger concern, however, is to provide alternative employment avenues to the rural youth. Today's youth is highly aspirational and desires better quality of life but has limited means to achieve it. Keeping this in mind, the question arises as to what can be done to enable these youth to meet their aspirations. One way is to create opportunities in the agriculture supply chain,

> ***"Today's youth is highly aspirational and desires better quality of life but has limited means to achieve it"***

which extends right from agricultural production to the food retail. Since food is a mass category, the employment potential linked to it is also vast. This however requires urgent skill development.

The government has taken sincere efforts in promoting skills in the food sector, but practicality is missing. There has been a mismatch between industry expectations and the skill sets being imparted. The main issue is that the Skill India initiative is being seen more of a 'push' rather than a 'pull' by the industry. The key challenge is thus to create demand, which will encourage greater enrolments as well as create greater opportunities for effective utilisation of these skilled personnel.

Agriculture marketing and extension services are still very poor in many parts of the country. Public provision of extension services has not been up to the mark but private sector is increasingly playing an important role in providing various extension services. This is one area where we can engage the rural youth actively by appropriately skilling them.

To skill people across the agricultural supply chain, Cargill has in-fact taken a unique initiative. Cargill has set up a plant in Karnataka and as a part of our CSR, we have enrolled 5000 farmers for improving their current agricultural practices. Cargill does not have any commercial relationship with them and the simple motive is to bring prosperity to that area. The reason behind the success of this initiative is that the farmers have realized that Cargill does not have any underlying interest in this activity. Building trust is the way ahead in terms of all these initiatives.

To take this a step forward, Cargill selects a group of youth from these communities and enrols them in agriculture universities, where they are sent for training for a duration ranging from three to six months, post which they are brought back to their villages. We impart training to rural youth or help them enrol in universities in various areas. This helps in creating quality jobs and providing a positive impact on their productivity and efficiency. We expect this initiative to become self-sustaining in the long term, as these individuals have become ambassadors of this initiative in their communities and villages.

Another example is to engage the women members of rural households. Cargill works towards this cause by helping women set up kitchen gardens at their backyards. This helps in keeping them engaged where they do not have to leave their homes to obtain fresh produce. This not only helps them consume healthy food but also helps in reducing their household expenditure and adding to the household savings. In a way, this is all about improving the eco-system and working conditions. India needs more of such models and initiatives to create similar eco-systems.While private sector can definitely contribute, the role of government in spreading this across country would be extremely important.

If we look back to the period of Green Revolution, it was public extension services along with improved seeds, fertilizers and irrigation which played an important role in increasing productivity and enhancing agricultural development. However, since then, the government's initiatives in

agriculture extension services have dried up. Gradually, these agriculture extension practices have been taken up by the private sector like E-Choupal and Saathi, but these have been limited to areas where corporate sector had its own interest. In essence, if such and other innovative initiatives have to be scaled up across India, these would have to be largely led by the Government and collaborative initiatives could also be explored through PPP model.

*"Food is one thing which can have no dearth of demand and thus there is a huge potential for creating self-employment"*

For agriculture to find value in current times, it needs to be linked to the food industry. The future of jobs in agriculture sector lies not just at the farm, but on how we are able to convert the produce into food and get the food on to the plate. In other words, jobs could be created anywhere in the value chain that connects the producers with the final consumers. Hence, we need to focus on skilling the people so that they can be employed at any part of this huge value chain.

While a lot of efforts are being taken with respect to 'Make in India', which also includes skilling people to produce processed food, what is missing is the linkage with the end consumer. While we may skill a large number of people in food processing, the absorption capacity of industry to employ them will remain limited and a large chunk of these skilled youth would have to consider entrepreneurship. In this process, we will create many entrepreneurs in food industry but their success and sustenance will depend on how effectively they are able to reach the final consumers. E-commerce is one of the ways through which the producer can reach the final consumer bypassing all the intermediaries. There are huge employment opportunities here which can be leveraged through appropriate skilling. For instance, a large number of food start-ups that are being set up need delivery boys. This in turn creates space for skilling local people for becoming drivers, and enables creation of decent livelihood opportunities. We need to take such leaps through vocational training to move ahead in job creation.

There are no big bang solutions for creating employment opportunities in the food sector. Given the consumer base of our country, food is one thing which can have no dearth of demand and thus there is a huge potential for creating self-employment in this sector. Recent concepts such as Food Streets can be a platform in creating large scale employment. However, such concepts will only be successful if the role of food safety and quality control is well designed and in place. If we look holistically at creating employment across the entire food value chain, we have to expand the skill development initiatives beyond the food processing skills. For instance, the sector skill council 'FICSI' has signed an MoU with the Quality Council of India where people are being trained to become inspectors,

testers, who can either get into FSSAI or get accredited to it. Hence, while we encourage one set of people towards self-employment in the food sector, there is a simultaneous nurturing of people who will validate his/her product for quality.

The future of employment in the agriculture sector does not lie in farming, but taking a substantial part of the labour force on the path of the production to selling. This is where the industry and government can come together and create a business model. The direction should be towards skill development, food safety, service delivery, and logistics and all parts of the food value chain to provide much needed mass employment.

---

*The author is Chairman, Cargill India*

# Ensuring growth with sustainable livelihoods

*Y C Deveshwar*

*My Idea*

*A big push to India's food processing sector, which lies at the intersection of agriculture and industry, will be a force multiplier in creating large-scale employment, enhancing farm incomes and combating agri-wastages.*

A few years ago, the London-based Economist rang the alarm bells on what they called the disquieting "arc of unemployment" raging through Europe, Africa and the Middle East to South Asia. Succinctly, this looming catastrophe was referred to as one "where the rich world's recession met the poor world's youth quake". It is today profoundly tragic that the number of young people out of work globally almost equals the population of the United States.

The prospect that millions of youth will face an increasingly uncertain and hopeless future is, to say the least, a disaster of epic proportions. It is now well acknowledged that such disillusioned, despairing and desperate unemployed youth are extremely prone to be drawn into a life of criminal and violent activity or even radicalised by exploitative groups. The risk to civil society is unprecedented. Such instability can have dire consequences on economic growth and future progress. They negate society's advancement and mire the world in conflict and uncertainty. Very recently, a report commissioned by Lloyds has warned that a "pandemic" of global civil unrest could go viral, threatening international stability. The signs are unfortunately already visible in the world-wide uprisings, unrest, terrorist activity, the refugee-crisis, et al.

## The paradox of jobless growth

India's challenges are no less daunting. Home to nearly one-third of the world's poor, almost 300 million people need critical support to move out of poverty and live a life of dignity. Compounding the challenge is the need to find gainful employment for the twelve million youth who join the workforce every year. With just 2-3 million jobs being generated annually, there is a crying need to find newer avenues for

> ***"With just 2-3 million jobs being generated annually, there is a crying need to find newer avenues for sustainable livelihoods"***

sustainable livelihoods. Undoubtedly, the Prime Minister's clarion call to Make in India, together with initiatives like Skill India, Digital India, Jan Dhan Yojana and others, will help create the foundation for scaling up jobs in the future. India's young population, with 75% below 35 years of age, is at once its greatest strength and its toughest challenge. It is only when meaningful livelihood opportunities can be created at scale that the country will be able to reap its rich demographic dividend. The challenge before the Nation, therefore, is not only to achieve sustained higher rates of growth but to ensure that such growth is equitable and can create large scale livelihood opportunities.

That brings us to a paradox and to an issue of utmost importance. Today, India is the 3rd largest economy in the world in PPP terms with consumption expenditure in the domestic market in excess of a trillion dollars. The country has been one of the fastest growing large economies in the world, and has sustained high growth rates for a long period of time. Yet, jobs are woefully inadequate to meet the demands of a burgeoning young population and not commensurate with the growth rates achieved over the years. A closer introspection reveals that one of the crucial reasons for the paradox of jobless growth is the fact that the country is unable to capture the full potential of the value created from economic activities, which escapes overseas to owners of intellectual capital and trademarks. Consequently, despite the increasing spends in the economy, the relatively lower value-capture results in abysmally fewer jobs being created, fueling far-reaching social ramifications.

To my mind, topmost priority needs to be accorded today to ensure that far larger value is captured in the domestic economy so that economic growth can stimulate job creation of a significantly higher order. I will, therefore, take this opportunity to elaborate on a few issues which are mission critical in creating, capturing and retaining value in India.

## Creating, capturing and retaining value in India

In a globalised economy with a liberal trade regime, it is immensely important to build internationally competitive Indian enterprises that own intellectual property assets manifest in higher value-added branded products and services. A substantial proportion of the value created in the domestic market accrues to intellectual property resident in trademarks. Unfortunately, given the paucity of domestically owned intellectual property, there has been an increasing over-dependence over the years on foreign intellectual property to service even the home market. As a consequence, a large part of the value created flows out of the economy to overseas entities on account of charges for the use of their intellectual property resident in patents, trademarks, copyrights, industrial processes, designs and so on. Even in external trade, the country would have retained far more value had its exports comprised branded products and services rather than items predominantly at the commodity-end.

India's billion plus population represents a potentially huge consumption market. With rising per capita income and a growing middle as well as affluent class, there is a substantial growth momentum in the consumption of higher-end value-added products and services. Today, almost all the well-known international players market their brands in India, capturing the dominant part of the

upper-end consumer spend. These range from high-end luxury products, white goods, consumer electronics, computers and branded software to items of daily consumption, including soaps, shampoos, tea, coffee, burgers, diapers, baby food, potato chips and even drinking water. Unfortunately, the share of domestic brands is modest and largely confined to markets characterized by lower income consumer segments with relatively lower value addition. Therefore, every time a foreign-owned brand is consumed, the domestic economy is unable to capture the fullest potential of the value created due to the various outflows to the overseas owners of intellectual property assets.

Many of the international companies operating in India rely, in part or full, on their global supply chains to service the Indian market. Their ready access to well-developed supply chains overseas, facilitated further by lowered import duties, makes international sourcing more attractive. As a result, the country's consumption basket has a large share of imports either as finished products, sub-assemblies or components. Despite the presence of several multinational entities in India, a substantial part of the value created therefore remains outside the country. This contributes to the phenomenon of jobless consumption growth witnessed in recent times.

## Creating intellectual property in India

Ownership of Intellectual Property assets forms a superior basis for sustaining competitive advantage over the long-run, ensuring that larger value is retained in the economy. It is my firm belief that tomorrow's world will belong to those who create, own and nurture intellectual property. Ownership of intellectual capital will be the springboard that will propel India from a developing economy to a developed nation. It will transform the country from a mere provider of labour, commodities and relatively lower value added goods and services to a position of leadership in innovation. A long-term sustainable solution would be to build India's innovative capacity to develop and own intellectual property in the country to reduce the outflows overseas. This is where the corporate sector has a crucial role to play. By investing in innovation and cutting-edge R&D, developing world-class brands for the domestic and external markets, Indian companies could enable significant value capture in the economy, stemming the revenue flows out of the country.

## Creating world-class Indian brands

Brands are a powerful manifestation of intellectual property created over time. World-class brands lend huge intangible value to products and services, enabling them to command a premium and loyalty from consumers. Moreover, successful brands reflect the innovative capacity of the countries of their origin. When a country's institutions build world-class brands, they enrich their economies. A successful global brand is a badge of honour for the country it belongs to, and a sustained source of wealth creation.

The mission to create world-class brands in India must, therefore, assume the fervour of a national movement. Such world-class Indian brands will help create, capture and retain larger value for the economy. I have confidence that Indian enterprises truly have the mettle to create world-class Indian

brands. Not very long ago, countries like Japan and Korea had a similar dream amidst every adversity. Today, their brands have conquered the world and earned global respect. Admittedly, building winning brands is not an easy task. Successful global corporations have been steadfast in nurturing their brands and remaining well ahead on the learning curve. Therefore, the challenge of building brands in competition with such established players is no mean task. The countries that have accomplished this seemingly impossible mission have done so through close collaboration between the governments and their companies over the long haul.

> ***"Tomorrow's world will belong to those who create, own and nurture intellectual property"***

In addition to spurring investments and growth, such brands can become a force multiplier for inclusive and sustainable growth. By serving as market anchors, these brands can lend relative stability to drive the competitiveness of the entire value chain of which they are a part. This in turn can further empower the weakest in the economic value chain and generate considerable sustainable livelihood opportunities, so critical for our country.

### The potential in employment-intensive sectors of food & wood

The Government has rightly identified the need to promote sectors with high employment intensity. It would be important here to highlight the potential in two specific sectors relating to the rural economy, namely food processing and agro-forestry where supportive policies can significantly contribute to job creation, enhance rural incomes, help manage food inflation and promote sustainable agriculture.

Today, only 10% of India's agri-produce, including milk, is processed. This is as low as 2% for fruits and vegetables, compared to over 70% in the Philippines, Brazil and Malaysia. Colossal agri-wastage not only poses a constraint on farmer income, but also fuels supply-side shortages, leading to food inflation. A big push to India's food processing sector, which lies at the intersection of agriculture and industry, will be a force multiplier in creating large-scale employment, enhancing farm incomes and combating agri-wastages. Unfortunately, even though India produces enough food, high prices of processed food restrict demand and are a key constraint to the growth of this sector. This is primarily due to the cascading effect of taxation along the value chain. Consequently, there is lower demand for processed food leading to low investments in this very important sector. A paradigm change can take place if demand for processed food products is substantially increased by lowering prices through a zero-tax regime on this industry. This will help in paring down prices, enhancing demand, thereby making it attractive for investment and increasing employment opportunities across the value-chain.

Apart from food processing, another rural-based segment where immense potential exists, is the relatively untapped agro-forestry sector that can effectively address the traditional conflict over land-use for food, fuel, fodder, fibre and forests. By synergising tree-growing with crop production,

both food and wood security can be ensured, thereby contributing to the conservation of precious natural resources. Farmers can get multiple benefits by using their scarce land resources to maximise returns through both agriculture and tree-planting, thus considerably enhancing their incomes.

India has significant imports of wood and wood-based products such as furniture, construction timber, pulp and paper, packaging, plywood and so on. Many of these imports attract duties as low as nil to 5%. The tariff policy, as it stands today, makes import of wood more attractive than growing trees in India. This prevents livelihood creation in the country and "exports" jobs to countries that grow trees and sell wood-based products. Conducive policies ought to be crafted to boost India's natural advantage in agro-forestry and promote employment-generating wood-based industries. Agro-forestry is also an important source of carbon-neutral biomass energy which can substantially reduce dependence on fossil fuels. It would be worthwhile to mention that ITC's Afforestation Programme, that today covers 5,00,000 acres of plantations by tribals and poor farmers, have so far generated over 100 million-person days of employment besides creating a massive green cover to combat climate change. It also provides fibre for several paper and pulp industry players through renewable forestry, saving foreign exchange, retaining value in the country and creating jobs.

## Responsible competitiveness for sustainable & inclusive growth

Rapid growth by itself may not ensure social equity or the generation of large-scale sustainable livelihoods. A new paradigm is called for today to spur extreme competitiveness of the economy, whilst ensuring that the environment is nourished and large-scale sustainable livelihoods are created – an approach I call “Responsible Competitiveness”. Making societal value creation a core purpose of business spurs innovation that can contribute substantially to enriching economic, environmental and social capital. ITC's two-decade journey towards being a global sustainability exemplar reinforces this belief. A focus on responsible competitiveness, inspired by ITC's vision to serve larger national priorities, is not only evident today in the range, scale and scope of its businesses but also in the creation of 6 million livelihoods whilst being the only company in the world to be carbon, water and solid-waste recycling positive. It is heartening that progressive companies are today increasingly embracing a strategy of sustainable and inclusive growth. This indeed augurs well for the future.

We stand today at a moment in history when India is redefining its future with self-confidence in its capabilities and potential. I am convinced that a mission and patriotic fervor to create, nurture and support globally competitive Indian enterprises who are passionately driven by the vision to sub-serve larger national priorities can transform the country's future. It is time that the collective energies of the nation are harnessed to build such world-class Indian enterprises of tomorrow. It is then that India's growth story will create much more value in the economy and also ensure growth with equity and employment. In that lies the hope for millions of Indian youth, and their collective dreams and aspirations for a better future.

---

*The author is Chairman, ITC Limited*

# Water and economy of jobs in farm sector

*Anil Jain*

*My Idea*

*A major evolution in agriculture sector is brewing. Focus has to be on entire value chain - from soil, water & energy, planting materials, fertilizer, crop advisory, market access, food processing to a digital connect.*

India is on high growth trajectory. Initiatives like Make in India, 100 smart cities, massive infrastructure development, har khet mei paani, etc are meant to create millions of jobs and ensure all inclusive growth. Rate of employment or unemployment is an indicator of the health of economy and GDP growth of a country. In USA and other developed countries economic data released includes increase or fall in numbers unemployed i.e. jobs created or lost, which is an indicator of the health of their economy. Rising unemployment is one of the most pressing issues in any country as massive unemployment leads to civil unrest and law & order problems.

Traditionally the word 'job' in India was taken as 'job in a factory or a government office'. Over the years, we have seen new avenues open in services sector, numbers of which have overtaken the traditional jobs in government or manufacturing sector. Nowadays, most people go to college and university to study a field they might like, in order to have a good and enjoyable job. However, money is still an important factor in job selection, and several people argue that earning money is more important than an enjoyable job.

We are living in an era of exponential technology of scale that we now call it age of disruptive technology. Advancement in technology is so fast paced that the time lapse between newer technologies is getting compressed as never before.

Many leaders, therefore, apprehend that disruptive technology will cause loss of jobs, to begin with, in developed countries. The Martin School at Oxford University predicts that in the next 20 years, computers, artificial intelligence and robotics will automate and replace over 48% of jobs in the United States. People like Ray Kurzweil, co-founder of Singularity University and venture capitalist Marc Andreessen believe that technology has always created more jobs, and this will be no different in the future. While some jobs are eliminated, many more (that we

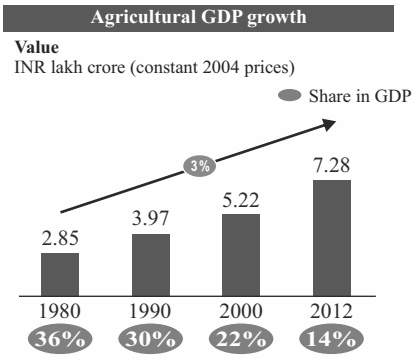
> ***"While some jobs are eliminated, many more that we can't even currently imagine will be created"***

can't even currently imagine) will be created. Other technology leaders, from Richard Branson to Larry Page, believe that society will adapt, perhaps with a shorter workweek and state-supported guaranteed basic income. If so, will society adapt quickly? Slowly? Never?

India has so far reaped the benefits of advancement in science and technology. It is because of science that first green revolution has made India from importer to exporter of food. Some 20 years back, bank workers went on strike against the move of the government to computerize banking transactions. Consequent growth in reach and portfolio of banking sector has negated the argument that computerization will result in loss of jobs. Technology has helped create millions of jobs in IT, telecom, BPO and health sectors (inconceivable in 1980s) and allowed Indian entrepreneurs to serve businesses and customers outside the country in vast numbers.

While there has been unprecedented development in service sector in past two decades, manufacturing and agriculture sectors have been affected with lower growth rates and their share of GDP has constantly declined. Average annual agricultural GDP has grown at 3% in India in past three decades but its share of GDP has reduced from 36% in 1980 to only14% in 2012.

**Figure 1: Agricultural GDP has grown at 3% annually over the last three decades**

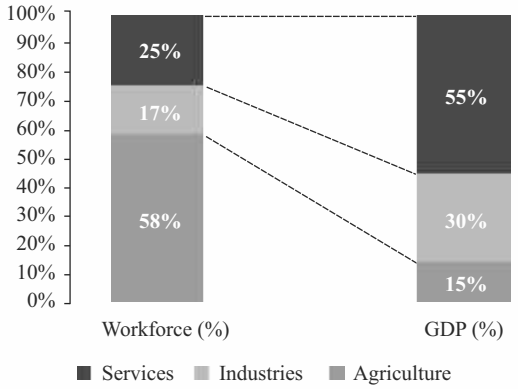



*Source: Central Statistics Office Data*

'Make in India' initiative is expected to spur growth in manufacturing sector, all across, including newer initiatives like defense sector. However, demand of goods and services will not catch up with growth in manufacturing sector unless the single largest employer in India, i.e. agriculture sector, grows at faster pace.

It is alarming to note (figure 2) that share of GDP (from 58% population engaged in agriculture) shrunk to merely 15% in 2011. It is therefore critically important that agriculture sector grows at 6-8% annually for economy to grow in double digit. States like Gujarat, MP and Chhattisgarh have shown the way by registering 8-12% growth in agriculture sector and it is possible for other states to emulate.

**Figure 2: Workforce and GDP contribution by sector**




*Source: Census 2011 (population); VMW Analytics Services data (state-wise GDP)*

If 58% of country's population contributes to only 15% share of GDP, it clearly indicates a state of unemployment and underemployment in rural India. It is not surprising to see large-scale migration of unemployed from rural India to cities. One of the biggest concerns in India today is that young generation from rural India is no longer interested in farming due to low returns, risks involved and uncertain market conditions. Small land holdings, frequent droughts, high input costs and uncertain market conditions are now discouraging youth to retain farming as a livelihood. Besides, lack of amenities, basic facilities like water, power, health services and above all lack of job opportunities is attracting youth to cities. This is not only choking the urban infrastructure with over population, slums but also causing social problems in the cities. It is on a positive note that increased farm productivity (to double due to 'Har Khet Ko Pani') can increase availability of surplus agricultural produce for primary and secondary processing. Every ton of agricultural produce processed can generate direct employment to 19 skilled workers and indirect employment to 57 workers.

However, increasing farm productivity alone is not enough. Access to market and doubling farm income can really generate significant amount of rural employment across complete agricultural value chain including byproduct utilization, service providers for forward and backward linkages, financial services, warehousing, secondary agriculture, packaging industry, transport, export establishments, movement of city officials to sites of production, hotel and catering industry and many more. It is a chain reaction of development and can generate a great amount of direct and indirect employment in rural India.

Therefore, in order to spur growth in agriculture sector Prime Minister Narendra Modi has launched initiatives like *Pradhan Mantri Krishi Sinchai Yojna, Pradhan Mantri Gram Sadak Yojna, Pradhan Mantri Fasal Bima Yojna*, etc. There is now a paradigm shift from higher farm production based targets to higher income to farmers based target under 'doubling the farmers' income by 2022.

The mosaic of development and growth of agricultural economy in India is very uneven. Large scale migration of farm labour takes place from underdeveloped to agriculturally developed states to seek employment during planting and harvesting operations each year. Higher economic growth means higher job opportunities. Access to water, energy, better seeds & planting materials, fertilizers, market, primary and secondary food processing and institutional finance are key drivers to growth in economy in agriculture. Skill development and crop advisory services backed by an assurance of minimum procurement/market price and risk mitigation from vagaries of nature through crop insurance would further assist in creating sustainable growth in this sector. Making agriculture profession more remunerative will attract youth in this profession. If food processing is considered an extension of agriculture, then the agriculture activity will get a status which will make this profession more glamourous.

Out of 142 million ha of cultivable area in India, less than half is under irrigation and the rest is rain fed. While we are able to produce enough of wheat, rice, coarse cereals, sugar, cotton, etc, we have to import huge quantities of edible oils and pulses. It is, therefore, very important to enhance area under pulse and oil seeds in the country to be self sufficient in our needs. We have to bring more area under irrigation to meet our rising demand for food and nutrition.

## Water & energy

For political reasons, water for irrigation and electricity for pump sets are supplied to farmers almost free or at highly subsidized rates in most states thus leading to wastage in some areas and acute shortage in other areas. Frequent droughts in water stress areas have added to the misery. Therefore, judicious use of water through micro irrigation systems like sprinkler and drip irrigation systems is the solution to irrigate larger area with same quantity of water. Calibrated application of fertilizers and micro nutrients with irrigation through micro irrigation systems like drip irrigation results in exponential increase in crop yield by 50-300% and improvement in quality of produce. Table below gives some of the published data.

**Results- a win situation**

| Crop | Yield (MT/ha) | | | (in%) | (in%) |
|---|---|---|---|---|---|
| | Conventional | Drip | %Yield increase | Water savings | Increase in water use efficiency |
| Banana | 57.5 | 87.5 | 52 | 45 | 176 |
| Grapes | 26.4 | 32.5 | 23 | 48 | 136 |
| Sweet Lime | 100 | 150.0 | 50 | 61 | 289 |
| Pomegranate | 56.0 | 109.0 | 98 | 45 | 167 |
| Tomato | 32.0 | 48.0 | 50 | 31 | 119 |
| Water Melon | 24.0 | 45.0 | 88 | 36 | 196 |
| Chilies | 4.2 | 6.1 | 44 | 63 | 291 |
| Sugarcane | 128.0 | 170 | 33 | 56 | 204 |

Food security | Water security | Energy security

There is a direct nexus between water and jobs. Successive years of drought in California has forced more than 30% or farmers to leave their farms uncultivated. The economic activity related with farming and jobs to labour have been badly affected as can be seen from signboards placed along highway, saying "No Water, No Jobs".




India imported 15.57 million tons of edible oil at cost of USD 10.49 billion and 5.79 million tones of pulses at cost of USD 3.79 billion. Import bill of these two items is in excess of Rs 1,00,000 crores, which is a huge economic activity lost by the country. Imagine the number of jobs created in growing and domestic processing of these two items alone. I leave it to economists to calculate the number of jobs and the impact on economy it would create.

Proven results of use of drip irrigation system on pulses and oilseeds have confirmed increase in yield by 50% or more while using less water. It will be possible to reduce imports of pulses and edible oils by creating farm storage of water and using the same with drip irrigation to bring additional area under these two crops.

## Solar energy

In most parts of the country, grid supply to farm sector is erratic and unreliable. Free power or highly subsidized energy rates to farm sector are the root cause of this problem. Infrastructure and generation equipment are outdated, inadequate and inefficient. Farmers having water cannot irrigate their fields or have to resort to expensive diesel pump sets. Use of solar pump sets, solar mini-grids and solar driers in rural India must be encouraged.

Replacing conventional energy with renewable energy is a part of COP21 agreement and International Solar Alliance to which India is a signatory. Solar energy will offer huge job opportunities in rural India. Global financial community has estimated an investment of more than

USD 8.4 trillion in renewable energy, (mostly solar), by 2040. This will result in huge economic activities and job creation opportunities which India must seize. Countries like China, USA and Germany etc. are already having a head start and our Prime Minister has taken up this task on a priority basis.

> ***"Economic development and sustainable job creation will be driven by technology, R&D and innovation"***

## Food processing

It is estimated that we waste more than 20% of fruits and vegetables due to lack of infrastructure and adequate food processing units in the country. Creation of pack houses, cold chain and unhindered access to market will prevent the wastage, augment farm income and create more jobs in this value chain.

## Research, development and innovation

Economic development and sustainable job creation will be driven by technology, R&D and innovation. Jobs will have to be created by *'Creative*' individuals who are constantly creating something new, be it a process, be it a product or be it a combination of the two. They will then sell these through some sort of a platform created for such a process or product. This argument is based on economic competitiveness. If a company was forced to employ more workers to produce the same amount of goods, then its wage bill would rise and its products might become more expensive and less competitive compared to companies with longer working weeks. Same stands for Indian farm sector which is already under threat from developed countries under WTO. We must create an environment where we do not have to look to others for technology. Adoption of science and technology combined with innovation will make Indian agriculture more competitive in a globalized environment.

## Skill development

New emerging technologies make it necessary to promote skill development. Digital connect with ITC, remote sensing will help farmers to adopt new methods to achieve higher income. Results of mobile phone technology in farm sector are already visible in many parts of the country.

A major evolution in agriculture sector is brewing. There are several success stories and we need to prepare ourselves to make the mosaic more even and widespread. Solution lies in covering the entire value chain from soil, water & energy, planting materials, fertilizer, crop advisory, market access, food processing to a digital connect. Focus has shifted from higher farm production to 'doubling the farmer income by 2022' initiative of Prime Minister Modi.

At Jain Irrigation Systems Ltd., our focus has been to create and connect various businesses of a value chain that will enable farmer to produce more and earn more. Over the years we have developed new verticals like micro irrigation, solar energy and bio energy, tissue culture of many fruits and vegetable, agronomical/crop advisory service, processing of mangoes, onions and host of other crops and have connected these verticals to offer 'one stop shop' to small and marginal farmers in the country. Acquisition of businesses overseas has helped us to make available best of technology, products and services to Indian farmers. We have been able to impact more than 5 million Indian farmers by helping them to earn more and create newer jobs in rural India, in particular.

---

*The author is Vice Chairman and Managing Director, Jain Irrigation Systems*

# Reform education and labour laws

*Habil Khorakiwala*

*My Idea*

*The present day scenario calls for the next generation of reforms, especially focused on the labour markets and the education sector.*

One of the biggest challenges facing Indian economy is that of job creation and a holistic approach is required to address this issue. Every year, nearly 13-15 million youth enter the working age group, seeking appropriate earning opportunities. Additionally, agriculture sector that supports nearly half of country's population, cannot absorb more people. Hence, jobs would have to be created in non-agricultural sector.

Another key concern relates to employability. With the rapid changes in technology and movement towards digitalized economy, combined with a decline in their costs, Indian manufacturing is increasingly shifting from traditional, labour intensive to that of modern, digital economy. It is important for individuals to keep abreast with the latest technology and upgrade the skills to remain employable. Addressing the issue of employability requires significant policy initiatives. The efforts of the Government in this regard, especially in the form of initiatives like Skill India, Make in India, are indeed commendable. Nevertheless, the task at hand is so daunting that much greater efforts and reform measures are necessary.

To give a historical perspective, the reforms carried out in 1991 focused on expanding the industrial base by abolishing industrial licensing, removing import controls, etc. I believe, the present day scenario calls for the next generation of reforms, especially focused on the labour markets and the education sector.

**Reforms: Need of the hour**

**Education reforms**: There must be a drastic overhaul of the prevailing education system. We need to revisit all the rules, regulations in the education sector especially the manner in which universities are being managed, designing of the curriculum, giving degrees,

> ***"The whole approach (towards Universities) needs to be reworked from control centric towards outcome based approach"***

amongst others. To meet the changing dynamics of the population's requirement, the Government needs to ensure quality education, innovation and research. We need to identify the knowledge and the skills which are needed today to generate decent jobs going forward.

> ***"The way we talk about electrical connectivity, healthcare access and availability is also a necessity"***

For example, in the pharmaceutical sector, sales and marketing form a very critical part of our business. However, at present, I have hardly come across any standard program/course in the education space which caters to these specific areas. The academia-industry interactions need to be encouraged to facilitate meaningful collaborations. Mechanisms need to be developed to incentivise organizations to contribute to research-based activities at Universities.

There is a need to grant autonomy to best-in-class institutions, public or private, to devise their own mechanisms to recruit faculty. Ensure active participation of the industry in encouraging industry professionals to accept faculty positions (e.g., by offering sabbaticals, incentives such as high weightage to a teaching stint for career enhancement, etc.). The centralized control of universities by the government should be done away with. The whole approach needs to be reworked from control-centric towards outcome based approach. Greater autonomy should also be provided in the use of funds, while ensuring greater responsibility in the effective utilization of those funds.

Moreover, as the economic profile of the country is changing, we should focus more on increasing the role of digitalization in the education sector. The country should aim at establishing world class institutions and could also set up an expert body to understand the best practices prevailing globally and further adapt them according to our requirement. I personally believe this is the kind of education reforms the country needs at present.

**Labour reforms**: If the country needs to create quality jobs, it needs to ensure a minimalist labour regime in the country. Too many labour laws both in Central and State government have resulted in many bottlenecks, which has affected industry's growth and investment. For example the growth of SMEs is being mainly constrained due to large number of regressive laws, which needs to be addressed soon enough to ensure growth in the manufacturing sector.

Labour reforms must be framed in such a manner that it ensures the ease of doing business and simultaneously leads to jobs creation. India's labour laws are extremely rigid and discourage industrial employers to hire. Rather, it encourages contractual labour without social security benefits. The need is to have a modern labour law that encourages employers to keep more workers in formal roles, with work-linked wages and social security benefits. Besides, the laws should also focus on easing the compliance burden on small and medium enterprises. Some steps have been taken in this direction with the introduction of unified labour portal. However, a lot more needs to be done.

## Road ahead

The government along with the industry needs to frame a holistic policy identifying the sectors that have high job potential like healthcare, tourism as well as MSMEs. The Government should involve more industry people in sector specific areas to mainstream their efforts and also get industry perspective on job creation.

For example, the Pharmaceutical sector, which is growing at around 15-20% per annum has a potential to create quality jobs in our economy. As per FICCI estimates, around 2.5 million people are currently employed by the life-sciences industry (including chemists, stockists, etc.) and with growth projected to continue at around 20% per annum, the sector will create several jobs in pharma manufacturing, sales and marketing as well as pharma R&D. There have been a number of major scientific and technological advances, coupled with socio-demographic changes that have revived the job prospects in the pharma industry. In areas like sales and marketing, there is a tremendous need for skilled workforce in our business. High burden of disease, good economic growth leading to higher disposable incomes, improvements in healthcare infrastructure and improved healthcare financing will all drive the job prospects in this sector. As per Life Sciences Sector Skill Council and KPMG's Skill Gap study, the industry is expected to create 1.31 million new jobs between 2015 and 2024.

In addition, healthcare sector has a huge potential for expansion in rural sector, where it is highly under-penetrated. At present more than 50% of the villages in India do not have any pharmacy shop and are being served largely through medical vans. The way we talk about electrical connectivity, healthcare access and availability is also a necessity. To ensure deeper penetration, we need to create many healthcare practitioners, which is one of the biggest challenge given the current system of medical education. We may also need to rethink the concept of minimum education degree for practicing medicine. For instance, create an acceptable qualification below the minimum MBBS degree – especially to serve the needs of rural India.

To sum up, a holistic approach is needed to address the issue of a large number of poorly educated labour force and the skills mismatch prevailing at present. Once education reforms are introduced and implemented, it will be revolutionary and will have a long lasting impact on the future growth and development of the country.

---

*The author is Chairman, Wockhardt*

# Green jobs in India

*Naina Lal Kidwai*

*My Idea*

*The opportunity around the economy of jobs in the sanitation sector is immense and yet to be tapped.*

India is keen to attempt to work towards a low carbon emission pathway while simultaneously endeavouring to meet all the developmental challenges. The Intended Nationally Determined Contribution (INDC) is taking forward the Prime Minister's vision of a sustainable lifestyle and climate justice to protect the poor and vulnerable from adverse impacts of climate change. India's INDC centres around its policies and programmes on promotion of clean energy, especially renewable energy, enhancement of energy efficiency, development of less carbon intensive and resilient urban centres, promotion of waste to wealth, safe, smart and sustainable green transportation network, abatement of pollution and India's efforts to enhance carbon sink through creation of forest and tree cover. India, at COP 21 in Paris, declared a voluntary goal of reducing the emissions intensity of its GDP by 33–35%, over 2005 levels by 2030. India has adopted several ambitious measures for clean and renewable energy, energy efficiency in various sectors of industries, achieving lower emission intensity in the automobile and transport sector, non-fossil based electricity generation and building sector based on energy conservation. Thrust on Renewable Energy, Promotion of Clean Energy, Enhancing Energy Efficiency, Developing Climate resilient Urban Centres and Sustainable Green Transport Network are some of the measures for achieving this goal.

The Indian INDC brings a huge responsibility on the country and equal opportunities before green business and poses skilled manpower requirement towards creation of a **Green Economy**. The Green Economy is no longer an aspirational phrase but a compelling way of sustainable living, driven by, widely accepted, citizens' concerns over Environment, Climate Change, Water and Waste and having an articulated road map, in the form of INDC's that form part of the Paris Agreement.

**Green jobs** are jobs that contribute to preserve or restore the environment, be they in traditional sectors such as manufacturing and construction, or in new, emerging green

> ***"Skill development and job creation in the sanitation sector must go hand in hand"***

sectors such as renewable energy and energy efficiency or services such as audit and rating of green activities.

At the enterprise level, green jobs can produce goods or provide services that benefit the environment, for example green buildings or clean transportation. However, these green outputs (products and services) are not always based on green production processes and technologies. Therefore, green jobs can also be distinguished by their contribution to more environmentally friendly processes. For example, green jobs can reduce water consumption or improve recycling systems. Yet, green jobs defined through production processes do not necessarily produce environmental goods or services. Green jobs are central to sustainable development and respond to the global challenges of environmental protection, economic development and social inclusion. Greening of enterprises, workplace practices and the labour market as a whole can be achieved engaging governments, workers and employers as active agents of change. These efforts create employment opportunities, enhance resource efficiency and build low-carbon sustainable societies.

The Green Jobs scope covers the entire gamut of "Green Businesses", viz. *Renewable Energy, Energy Storage, Green Construction, Green Transportation, Carbon Sinks, Solid Waste Management, Water Management & E-Waste Management*, and hence would have pan India impact. Green Businesses would encompass all forms of Renewable Electricity/ Fuels, Municipal/ Farm Waste & Urban/ Rural Water Management, Green Construction, Green Transport and Carbon Sinks.

Highlighting the job creation opportunities that a scaled-up clean energy market offers in India, analysis by the Natural Resources Defense Council (NRDC) and the Council on Energy, Environment and Water (CEEW) estimates that solar photovoltaic (PV) projects built in India between 2011 and 2014 created approximately 24,000 full-time equivalent (FTE) jobs—solely from commissioned projects currently producing electricity. The wind sector has created about 45,000 FTE jobs so far, according to government estimates. Despite limited data, solar and wind renewable energy is estimated to have created nearly 70,000 FTE jobs in India so far. If India achieves its target of 100 gigawatts (GW) of installed solar energy by 2022, as many as one million FTE jobs could be created. Approximately 183,500 FTE jobs would be generated if India were to reach its target of installing 60 GW of wind energy capacity by 2022. Looking ahead, solar and wind companies in India can support the clean energy market by reporting their projects' job creation numbers.

These days there is also a renewed buzz and energy around the sanitation sector in India. Undoubtedly, the *Swachh Bharat Mission (SBM)* has catalysed the conversation around the issue, right from the streets to the boardrooms of corporate India. Through platforms like the *India Sanitation Coalition* (ISC), discussions on the questions of financing, corporate engagement, technology solutions and the need to address sanitation across the value chain of Build-Use-Maintain-Treat (BUMT), have been brought to the forefront. However, what is missing is the conversation around the economy of jobs, as it relates to the sanitation sector. That is, when talking about the supply side, there is a need to

deliberate on not just infrastructure creation but also job creation. In order to achieve the end goal of sustainable sanitation that includes Open Defecation Free (ODF) ++ beyond 2019, the creation of a workforce to support this agenda is critical. This renewed buzz in the sector should therefore be used as an opportunity to shine light on the need for a workforce to support the sustainable sanitation agenda as well as an opportunity for employment generation in the country.

Skill development and job creation in the sanitation sector must go hand in hand. With the massive scale of toilet construction underway across the country, the training and certification of existing masons and plumbers is critical to ensure that these toilets that are being built are of the highest standard, technologically appropriate and sustainable over a long period of time. In light of this, there are already certain corporates that have identified the need to create a skilled manpower for sustainable sanitation. One such initiative is the Kohler Plumbing Academy. It offers an excellent example of corporates working towards creating a shared value wherein social and business concerns are addressed. Kohler Plumbing Academy was created to address the challenges of meeting the demand-supply gap. It strives to train more plumbers and meet that demand through a structured professional education with the vision that it will create social entrepreneurs who will further facilitate employment through training across India. It is interesting to note that the programme also focused on promoting plumbing as a glorified job, to instill a sense of pride in the target group. Simultaneously, they also created opportunities for the trained workforce to be absorbed by the industry.

The National Skill Development Corporation (NSDC) is a Public-Private-Partnership in India, set up in 2009. Its primary objective is towards enhancing, supporting and coordinating private sector initiatives for skill development. NSDC aims to skill/ up-skill 150 million people in India by 2022, mainly through private sector initiatives and providing viability gap funding. It works through the formation of Sector Skill Councils (SSCs) which are national partnership organizations bringing together all the stakeholders – industry, labour and the academia for the purpose of workforce development for particular industry sectors. Studies conducted by the Skills Council of Green Jobs indicate that 65 million jobs will need to be created by 2030. Interestingly, the largest potential being in sectors of Waste Management & Water Management, each of which constitute 30% of the forecast for total jobs. Green Construction would constitute 17% and Green Transport about 12% of the forecast for total jobs. Renewable Energy and Carbon Sinks would constitute the balance 11% of the forecast for total jobs. It is, hence, necessary to adopt a holistic perspective towards the Green Economy, with the circular economy being an embedded principle.

Skilling for Green Jobs has the advantage that there are few legacy issues to address, hence, the focus can be on forecasting evolution in Green businesses, which have exponential growth potential. Growth driven by rapid advancements in Solar/ Storage & Bio-Chemical/ Thermo-Chemical Technologies, as well as in the, now, all pervasive impact of Digital Technology. These trends facilitate adoption of a "Distributed Architecture'' for production & consumption of products and services that are constituents of 'Green Economy'.

Some examples of sectors where skill development would be required are as follows:

> ***"Sanitation industry in India is sized at about INR 5000 crores and needs 3,00,000 trained and qualified plumbers"***

In the green buildings sector, it is important that future green building programmes and projects are established with strategies to address skills issues, including appropriate training components. The importance of labour is particularly apparent in retrofitting of existing buildings, where labour costs make up a very large proportion of the total costs (often well over 50%, in the case of wall insulation). In this situation, there are clear economic benefits in maximising labour productivity and eliminating the need to replace sub-standard work. Labour productivity and quality of work are both related closely to skills quality.

In the green transport sector, the shift from a diesel-based mass transport system to CNG involves engine modifications, and requires an increase in two types of employment: filling station attendants and mechanics. In India, currently the skills gap is more for mechanics, with a shortage of authorized service centres. Building technical capacity will be essential. The demand for bio-fuel and bio CNG trained mechanics will rise dramatically, as will the need for quality training institutions. In the absence of formal training, non-formal training arrangements are evident, where mechanics trained in diesel engines pick up the knowledge relating to CNG engines through on-the-job training as they work alongside formally trained mechanics.

This is a huge opportunity that the sanitation sector must leverage. At present, there is no separate Sector Skill Council (SSC) looking at sanitation. The two Sector Skill Councils which are working on sanitation related job roles are the Construction SSC and Plumbing SSC. What we need going forward is to leverage the various platforms built around skill development to bring the conversation around the economy of jobs in the sanitation sector to the forefront. This includes platforms like the *Pradhan Mantri Kaushal Vikas Yojana* that was launched just about a year ago with the aim of giving as many as 2.4 million young Indians industry-relevant training with an elaborate certification scheme. The target for skilling is also aligned to demand from other flagship programmes launched such as the Swachh Bharat Mission.

The ISC's core philosophy is around Build-Use-Maintain-Treat. These are the four steps towards sustainable sanitation, representative of the entire value chain. The potential of creating livelihood avenues and entry points at each step are tremendous. For example, the waste management stream of the sustainable sanitation value chain has a great potential of generating highly specific skilled jobs. The process of scientific waste management requires skilled and trained manpower to handle various sub-activities such as waste collection and transportation, recycling, treatment, and disposal. Such opportunities need to be brought to the forefront, formalised and leveraged. Furthermore, according to corporates like Kohler, the sanitation industry in India is sized at about INR 5,000 crores and needs

approximately 3,00,000 trained and qualified plumbers. The need is growing at a rate of 12% every year. But the current plumber strength is less than half the need from the industry. Such insights and practical knowledge can only be brought to the surface by bringing together multiple stakeholders like corporates, implementation partners and multiple Ministries within the Government to discuss and deliberate on a way forward.

At the ISC, we believe that the opportunity around the economy of jobs in the sanitation sector is immense and yet to be tapped. India has scores of unemployed youth, educated yet unemployed due to the absence of any professional qualification or vocational training. To move forward, the ISC is working to spur the discussion around job creation and economic models in the sector, leveraging skill development platforms as well as the start up wave engulfing India. In order to ensure sustainability, there is a dire need to address the issue of the economy of jobs in the sanitation sector to support the overall agenda to make India ODF by 2019 and beyond.

Therefore, creation of a skilled workforce is absolutely essential for the Green Economy. Educational Institutions have to collaborate with the Government as well as Industry to develop course curricula with specific needs to address such issues. Vocational courses in such aspects may also help a great deal. Numerous Universities in the country now offer courses on Environmental Studies, Environmental Management, Conservation Biology, Natural Resources Management, Power Management, etc. but specific skill sets need to be developed to address technical fields like transportation, construction, waste and water facilities designing, etc. A sound academic base of environmental professionals in the country along with right opportunities in the green sector will lead to our country's sustainable growth.

---

*The author is Chair – FICCI's Sustainability Council; Chair – FICCI India Sanitation Council*

# Weaving the story of jobs

*Sanjay S Lalbhai*

*My Idea*

*India can be the next textile manufacturing and export powerhouse through the right mix of reforms and investments, which can have a multiplier effect on the economic and social well-being through employment generation.*

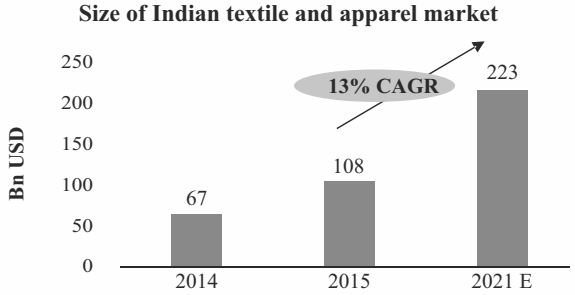
## Heritage and outlook of the Indian textile industry

India holds a special place in the global textile map - our textile heritage dates back to thousands of years to the period of Indus Valley Civilization. The diversity of traditional fibers, dyes and the intricate weaving designs have been attracting buyers from all over the world for centuries. Textiles also has a great cultural significance owing to our independence movement - charkha or the spinning wheel was a symbol of self-reliance and prosperity in villages.

Currently, the country accounts for 17.5% of global textiles and is the second largest exporter of textiles, after China. We are also the second largest producer of both cotton and silk in the world, behind only China. The industry accounts for 10-12% of India's exports and contributes 6% to the country's total GDP.

Apparel and textile industry has historically played a great role in creating employment in India. It is the second largest employer in the country and has helped to absorb excess labour from agriculture. Around 49 million people are working in textile industry in India. The number is even higher if we consider related sectors like cotton farming and retailing as well.

**Figure 1: Indian textile market is expected to grow at 13% per annum from 2015 to 2021**




*Source: IBEF Textile sector report 2016*

Future prospects look promising for us with China slowly taking a back seat owing to rising labour costs and a shift in economic priority. India has a golden opportunity to capitalize this opportunity. However, the competition is fierce with countries like Bangladesh and Vietnam doubling down on the sector. According to a recent report, exports from Bangladesh and Vietnam have grown by 17% and 19% per annum respectively between 2002 and 2014, whereas exports from India have grown by only 11% in the same time frame.

The policy environment is turning more favourable and with the right focus, the sector can consolidate its position in the international market. Government of India has included Textile Industry amongst the 25 key sectors in Make in India, acknowledging its potential to compete with the best in the world. The New National Textile Policy promises an annual investment of over Rs. 6,000 crores and has introduced radical changes to labour rules with the objective to create one crore additional jobs over the next three years.

## Significance of employment generation in textile sector

Textile sector has a demonstrated track-record of improving the economic well-being in developing countries. Specifically, the garment manufacturing part of the value chain is less capital intensive, but has historically required a large number of workers. More important, the skill requirements are relatively lower, and can be imparted through a structured training and apprenticeship program in a short time. Hence, it is well suited to create large scale employment opportunities for semi-skilled labour, especially for women. Apparel manufacturing has proven to be a gateway to move millions of people out of the clutches of poverty in less developed countries such as Bangladesh, Vietnam and Cambodia.

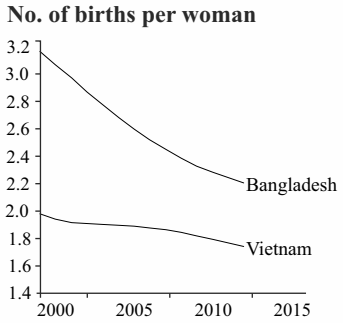
According to IFC, the garment and textile sector in Bangladesh accounts for 80% of total export earnings, 20% of GDP, and employs 4.2 million workers in more than 4,500 factories. Creating economic opportunities for women goes a long way in their empowerment and thus improving the well-being of the community. According to reports, countries like Bangladesh and Vietnam have witnessed a decrease in fertility rate among women and improved access to sanitation with rise in women employment.

**Figure 2: Rise in women employment has driven social transformation**

**Women's employment (Mn employees)**

| | 2000 | 2009 | 2014 |
|---|---|---|---|
| Bangladesh | 1.5 | 2.7 | 3.2 |
| Vietnam | 0.4 | 0.7 | 2.0 |

*Source: World Bank, Literature search*



The export oriented garment industry has contributed greatly to poverty reduction in Cambodia as well. A study by Institute of Developing Economies, Japan, identifies 3 main reasons for this: firstly, entry-level workers earn above the poverty line, secondly, representation of women in the workforce is very high, and lastly, barriers to employment are low in terms of skills or education level needed.

**Figure 3: Rising textile exports has driven reduction in poverty in Cambodia**

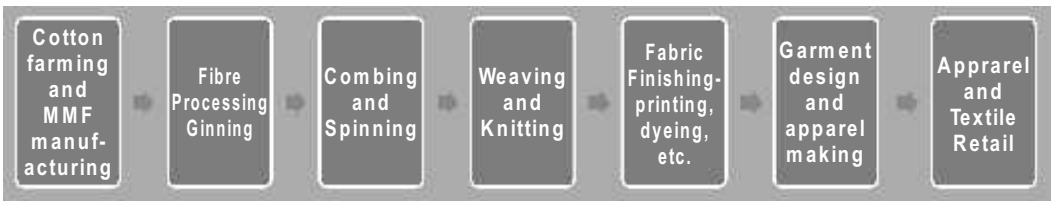



*Source: Garment Manufacturers Association Cambodia; World Bank*

Currently, textiles sector is the largest industrial employer of women in India and it is estimated that 60% of the total workforce are women. This is particularly relevant in the broader context where India ranks last among BRICS countries, and close to the bottom in South Asia in female labour force participation. It is heartening to see that number of women employees has increased by 15% in textile industry nationally and double that rate in Gujarat in the last five years. With the right policy support and proactive capability building, we can go a long way in bringing economic and social changes to the country through employment generation in textile sector.

Apparel and textile value chain has power to create jobs across range of socio-economic and demographic strata – right from cotton farming, through apparel manufacturing and retail.

**Figure 4: Textile employment across value chain**



Cotton farming has helped drive incomes in rural areas and traditional handloom and khadi industries supported by government agencies and associations have helped create jobs in rural and semi-urban clusters. Modern integrated textile mills require capital equipment and are largely located in urban pockets. Ditto for garment manufacturing, though newer units are being set-up in upcountry locations (e.g. in smaller towns in Karnataka).

India has a young and growing population and the share of working-age population is expected to increase to more than 64% by 2021, with a large number of persons in the 20-35 age group. Women are increasingly entering the workforce, further expanding the worker base. Apparel and Textile sector can play a critical role in ensuring that sufficient employment is generated across rural and urban areas to address this situation.

## The opportunity ahead

Government of India has rightly identified Apparel and Textiles as a sector that can generate export income and large scale job creation. The domestic textile market is expected to grow by 13% CAGR, and exports to rise from the current $39 billion to $300 billion by 2025. The new textile policy aims to create 35 million additional jobs and attract investments of $120 billion by 2024-25.

Beyond the staple roles, apparel industry in its modern avatar is increasingly getting integrated with the fashion industry and is creating higher value opportunities in design, development and fashion. Technology infused products, which have optimal degree of moisture absorption, temperature regulation and stretchability are already part of mainstream performance sports clothing.

Further, specialty technical textiles that are suitable for fire retardant, chemical/ nuclear/ biological protection, and ability to withstand extreme environments are making strides every day. As the Indian society prospers and matures, the demand for these specialty apparel will drive need for improved and sophisticated technology and know-how, and a higher skill set from workers.

At the leading edge, the sector is thriving with path-breaking innovations. It will not be long when apparels would look like something straight from the pages of a science fiction. Smart fabrics that can measure heart rate and sleep patterns of the wearer, or that can enable swiping on shirt sleeve to receive a phone call or guide your way are not that far away. We need talented scientists and engineers in the country to join the innovation bandwagon to ensure that our country is not left behind.

While technology provides an opportunity for the sector to move up the value chain, the flip-side risks cannot be overlooked. Increasing influence of automation, robotics and artificial intelligence will challenge the conventional scaling up of job creation. According to a recent World Bank research, automation threatens 69% jobs in India, mainly in the manufacturing sector (including the apparel and textiles industry). Hence, it is critical that we keep our skills and practices contemporary through continuing investments in capability building. Ensuring overall growth of the Indian textile sector will be critical to offset the loss in employment resulting from automation.

### Measures to boost employment in textiles

> ***"Strengthen the sector by providing financial support to small scale players, linking them to the latest designs, orienting them on quality control and establishing market linkages"***

Apparel and Textiles opportunity is a large and exciting one, and especially attractive for a country like India where it can enable large scale socio-economic transformation. However, for us to come out as a global leader, it is important that the government and industry take proactive steps.

The government must provide enabling policy environment and infrastructure:

- **Favourable labour laws and policies:** Textile sector is a labour intensive industry and it is critical to have suitable labour policies for the health of the sector. The reforms announced in the new Textile Policy are a welcome move and should help improve productivity, flexibility of employment and increase workers' earnings, eventually leading to increased job creation in the sector.

- **Focus on skill building:** Textile sector has traditionally been a low/ un-skilled employment space. With the advent of technology and new productivity norms, it is imperative to impart new skills to the workers. Skill development and upgradation will also allow vertical mobility to workers, thus improving their living standards. This is a critical area where India should focus to build its competence; other competing low-cost countries like Bangladesh currently fall short in this regard.

- **Focus on MSMEs and unorganised sector:** Textile sector is largely unorganised and often follows outdated production practices due to lack of capital or awareness. There is a need to strengthen the sector by providing financial support to small scale players, linking them to the latest designs, orienting them on quality control and establishing market linkages. This would go a long way in ensuring export competence of the sector, and thereby its employment generation potential.

  Traditional weaving and handlooms also need special attention. The sector is in the danger of becoming obsolete and weaving skills face threat of dilution. Prime Minister recently appealed to people of India to promote this sector and August 7th has been declared as National Handloom day. However, more concerted efforts and policy support are needed to create demand for products and thus the improve livelihoods of millions of rural artisans.

The private industry must do its part to ensure continuing march towards high quality, well designed and technically contemporary products. The incumbent players must also adhere to the highest standards of sustainability and governance as international brands and consumers pay a high

emphasis on the same. It is important to ensure healthy working conditions especially in the unorganised sector where there is less collective bargaining power among the workers and the companies often operate outside the purview of regulations. Regular audits of safety conditions and creating awareness among workers are very important.

**Conclusion**

India stands at a historic opportunity to become the world's leading player in textile and apparel industry. China's receding play in the global textile and apparel markets provides us with a never-before window to step-in and scale-up rapidly. The breadth and depth of the apparel and textile value chain can generate large scale employment across socio-economic strata, and prove transformational in our aspiration to drive economic development and prosperity at the grassroot level.

The recent policy push and favorable macro-economic conditions are nudging the industry in the right direction. We need more focus to support small players achieve minimum threshold scale to update to modern production techniques that enhances productivity. This will in turn improve profitability in the sector, earning potential of workers and the quality of produce – thereby rendering us more competitive in the global market. We can become the next textile manufacturing and export powerhouse through the right mix of reforms and investments, which can in turn have a multiplier effect on the economic and social well being of the country through employment generation.

---

*The author is Chairman and Managing Director, Arvind Ltd*

# Solving India's problem of jobless growth

*Arun Maira*

*My Idea*

*The solution to India's need to create more jobs faster is to urgently apply a more effective process to develop a good, synergistic policy-matrix.*

There is an old and wise saying, "If you do not know where you are going, you will end up somewhere else." "Achhe Din" will come into the lives of Indians when they have dignified livelihoods with decent incomes. The number one priority of the Indian government must be much faster generation of more, and better jobs. The Indian economy's growth, in terms of GDP, is the highest in the world at present. However, it is one of the slowest in the world in creating jobs. The employment elasticity of the Indian economy (the rate of jobs growth in relation to GDP growth) has been less than the global average from 2000 to 2010. The average employment elasticity of the global economy was 0.3 in this period, while India's was only 0.2. Even more worrying is the declining trend of employment elasticity of India's growth. It declined from 0.44 in the five years 1999-00 to 2004-05, to only 0.01 in 2004-05 to 2009-10—close to jobless growth. The government's sights must be fixed on the generation of more jobs as the principal goal, rather than the growth of GDP. Otherwise the Indian economy will produce more GDP and not jobs.

While the Indian government is pressing on the accelerator to induce more job growth, with its Make in India, Skill India, and Start-Up India campaigns, technological advances may be throwing a spanner in the works. Rapid advances in digital technologies and automation are displacing people from work in all sectors of the economy—in manufacturing, in services, and even in knowledge industries. Studies in the USA and Australia estimate that by 2035, 35% of all work in their economies will be automated and this can impact over 50% of present employment. The International Labor Organization (ILO) says, in its Future of Work Report, "The unfurling technological revolution…is so far-reaching in its labor-replacing potential that it is inherently different from what has been experienced in the past."

> ***"Jobless growth is a '5C' problem: a Complicated Condition Created by Combinations of Causes"***

The World Bank estimates that automation is a threat to 69% of jobs in India. This must be

of great concern to India's policy-makers who fear that there can be socio-political turmoil if there are not enough jobs for India's burgeoning youthful population. India's policy-makers should not lose heart. Because a doomsday projection of a world in which everything is done by machines and computers is unrealistic. To complete the picture, one must also imagine what human beings will be doing in such a world. And consider how they will earn to pay for all the products and services produced for them by machines. A completely robotised world, in which machines will make machines too, will require very few people. Perhaps the only people with incomes will be the capitalists who own the machines, their financial managers, and their lawyers to sort out property disputes amongst them! In this world power will be entirely with owners of capital and machines and it is feared they will keep using their power to throw human beings (who can be troublesome) out of the production system, replacing them with more obedient machines.

Technology is only one force shaping the world. Human aspirations and, propelled by human aspirations, social and political forces shape the world too. These forces will create institutions and arrangements to protect human interests, including opportunities for work and sources of income for people, long before machines (and their owners) can eliminate them. No doubt the shape of production systems will change with technology. But people will not be eliminated. They will perform new tasks in enterprises which will take new forms. Technology will be used to shape these new enterprises. New models of enterprises will be founded on new concepts of production and management. New technologies are disrupting old concepts of manufacturing and old models of enterprises. They can enable new forms of enterprises whose scale can be increased by the aggregation of many dispersed activities rather than the sizes of their own factories and organizations.

Two forms of technologies are combining to disrupt old-style manufacturing monoliths. One is digital technologies that enable multiple operations to be done on one machine on a small scale, such as desk-top publishing and 3-D printing of material objects. These technologies are enabling manufacturing enterprises to be viable on very small scales. For example, even small and medium enterprises can use 3-D printers that cost less than $1000.

The other set of technologies that are changing the shapes of enterprises enable efficient connection of widely dispersed suppliers and customers. These are creating new disruptive business models, such as Amazon, e-Bay, and Uber. In India, such technologies are changing the shape of retailing industry models. 'Big box' retailing models are being deconstructed with on-line ordering and delivery in small lots to customers, rather than customers coming to large retail stores to buy large quantities at low cost. In India's case, these emerging models take advantage of the proliferation of smart phones in India, and they circumvent the problem of acquiring large plots of expensive land for the big-box stores.

The combinations of these two sets of technologies are enabling formations of large networks of many small enterprises in manufacturing and in services. Such models of enterprises do not require large

parcels of land, which large factories employing thousands do, and need less concentrated investment too. They will cause less political strain, in India at least, than the promotion of large monolithic enterprises. Moreover, such networks of many small enterprises will generate more widespread opportunities for growth of small enterprises and employment even in rural India.

Jobless growth of the Indian economy is a '5C' problem: a Complicated Condition Created by Combinations of Causes. Automation is adding another complication to the problem. Silver bullet solutions cannot solve such systemic problems with multiple causes, nor can conventional management approaches. The conventional management approach for solving a complex problem is to break it down into its parts and then address each of them. A tough CEO may say, "Tell me the six things to fix; I will charge six teams with relevant experts in them to fix them; and I will make sure I chase the teams to get these things done." Sounds like an effective way to solve a big problem, except that it often makes the problem much worse. Fixes often backfire because the interactions among causes are not understood. Therefore, a fix of one part of the problem makes another part worse, and the whole system's performance declines.

A person with poor health often has a 5C problem—a complicated condition created by combinations of causes. Many symptoms of the poor health may appear in different parts of the body. Specialists are brought in to treat each of the problems: the weak heart, the poor digestion, the mental anxiety. Often, when a specialist relieves the mental anxiety with a strong medicine, its side effects can make the digestion worse. Then an intestinal specialist may prescribe the latest drug to treat that condition. Which may affect the heart. The sub-systems of the body are parts of an interconnected system. Increasingly, what is missing in modern medicine is a general physician (GP) who has the skill to comprehend the whole system.

Jobless growth can have multiple causes. Consider just five of these: unskilled people, insufficient investment, difficulty of doing business, rigidity in labour laws (difficulties in firing employees), and inadequate (or inappropriate) social security systems. Each of these requires a solution. Therefore, separate ministries are charged with the development of policies and their implementation to address these problems. Then, their progress is closely monitored as it should be. And a competition between them begins. Which is the best ministry, and the best minister? Competitiveness can make cooperation, which is vital to solve 5C problems, even more difficult to obtain.

If the big goal for skill development—skilling up several hundred young people within a few years, which is the goal of the new skills ministry—is achieved before jobs are available for these skilled persons, it will make the social and political problem of joblessness worse, though the skills ministry will have met its goal. Rallying more investments before ease of doing business improves will create more disappointed investors with more stories of the difficulty of doing business in India, which will make it even more difficult to attract more investors. The introduction of new technologies will require new skills which will be learned mostly on the job where the new technologies are being

applied. Flexibility in hiring and firing will reduce employers' incentives to train their workers. And, more flexibility for employers before social security systems are improved will create social and political pressures against the reform of labour laws. When the system is not considered as an integrated one, there will be many fixes that will backfire and prevent the generation of more jobs faster.

> ***"5C problems require '5S' solutions—Systems, Scenarios, Steering Synergistic Solutions"***

Jobless growth, in spite of high GDP, now complicated by advances in labour-displacing automation, is a 5C problem. 5C problems require '5S' solutions—Systems, Scenarios, Steering Synergistic Solutions. They require an understanding of the System. Then solutions can be envisaged by preparing Scenarios of the system. Then, with stakeholders engaged, leaders can Steer Synergistic Solutions. 5S solutions proceed through three broad stages. First, understand the System. Then, project plausible Scenarios of the future states of the system. Thereafter, Steer Synergistic Solutions.

"Generative Scenario Planning" is a 5S methodology which is much better suited for solving India's 5C job growth problem than are conventional approaches to policy formulation and implementation. In the first step of generative scenario planning, diverse experts and stakeholders are brought together to brainstorm what are the forces complicating the situation. Each, like the blind men around the elephant, can see a part of the whole picture. Putting their perspectives together, they can see a bigger picture emerging, in which they will find questions to explore. This step is akin to the view a good GP would take of the condition of the body. A good GP generates a good hypothesis or two, and then recommends that a few tests be conducted to understand the condition better, before beginning any treatment.

Similarly, in the second step of the generative scenario process, a few, potentially high- impact factors that require to be much better understood are examined, by consulting relevant experts and gathering data. In the third step, the interactions among these forces are examined to develop a model of the system. The system model focuses on the interactions among the forces. By focusing on the interactions, it anticipates fixes that can backfire which conventional management approaches that pursue solutions in silos are often blind too. It also enables the solutions to the parts to be modulated, to reduce any unintended bad effects good solutions to one part could have on another. The system model also helps to locate the 'high leverage' points, or 'pivotal' points in the system. Concerted action at these points can cause the system to take a different course into the future.

With these insights—a broad system model, and its pivotal points — plausible scenarios can be projected of the future. If the forces play out in one way, with action at the pivotal points, then one scenario can emerge. If, on the other hand, other actions, or no actions are taken at the pivotal points, other scenarios can emerge. Scenarios are not predictions of the future. They are guides to what is

likely to emerge if some actions are taken, and if forces play out as they may. Scenarios provide a steering mechanism, by providing directions for policies, and by analysing the early warning signals that should be watched out for. They are tools for Steering Synergistic Solutions.

The Indian Government's Job#1 is to institute a Jobs Policy for India. The solution to India's need to create more jobs faster is to urgently apply a more effective process to develop a good, synergistic policy-matrix. The effectiveness of the policy will depend on the quality of the process to produce it. Generative scenario planning, a 5S process for 5C problems, can provide a good framework. It can enable systematic participation of stakeholders along with the government to shape and implement a Jobs Policy.

---

*The author is Chairman, HelpAge International and Former Member, Planning Commission*

# Landscape of future jobs

*Ashok Malik*

**My Idea**

*India will have to find that happy mean between innovative technologies that transform manufacturing but don't create jobs; entrepreneurial energies at the bottom of the pyramid that could create service-sector employment; and a manufacturing story that could lend itself to telling but that by itself may not create too many jobs.*

In the late 18th century, the English clergyman and writer Thomas Robert Malthus put forward his theory of an overpopulated world, arguing expansion in human numbers would always outpace the earth's capacity to provide food. Over two centuries later, a very different Malthusian problem challenges the world: the commodity in short supply this time is not food but jobs, at least formal jobs, recognisable as such by human society as we have known it.

No country faces this mismatch between job opportunities and population more than India. As a society, it is approaching the peak of its demographic boom, which will hit a high in 2030 with a youth population of 485 million aged between 15 and 34 (of a total population of 1.5 billion). That will be the biggest such cohort in human history. The oldest in this group are already job seekers (more important perhaps, they are voters); the youngest have just been born.

Yet, these job seekers have and are coming of age in a world where technological change is driving many jobs and many types of jobs into obsolescence. The Fourth Industrial Revolution, the prospect of manufacture by way of robotics and 3D printing, the replacement of not just blue collar but even certain types of white collar jobs by machines, automation and digital technology is moving at a furious speed.

Many of these innovative technologies are still just about arriving in India, but the impact of automation is already being felt. In the period 2001-11, the rate of growth of labour force (2.23%) was significantly higher than the rate of growth of employment (1.40%). As India's baby boom becomes more pronounced, so will the ferocious impact of a technology revolution that will add value but take away jobs.

> ***"Job-consuming innovation is now 'collar blind'. No longer is it threatening merely manufacturing jobs"***

This is not a problem limited to India. In a frequently quoted study from 2013 (The Future of Employment: How Susceptible Are Jobs to Computerisation?), the Oxford

University academics Carl Benedikt Frey and Michael Osborne identified 47% of jobs in the United States as being at risk of replacement by machines. The number for Japan was similar. In Singapore, government officials speak of "30 to 40% of the jobs we have been training people for disappearing in the coming decade".

The Millennium Development Goals Report 2015 says the world's employment-to-population ratio fell from 62% in 1991 to 60% a quarter-century later. In 2015, 204 million people worldwide were unemployed. A further 1.45 billion people are in what is termed "vulnerable employment", largely in the informal sector, with minimal social security benefits, and in danger of losing out to market volatility or an efficient machine.

India reflects these figures, in fact it substantially contributes to them. As per the World Bank, only 30 million Indians work in the organised sector. A massive 440 million are in some indeterminate state of informal or semi-formal employment in the unorganised sector. This skew is further threatened by technology and digitisation driving out a variety of jobs, from the shop floor to office desks.

Job-consuming innovation is now "collar blind", as the expression goes. No longer is it threatening merely manufacturing jobs. Rather, it targets semi-skilled jobs in factories as much as the lawyer who claimed his fees drafting wills for clients. Template wills can now be printed off the Internet. Financial services firms and banks too are adopting automation to the detriment of those pinning hopes on the probationary officers' examination or its equivalent.

Industries in India that have developed world-class capacities have already experienced such tectonic shifts. Take automobile manufacture. Between the early 1990s and the end of the first decade of the 21st century, Mahindra Auto grew dramatically as a company. Its product range and numbers increased enormously. Nevertheless, in that phase personnel costs shrunk from 13% of all costs to only 5%.

Companies and communities across the globe grapple with such concerns. As the Harvard University economist Dani Rodrik wrote in an acute article[1] in January 2015: "A spectre is haunting the world economy - the spectre of job-killing technology." Three paragraphs from Rodrik's article are worth noting:

> *The potential benefits of discoveries and new applications in robotics, biotechnology, digital technologies and other areas are all around us and easy to see. Indeed, many believe that the world economy may be on the cusp of another explosion in new technologies.*
>
> *The trouble is that the bulk of these new technologies are labour-saving. They entail the replacement of low and medium-skilled workers with machines operated by a much smaller number of highly skilled workers ...*

[1] https://www.project-syndicate.org/commentary/labor-saving-technology-by-dani-rodrik-2015-01?barrier=true

*A world in which robots and machines do the work of humans need not be a world of high unemployment. But it is certainly a world in which the lion's share of productivity gains accrues to the owners of the new technologies and the machines that embody them. The bulk of the workforce is condemned either to joblessness or low wages."*

In a nutshell, this is the brave new world of work, employment, jobs - and joblessness. India is caught right in the middle of it. Domestically, its teeming youth population means its job creation aspirations cannot afford to fail. Internationally, with the advance of technology and the decline in global trade and demand, those job creation aspirations don't have the space to succeed.

**II**

Given this backdrop, where do the jobs lie for 21st century Indians? Packed into that query are a whole host of sub-questions - on geography and skilling, on manufacturing and services, on moving people off the farms and moving Make in India to another orbit, on social security and institutionalisation of informal jobs.

Traditional economic advance entailed a society graduating from agriculture to manufacturing. India saw the development of services, especially technology-led services, from the 1990s and its manufacturing suffered from what some term a "premature deindustrialisation". The government's "Make in India" endeavour hopes to reverse this trend somewhat and has ambitions of raising the share of manufacturing from the current 17% of GDP to 25% of (a much bigger) GDP by 2025.

Given the technological leapfrogging this will entail, it will certainly not create the volumes of direct low to mid-level manufacturing jobs that came about in Southeast Asia and China in the past three decades. This means unlike industrial economies of the past - from Germany to Japan, the United States to South Korea - India cannot look to large industrial corporations to provide jobs and social security to armies of workers.

Ninety per cent of India's workers are in the informal sector and that percentage is unlikely to decline appreciably. India will become the first major economy to have such a large proportion of its workforce in the informal sector or in self-employment. Consequently, it will have to find affordable solutions to social security provisioning - in the manner of the contributory pension or insurance programmes that have already been launched by the government. More than a temporary or bridge mechanism, these are set to acquire permanency and become a norm.

There is also the issue of services, where India has comparative advantages and where technology - by way of precision manufacture or food processing or agriculture-related services - is erasing the traditional boundaries between agriculture, manufacturing and services. Is there conflation here, contestation or simply a trade-off? An answer was attempted in a provocative Economic Survey (2015) chapter titled "What to Make in India? Manufacturing or Services?"

In its concluding section, the chapter held out both the boundlessness as well as boundaries of Make in India:

> *The choice for India is not manufacturing versus services but comparative advantage deifying (unskilled-intensive) sectors versus comparative advantage defying (skill-intensive) sector development. This is both a positive and a policy question ... The policy question is the following. Insofar as the government retains influence over shaping the pattern of development, should it try to rehabilitate unskilled manufacturing or should it accept that that is difficult to achieve, and create the groundwork for sustaining the skill intensive pattern of growth?*
>
> *Attempting the former would be a history-defying achievement because there are not many examples of significant reversals of de-industrialisation. A lot would have to change in India - from building the infrastructure and logistics/connectivity that supports un-skill-intensive manufacturing to reforming the panoply of laws and regulations, or perhaps addressing corruption in the manner of their enforcement - that may discourage hiring unskilled labour and achieving scale in the formal sector.*
>
> *Sustaining a skill-intensive pattern on the other hand would require a greater focus on education (and skills development) so that the pattern of development that has been evolving over time does not run into shortages. The cost of this skill intensive model is that one or two generations of those who are currently unskilled will be left behind without the opportunities to advance. But emphasising skills will at least ensure that future generations can take advantage of lost opportunities ...*
>
> *India can either create the conditions to ensure that its existing unlimited supplies of unskilled labour are utilisable. Or, it can make sure that the currently inelastic supply of skilled labour is made more elastic. Both are major challenges. What the analysis suggests is that while Make in India, which has occupied all the prominence, is an important goal, the prime minister's other goal of 'Skilling India' is no less important and perhaps deserves as much attention ... The future trajectory of Indian economic development could depend on both."*

The preceding extract suggests multiple conundrums, ones that will interrogate India right to the middle of the 21st century, if not later.

India will have to find that happy mean between innovative technologies that transform manufacturing but don't create jobs; entrepreneurial energies at the bottom of the pyramid that could create service-sector - or mixed-sector, such as food processing - (self)-employment; and a manufacturing story that could lend itself to telling but that by itself may not create too many jobs.

Also required will be a social engineering that will enable Indian society to discriminate between individual and family prosperity and a regular blue-collar job. In a sense, this may explain the emphasis on Start-up India, to complement Skill India and Make in India.

> ***"The gig economy is leading to consequences that are far apart in the West and in India"***

**III**

In Malthus' dark prognosis, children were born where food was found in abundance - and soon a growing population consumed that food. A paradox of India's job-to-people ratio is that babies are arriving in regions that are not creating jobs. Tomorrow's Indians are being born in the east - eastern Uttar Pradesh, Bihar and West Bengal. As it happens, the jobs are elsewhere.

It is important to understand this geographical discrepancy. India's GDP is today valued at US$ 2.2 trillion. In the next decade, by 2025-26, maybe earlier, it should touch US$ 5 trillion. About two-thirds of it will be located in three mega regions with a GDP of US$ 1 trillion each. First, the National Capital Region, comprising Delhi, Gurgaon and Noida, but stretching to Jaipur and Meerut and Gwalior. Second, the Mumbai-Pune-Thane belt, extending by way of the National Highway to Ahmedabad and constituting the southern end of the Delhi-Mumbai Industrial Corridor. Third, the 350 km stretch from Chennai to Bangalore.

This is where job seekers will go. The workplaces they encounter will be peopled differently from those of earlier decades. In the most basic reckoning, this will be a tribute to Indians living longer - a happy product of better health and increased life expectancy - and giving this country substantial ageing and as well as young populations. The absence of comprehensive public-funded social security will mean workers and their families will have to look after themselves longer, as they live longer. Theoretically, this could lead to grandfather and grandchild being colleagues. At any rate, it will certainly make for engaging multi generational workplaces.

In such a framework, nobody may ever truly retire and working life may be a constant series of reinventions and re-tooling of individual skills. Those who retire from safe, secure white-collar jobs at 60 will find that they are fated to live into their 80s, a decade longer than their parents, and their financial savings and pension schemes are inadequate. Those at the other end of the spectrum, moving from absolutely poverty to lower or neo-middle class status, will have to build their own social security nets, realising that the so-called "real jobs" are gone forever and the old dream of sitting in an office room from 9 am to 5 pm is not available off-the-shelf anymore.

Inevitably and inexorably, everybody will be pushed into a self-starter, skill-seller and individual-driven job market. Frankly, this predicament or situation is not unknown to vast sections of Indian society. The West, on its part, is waking to it only now. It has even coined a term for this phenomenon: the gig economy.

Ironically, the gig economy is leading to consequences and interpretations that are far apart in the West and in India. Take app-based taxi aggregator services such as Uber, Lyft or Ola. In the United Kingdom or the United States, they have taken drivers from jobs in traditional cab companies to mini-entrepreneurship, with no job security and initially high and then volatile returns: from formal employment to the adventure of informal employment.

In India, however, the gig economy is not a climb down, it is a leg-up. The same app-based cab services are moving drivers from the informal economy to the formal economy, from cash transactions to bank credits. Actually, this Uber-isation of our roads and minds is a pointer to the job landscape in the 21st century. In the gig economy:

- There will be financial rewards for effort but these will not be guaranteed. The same effort could fetch different rewards on different days
- An individual's skills set (driving a car, providing health care support in a hospice for the aged) will be his or her responsibility to attain and to take to the buyer or where demand is
- Irrespective of where you are in the value chain, you are more likely to be your own boss than your parent was
- There will be no accounts office to go to at the end of the month to pick up a cheque and no provision of provident fund and medical insurance schemes by a benevolent employer. You are on your own
- Technology will not allow workers to switch off. There will be no designated work and leisure times. People will make their own choices

The gig economy began as a fad, evolved into a trend and is beginning to represent a new normal. Is it a harbinger to how 21st century India will know and engage with jobs?

---

*The author is Distinguished Fellow, Observer Research Foundation*

# A connected economy for jobs

*Sunil Bharti Mittal*

*My Idea*

*Acceleration of economic activities in sectors with higher employment potential and promotion of entrepreneurship will prove to be effective antidotes to the threat of slowdown in job creation.*

As the fastest growing large economy in the world, India is a rare bright spot today in a difficult global environment. But in a populous country like ours, and with 12 million working age people getting added to the workforce every year, 'employment intensity of growth' is as important as growth itself. No wonder, of late, the link between 'economic growth' and 'job creation' has often been subjected to the most rigorous scrutiny by key stakeholders – policymakers, economists, industry, and even the common man.

Multiple studies in the recent past have pointed to a persistent decline in employment elasticity of growth, which effectively means that fewer hands are needed to produce the same amount of economic output. Early this year, the Quarterly Employment Survey of eight employment intensive sectors – textiles, leather, metals, automobiles, gems and jewelry, transport, IT/BPO, and handloom/power loom did point to a slowdown in new job creation with just about 91,000 net new jobs getting added in these sectors during the first half of FY 2016. Though it can be claimed that the narrow scope of the study (just eight sectors) may well have constrained its ability to capture the changing dynamics of job creation in the economy today, some concern over the rate of new job creation can however not be ruled out. The reason attributed by economists to this deceleration is change in the composition of incremental GDP in recent years; a large part of this is accounted for by less labour intensive services like IT/ITES, business and financial services.

I would like to believe that a challenge of this kind is perhaps inevitable in a rapidly modernizing economy where technology is constantly altering work processes in both manufacturing and services. The other factor impacting new job creation could be globalization; slowing global demand dragging down exports conspicuously, which in turn has drastically impacted overall employment in the export sector. Like the technology factor, impact of globalization is an inescapable reality today.

> ***"Skilling infrastructure needs substantive reorientation to create more employment ready job aspirants"***

India is clearly at an important crossroad today in terms of sector-specific distribution of employment. Nearly half the people currently employed in agriculture need to move out of the sector, for the sake of productivity, as too many people are engaged in a sector whose share in GDP is dropping every passing year. But the moot question today is whether manufacturing and services sector are ready to take this enormous burden at the rate we would like them to.

Having missed out on the manufacturing boom of the 1990s and the 2000s, that was so well exploited by China, it is incumbent upon us to revive and reorient the sector urgently to increase its share in the overall employment pie from the current 12-13%. Though it may not be possible to increase this to the level of China's, where about 34% of the work force is employed in manufacturing, taking it up to 20% could surely be a more feasible target. Thus, Make in India looks a timely step in the right direction.

While trying to energize the manufacturing sector, we however have to keep in mind some of the imposing challenges facing the sector today. The apparent disharmony between education and training infrastructure and the requirements of the industry have long been highlighted, but not addressed to. The skilling infrastructure needs substantive reorientation to create more employment ready job aspirants. Skill India Mission needs to be a more participative initiative to reflect industry's changing requirements more accurately. Labour reform is another key area that needs urgent action. Contrary to general perception that paint the proposed reforms as labour unfriendly, appropriate changes in laws in this area can actually encourage companies in the organized sector to recruit more.

We also need to keep in mind the importance of the informal sector as the foremost driver of employment in the economy. In fact, today India has only about 30 million jobs in the organized sector as compared to nearly 440 million in the unorganized sector. According to the Economic Survey 2015-16, of the 10.5 million manufacturing jobs created in India between 1989 and 2010, only 3.7 million were in the formal sector. Hence, all future policy changes with regard to new job creation or skill mapping need to keep in perspective the internal dynamics of this important sector.

Automation is clearly emerging as a big job killer. Innovations in AI, 3D printing and robotics have already alerted us about the vast scope of change in this area. According to a recent World Bank Study, automation could threaten about 69% of jobs in India in future. But given the fact that the same study also points to a corresponding potential job loss of 77% in China, we need to accept impact of automation as a global phenomenon. Instead of trying to block or restrict such an all-encompassing phenomenon, we will be better off planning for a smooth transition through such potentially turbulent changes.

It's now fairly clear that many of the traditional sectors in the economy are not in a position to absorb the rising load of new working age population as they become less labour absorbent. For instance, according to Crisil, in manufacturing if eleven people were needed to execute a piece of work that generate Rupees one million worth of GDP a decade ago, today only six are needed. In such a situation, it is quite imperative to look at other sectors to speed up the job creation process in the economy, notwithstanding the visionary Make in India initiative undertaken by the Government, which aims to increase the share of manufacturing in GDP to 25% by 2022 from 16% today.

The services sector has clearly emerged as the frontrunner as far as job creation is concerned. But given the varying levels of labour elasticity across different service sector, it will be critical to identify the right sectors to focus on.

> ***"A connected economy is not only more efficient and productive but a powerful generator of jobs"***

While new services like e-commerce and logistics are very much capable of multiplying their intake at a very rapid pace, others like IT, telecom, brick and mortar retailing, financial services and aviation too can speed up their absorption by taking advantage of a booming consumer market. The IT sector, which has been a prime driver of employment over the last two decades, is clearly undergoing a big transformation. While some of the traditional job profiles are getting completely obliterated, new ones – fewer in number, but richer in skills - are being created as customers abroad are seeking more productivity and value addition. Disruptive technologies – social, mobility, analytics, AI, cloud - while creating new jobs and opening new avenues of growth, are also making a lot of traditional IT jobs redundant. Making sense of this change process and planning for future manpower requirement of the sector to move up the value chain will of course be critical.

One of the biggest driver of job creation in a modern economy is entrepreneurship. If the Indian startup story is anything to go by, the country is in the middle of an exciting phase as far as entrepreneurship is concerned. The Government appears to have sensed this opportunity well and come out with extremely supportive initiatives like Startup India. Though temporary shakeups in the shape of scaling down of operations and closure of several startups in the recent past may well have raised some concern regarding startups' ability to sustain job creation, I am sure, such setbacks are only a passing phase in the overall evolution of the startup sector in India. Their presence will not only help the economy diversify rapidly but facilitate job creation as well.

Now coming to Telecommunications, the sector has over the years not just emerged as the most powerful catalyst of change in the economy but turned out to be a significant driver of job creation, both directly and indirectly. According to the Telecom Sector Skill Council (TSSC), today the sector accounts for about 9.8 million jobs directly and indirectly. As per National Skill Development Corporation (NSDC)'s Skill Gap Study, direct employment in the sector is expected to double from 2.08 million in 2013 to about 4.16 million by 2022.

The job creation process in the sector happens in a fairly wide and dynamic ecosystem. Sales and distribution networks of operators and handset marketers extend to the remotest corners of the country involving millions of retailers. Mobile technology too has evolved from 2G to 4G in a matter of few years, which has not only meant introduction of new network equipment but entry of new generation of handsets. The customer care apparatus of operators – B2B and B2C – too has expanded quite rapidly in a very short span of time. Such a dynamic ecosystem has also meant that people count is not only going up quickly, but skill upgradation too is happening at a similar speed.

According to the TSSC Report, Telecommunications is expected to generate significant number of new jobs primarily in supervisory and managerial profiles in the broad areas of Retail & Distribution, Service Operations and Network & IT (Managed Services). According to the report, of the total workforce in the sector, the retail and handset segments will employ the highest with about 35% followed by service providers 29%, network and IT partners 18%, telecom gear manufacturing 15% and infrastructure providers 3%.

Manufacturing in the telecom sector, which has picked up significant momentum in the last couple of years is likely to create new job roles at multiple levels. Major global manufacturers like Foxconn have already announced big investment plans in this regard, making one optimistic that handset and telecom gear manufacturing is going to be a major source of job creation in the country in future.

The biggest challenge for the sector would however come in the shape of scaling up the skill development infrastructure in a manner that helps make trained service manpower available across urban, semi-urban and rural areas over and above making available skilled personnel for telecom related manufacturing. For instance, qualified mobile repair personnel can be as important in a village or semi urban areas as in a metro. The other challenge could be keeping people in the sector updated with the rapidly changing technologies through regular training modules. Some of the innovative ideas – mobile training vans, use of idle real estate belonging to telecom PSUs for training - being considered by Department of Telecommunications (DOT) and National Skill Development Corporation (NSDC) can be particularly effective. Countrywide availability of trained telecom/digital manpower is going to be a critical ingredient for the success of 'Digital India'.

Telecommunications is clearly going to be a major source of new job creation in the days to come. But more than its own standalone ability to generate new jobs, it is the sector's transformational impact on other sectors to catalyse their respective job creation processes that holds the key to the problem of weak employment intensity. After all 'a connected economy' is not only more efficient and productive, but a powerful generator of jobs as well.

With a million young men and women joining the ranks of job aspirants every month, the challenge of job creation is going to be at the center of economic policymaking in the coming years. Acceleration of economic activities, particularly in sectors with higher employment potential and promotion of entrepreneurship will prove to be effective antidotes to the threat of slowdown in job creation. The Government has already indicated a firm resolve to accelerate economic activities with several visionary initiatives – Make in India, Digital India, Startup India - which are being aided greatly by Ease of Doing Business reforms. Increased economic momentum should in turn enhance job opportunities in the economy, however the government, industry and other stakeholders need to be vigilant on this front as a jobless growth is something that a populous young nation can ill-afford.

---

*The author is Chairman and Managing Director, Bharti Enterprises*

# Employment opportunities - entrepreneurship and flexible labour laws

*Y K Modi*

*My Idea*

*Policy focus should be on employment generation and job creation by promoting entrepreneurship.*

The latest labour bureau survey data shows that the unemployment rate is estimated at five per cent - highest in the last five years. This is a matter of concern. When it comes to job creation in India, especially in manufacturing, the situation is deplorable. India is a labour surplus country with 47 million unemployed people who are below the age of 24 years. Additionally, almost 12-13 million youth join the labour market every year. We cannot depend solely upon existing manufacturing and service organisations to provide employment to such a large number of youth. The only effective solution is to promote entrepreneurship.

**Entrepreneurship is the key**

I firmly believe that entrepreneurship should get the boost it rightly deserves. If everybody is looking for jobs, somebody has to provide jobs and that somebody has to be small, medium and micro enterprises. The aim should be to create job creators. I believe if we need one crore jobs, we need ten lakh entrepreneurs.

To create a robust eco-system of entrepreneurship in India, a critical change which is required is the societal change. In India, failure is generally not tolerated. However, in entrepreneurship, failure is a must. You start something, you fail, you start something again and then you succeed. We, as a society, must learn to appreciate failure.

Such societal change does not come automatically. I believe that government can play an important role by way of some 'Affirmative Action Policy' for new entrepreneurs. For instance, the government

> ***"In entrepreneurship, failure is a must. We, as a society, must learn to appreciate failure"***

should provide equal opportunity to new entrepreneurs (without experience) to participate in various tenders, subject to the conditions of quality and delivery.

Another aspect that requires a change in outlook is that of lenders towards new enterprises. Even today, if a new enterprise fails, the promoter and his family are often harassed by lenders for recovery of money. When a man takes a risk, he would either succeed or fail. Failure of business is not a crime, fraud is. Hence, fraud should not be mixed with failure. Policy intervention would help in bringing about change in such outlook.

Over the last two years, some positive steps have been taken by the government to promote self-employment, specifically Start-up India initiative which is aimed at encouraging and developing entrepreneurial skill. Unlike in the past, the new entrepreneurs can now have a relatively easy start with no inspection and income tax for three years, exemption from capital gains tax on personal property invested in start-up, 80% rebate on patent filing fee and option of easy exit under the new Bankruptcy Law.

Likewise, the Stand-up India scheme provides financial and consulting assistance to entrepreneurs from under privileged segments as well as to women entrepreneurs. Under the scheme, every bank branch has to provide at least two collateral free loans to entrepreneurs from these segments ranging from Rs. 10 lakh to Rs. 1 crore. These are positive initiatives and need to be implemented effectively.

Industry leaders can also take the lead by playing the role of mentors. We can share our experiences which would help the upcoming entrepreneurs. Apprenticeship training is one of the most efficient ways to develop skilled manpower for the country. For the first time in India, the government has recently notified a National Apprenticeship Promotion Scheme, which incentivises enterprises to take apprentices. Under the scheme, 25% of the prescribed stipend payable to an apprentice would be reimbursed to the employers directly by the government. All these are positive steps that need to be scaled up and followed with more supportive policy initiatives.

### Relook at the labour policies

A very small portion of India's total labour force is under the organised sector, and this sector has seen very slow growth in employment. The key reason for this is the country's rigid labour laws and excessive regulations, which discourage entrepreneurs to hire permanent workers and they prefer employing informal or contract labour.

One must recognise that manpower is a resource and skilled manpower is very precious. Job creation is, in essence, a question of demand and supply. The labour laws and policies should thus be framed with an approach and understanding that people want to work and employers want to hire. Thus, the need of the hour is flexibility and flexibility does not mean hire and fire.

> ***"Labour laws and policies should be framed with an understanding that people want to work and employers want to hire"***

In particular, there is a need to review the rigid labour laws, especially Chapter VB of the Industrial Disputes Act, which was introduced through amendments in 1976 and 1982. However, one aspect, which deserves to be looked at in this connection, is that of compensation to the workmen in the event of retrenchment or closure. The Act stipulates that, as a rule, the compensation should be the average pay for fifteen days for each year of continuous employment. Such compensation is pittance. Nowhere in the world is the compensation so low. In my personal opinion, compensation should include a year's remuneration. So, while removal would be rendered easy, higher compensation would serve as an economic disincentive to dismiss employee(s) unless necessary.

What is needed from government is a framework that helps entrepreneurs to hire. Labour policies should be inclusive. Unemployed workers should have access to some form of unemployment insurance and appropriate training to enhance their employability.

Another aspect of labour reforms is to reduce the complexities. Currently, there are 44 labour laws under the purview of Central Government and more than 100 under State Governments. The entire gamut of the labour laws should therefore be simplified, clubbed together wherever possible and made less cumbersome to make the environment more employment friendly.

Additionally, there is a need to incentivise employment generation. In the last Union Budget, the government took an extremely positive step in this regard by agreeing to pay the Employee Pension Scheme contribution of 8.33% for all new employees for the first three years of their employment. Recently, the government also announced a special package for apparel sector to help create one crore additional jobs over the next three years. As a part of the package, the government has introduced fixed-term employment and brought parity between the contractual and permanent labourers in terms of wages and all other incentives. This is an important step that can potentially be replicated in other industries as well.

Likewise, many State governments have started undertaking labour reforms. For instance, Rajasthan Government has relaxed the Trade Union Act, Industrial Dispute Act, Contract Labour Act, as well as the Factories Act and Apprenticeship Act to spur economic development and attract foreign investment. As per the amendments introduced, industrial establishments employing up to 300 workers are now allowed to downsize without seeking prior permission of the Government. The threshold of the number of employees required for the purpose of applicability of the Factories Act has also been increased from 10 to 20 (in electricity-powered factories) and from 20 to 40 (in factories without power) thereby putting small factories in Rajasthan outside the purview of the Factories Act.

To fix the employment outlook of the country, the government should fix the policy, where employment generation and job creation should be emphasized more, so as to promote entrepreneurship and self-employment.

---

*The author is Executive Chairman, Great Eastern Energy Corporation*

# Future of jobs!

*T V Mohandas Pai*

*My Idea*

*India will have to invest in Industry 4.0, also transform to a nimble demand led education system integrated with skill development.*

Historically, the industrial revolutions have occurred whenever there have been changes in the energy and the communication technologies. Each of the industrial revolutions have impacted the society and the economy in its own way by creating jobs, occupations and changes in lifestyles.

Today, we are at the brink of a Fourth Industrial Revolution which encompasses a wide spectrum of technological advances across the value-chain such as artificial intelligence, machine learning, 3D printing, robotics, genetics, Internet of Things, nanotech, bio engineering, etc. - all working in unison to solve diverse global and local challenges. All this is due to machines having intelligence added to them, with the ability to self learn and react to an extraordinary degree. The differentiating factor is the large scale automation of jobs, use of intelligent machines and robots. For a labour surplus young country like India which is in need of massive number of jobs, this is the perfect social disaster.

Industry 4.0, which started off in Germany, is being adopted by countries around the world. Developed nations like USA, France and Japan have already taken the first step in this direction by launching nation-wide programs. FICCI-Roland Berger study on 'Skill Development for Industry 4.0' reveals that the adoption of Industry 4.0 by developed nations present significant threat to India and other emerging nations as it will result in reverse job migration to the developed nations further lowering jobs in low cost destinations.

Industry 4.0 will bring higher level of automation, interconnectivity and efficiencies in the manufacturing process. Smart machines will coordinate manufacturing processes by themselves, smart service robots will collaborate with workers on assembly lines and smart transport systems will transfer goods from one place to another. Smart devices like sensors, tablets, wearables, etc., will be used to gather and analyze real-time information and machine operations. Artificial intelligence will enable collaboration between humans to machines and machine to machine.

With 65% population being in the working age group, India is grappling with the twin challenge of skilling millions of youth and employment generation. As per projections, over 100 million

incremental people will be required in India alone, across 24 key sectors by the year 2022 to meet our needs unless automation reduces the need. Yet, only 20% of the Indian population has undergone formal skill training. We have to accommodate the annual 18 million Indian youth entering the workforce for the first time during the next decade and a half. Against this need, at present only 5.5 million additional organized sector jobs a year are being created which is certainly not enough. In India, the services sector is the powerhouse of job creation but services industry workforce is expected to shrink in the future due to automation.

***"Services sector is the powerhouse of job creation but services industry workforce is expected to shrink in the future due to automation"***

According to FICCI-EY analysis, due to the technological disruption, the job pyramid categorised into skill based, rule based and analysis based will be differently impacted. The skill based jobs are impacted by industrial automation and robotics. The routine manual jobs in manufacturing and services sector would be lost but bespoke jobs like installation mechanic, repairman, etc. will remain as there are several manual roles that still remain exceptionally tricky for robots. The role of an office assistant has undergone a big shift in the last 20 years - from manual to electronic typewriters to computers to tablets - they have had to learn new skills to operate new technologies. The process based jobs will be transformed by cloud computing, automation and sensors to complete the task faster and in a more efficient manner with least errors, possibly leading to elimination of many jobs. The impact is visible with slowdown in hiring by large Indian IT companies. However, new jobs are also being created with need for new skills to adapt to the change. The analysis based jobs would be affected by artificial intelligence and augmented reality, however, these jobs are less susceptible to be replaced right now due to cognitive or human judgment element attached to these jobs.

To fully realise the economic opportunities of the technological advancements, India will have to invest in Industry 4.0, also transform to a nimble demand led education system integrated with skill development. While planning policy, we need to understand India's complexities and diversities with coexistence of Industry 2.0 and 3.0 along with Industry 4.0. We need to operate at all three levels simultaneously while bringing up the whole sector to Industry 4.0. Unless the skill program of the country is based on demography, geography, industry growth, migration of internal and international labour, India's demographic dividend would certainly become a demographic nightmare. We cannot expect to get radically different results if we do not make fundamental radical changes in our approach for policy planning and processes.

In the Industry 4.0 era, employees would be required to do less of manual work and more tasks of control, supervision of processes, process improvement and optimization activities. As per the 'Future of Jobs' survey conducted by the World Economic Forum, one-third of the desired core skill sets of

most occupations in 2020 will be different from today's requirements. Going forward the critical skills expected by the workforce can be classified into three baskets-

- High end skills like programming IT solutions, managing complex automated systems, systems thinking, critical thinking
- Business optimisation processes , cross industry communication, client focus
- Ability to work under uncertainty and constant change, team work, environment consciousness, multilingual capabilities

India's preparedness for adoption of Industry 4.0 at present is low. It has been initiated in a few private automobile companies. There are no institutional arrangements to map this change that is engulfing the world at a very rapid pace. We are also faced with the challenge of finding jobs for 18 million youth entering the workforce annually for the next decade and a half. Inadequate job creation is further impacting the unemployment rates. Thus, there is an urgent need to bring five critical changes in the system to prepare for future jobs:

### 1. Create a seamless Labour Market Information System (LMIS)

The biggest problem before Skill India is the accuracy and reliability of data. Information on the demand for workers in specific occupations and the changing content of these occupations has to be developed using data from several sources. Currently, the baseline data on occupations is usually gathered along with other demographic and labour market data when a general census of the population is conducted once in 10 years.

Alternately EPFO, ESIC and other official statistics on government employees provide critical data on formal employment. This data can provide authentic information on the sectors/industries that are growing and also indicate the geographic location to help in planning for skill development.

For continuous data analytics on employment by industry, skills and geography, a Labour Market Monitor is needed that would map short term labour market trends by collecting, analyzing and disseminating data on vacancies and registered job seekers. Multilingual dictionary of occupations and skills is needed to enhance transparency of vacancy information to improve matching between job seekers and vacancies. This would also remove the differential taxonomy of classifying various job roles.

### 2. Expansion and integration of quality education and skill development

Vocational skills can only be built after acquiring basic competency - the kind that only school education can impart. For this, equal attention is to be paid to primary education. Currently, statistics tell a dismal story. Of all children enrolled in Class V, about half cannot read at the Class

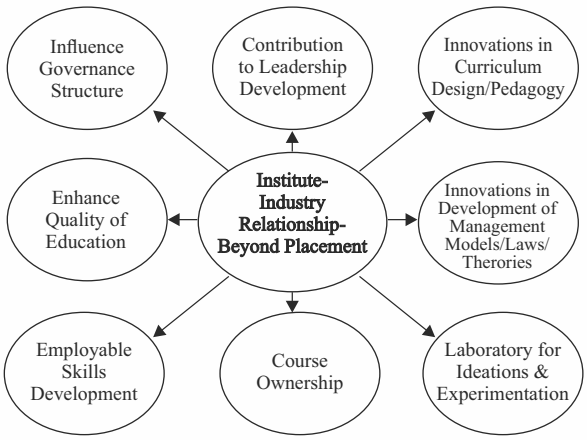
II level and more than 80% are unable to read sentences (ASER report, 2014). Close to half of all the children finishing eight years of schooling still do not have basic arithmetic skills. Of 100 students entering class 1, hardly 70 complete class 10, 50 complete class 12 and only 25 go to college. The drop out is colossal and a huge waste of human potential and capability.

Skill development and VET have never been aspirational for our country. To achieve the PM's vision, the fundamental requirement is creating an ecosystem which assigns dignity to vocational education and skill. We need to certify and recognise existing skilled citizens and give them the respect they deserve to make them role models. The National Skills Policy, 2015 proposes to link skill development in at least one school out of four in next five years from class nine onwards, providing seamless integration of vocational training in formal education.

### 3. Active involvement of industry in skill development and higher education

In several developed and developing countries like Germany, Korea, Brazil, industry is a proactive partner in skill development. Although the Sector Skill Councils are set up to develop national standards in collaboration with the industry, training is not driven by the employers. While the large conglomerates have their own training institutions, MSME clusters should be provided fiscal incentives and soft loans to set up Training Centres that would cater to collective training requirements of establishments in the cluster. This would also bring down the cost of training and re-training for each company.

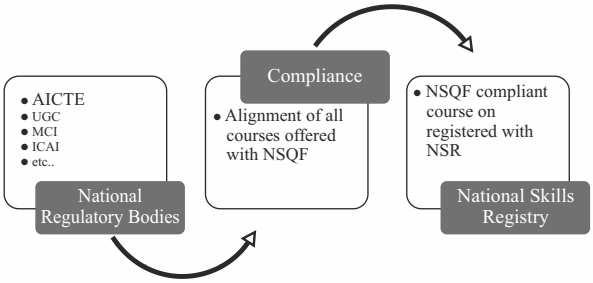
**Model of Institute – Industry Relationship**




### 4. Setting up of specialized standard setting institutions

The Government should allow the creation of a comprehensive accreditation mechanism that should include qualitative parameters such as periodic curriculum review by the institution, student teacher ratio, use of ICT, pedagogical innovations, employment, leadership vision, faculty development, evaluation & assessment systems, institute- industry interface, etc.

Credible independent professional accreditation bodies for schools/ technical education institutions and higher education should be set up. To expedite the process, existing rating agencies like ICRA, CRISIL, professional associations and industry associations should be brought into the fold. A Third Party Rating mechanism independent of government intervention should be created and the institutions should be encouraged to participate in such ratings.




## 5. India as a skill supplier to the world

India's population is projected to reach 1.45 billion by the year 2026. Virtually all of this demographic growth will take place in the working age range (15-59 years). As a result of this, the workforce is expected to double. India already has the largest youth population in the world with around 66% of the total population under the age of 35.

At this unique juncture, India has reached a point that will come but once in its growth trajectory where her population is not just young, but also at that stage of development that spurs higher rates of internal and international migration. This, however, presents both opportunities and challenges. The first of which is skill development for overseas employment. Only 5.5 million jobs are being created in India currently while 18 million youth will be entering the job market annually for the next 10 years. It is clear that in this economy with limited job creation rate, we need to identify global pockets of opportunities.

The Economic Survey of India data from 2001-2012 shows that although 50% of employment was in agriculture sector, the per capita income rise was minuscule compared to manufacturing and services sector. To remain at 9-10% GDP growth rate, it is imperative that we shift employment from agriculture in rural areas to manufacturing and services. In this respect, we must follow what China has done in terms of developing new urban centers across the country.

The new fourth industrial era has brought knowledge repository and communication to the doorsteps of every household and will see massive growth of distributed micro economies. India will have to prepare not just job seekers but also create an enabling environment for entrepreneurship and start-ups who will be the job creators as well. A beginning has been made by the government by launch of Start-up India and Stand Up India initiatives. However, a concerted strategy needs to be developed to face Industry 4.0. At least 50% of current jobs may disappear by 2030 and we need to be prepared to face the future.

*The author is Chairman, FICCI Skill Development Committee and Chairman, Manipal Global Education Services*

# Creating a skilled India, an employable India

*Pankaj Patel*

*My Idea*

*Opportunities for employment are aplenty; we need a holistic action plan that covers - a skilling and re-skilling programme to increase employability and productivity, and incentives for smaller enterprises to absorb a greater number of workers.*

There is a vision that we all share of transforming India into a robust, development-oriented economy which is capable of achieving, maintaining and sustaining high levels of growth over the next decade. One of the critical factors in achieving this is 'Employability', that is looking at how we can make a growing young demography more employable.

The coming decade will be crucial for India and only if India grows at the rate of 8-9% per annum, India's per capita GDP will grow from the current level of $1,800 to $8,000-$10,000 by 2025. The growth matrix for the next 10-20 years will be very different - and far more challenging and complex than what we have witnessed. Clearly, jobs and productivity must be the pivots for social and economic framework in the coming years.

The country's advantage lies in its young population and a dynamic and rapidly growing consumer base. India's demographic dividend can be realised fully by imparting our youth with appropriate skills. In fact, to improve the effectiveness and contribution of labour, a National Skill Development Mission has been constituted which envisions creating 500 million skilled people resource by 2022. A National Skill Development Agency has been set up to coordinate skill development efforts across various Ministries and State Governments. A National Skills Qualification Framework is also on the anvil.

India today ranks 6th amongst the world's 10 largest manufacturing countries. The sector which contributes 16% to the GDP currently has a potential to account for almost 25% of the GDP and create up to 95 million jobs by 2025. The opportunities for employment are aplenty and we need a holistic action plan that covers every base — one that includes a skilling and re-skilling programme to increase employability and productivity, incentives for smaller enterprises to absorb a greater number of workers.

> ***"Jobs and productivity must be the pivots for social and economic framework"***

## Growing the economy, creating jobs, focusing on skills

We have grown by leaps and bounds in the decades since independence. However, our growth in the coming decades will be far more complex, as the economy matures and enters a new phase - one which is marked by sustainable growth - driven by expertise, innovation and socio-economic development. The rules of the game will change and so has our task of Transforming India. The nation is surging ahead as a manufacturing destination. Growth in exports are looking up. The economic scenario has brightened. All of these are pointers to the fact that the next few years will be crucial for India's growth and progress. As the economy grows, so will the demand for jobs. As per ILO forecasts, nearly 17.6 million people will be queuing up for jobs in 2017 alone. The questions looming large are: How do we create jobs to meet the rising demand? Secondly, how many of this prospective workforce are really employable? A recently conducted employability-focused study based on 150,000 engineering students, found barely 7% suitable for core engineering jobs. Employability therefore, will be a crucial factor if we are to address the issue of creating a skilled and productive workforce for India in the coming decades.

A lot of work is already underway to step up the momentum and get the economy on the growth path. The National Institution for Transforming India (NITI Aayog), has enlisted Government's support for manufacturing sectors with large-scale employment generation opportunities, which also have export potential. Such support would prove extremely beneficial in boosting the manufacturing sector, exports and employment generation as well. Several measures are also being undertaken to create an enabling environment to create a spotlight for India as a manufacturing destination. With all these efforts, exports are expected to touch nearly US$ 280 billion in 2016. India's businesses can remain competitive only when they have the trained and educated workers they need. We must strengthen our education and skills-training programmes to make sure our workers are getting the requisite training they need, and we ought to ensure that all those we train in high-demand skills have an opportunity to find work and contribute to our economy. The push should be to develop a mastery of skills and investing in high-skilled teams in every sector.

## A more targeted and coherent approach towards a value-creating economy

I believe that we can become a value-creating economy only if we develop a more targeted and coherent approach driven by innovation. This is the outlook we need to have as we embark on a new phase in our nation's economic development, one where we need to look beyond value-adding to value-creation. This is a huge shift in our focus which calls for making innovation more purposeful and pervasive. This push for value creation must resonate in every industry – small, medium and large - in a way that it becomes a competitive edge. It is about developing a “more targeted and coherent” approach - it is about coming up with new products, technology and services that will give them the advantage to carve out a niche in the global market.

## Innovation, enterprise and entrepreneurship can create jobs

With the global economy changing rapidly, it is becoming extremely challenging to sustain competitiveness. Technologies and products are becoming redundant and outdated and it is unbelievable how fast competitors can outpace you. We must accept the fact that there will be a heightened level of complexity and our industries must have the flexibility to adapt and the resilience to cope with change. So, instead of a single path and destination as a focus, the enterprise of the future will have to grapple around multiple pathways to be more competitive and a game-changer.

In an interesting article, 'The Importance of Young Firms for Economic Growth', authors Jason Wiens and Chris Jackson make a compelling point by saying, "Policymakers often think of small business as the employment engine of the economy. But when it comes to job-creating power, it is not the size of the business that matters as much as the age. New and young companies are the primary source of job creation in the American economy. Not only that, but these firms also contribute to economic dynamism by injecting competition into markets and spurring innovation." This point is relevant for any economy that is seeking to accelerate growth as entrepreneurship does inject the much needed dynamism and creates a competitive landscape with their ideas, innovation and enthusiasm. We must look at ways to boost entrepreneurial talent as it can be a strong force in driving innovation and more importantly, job creation.

Providing the right platform for young entrepreneurs and start-ups to flourish is equally important. It is heartening to note that the Ministry of Heavy industries and Public Enterprises, Government of India, in partnership with industry associations, has announced creation of a start-up centre and a technology fund for the capital goods sector to provide technical, business and financial resources and services to start-ups in the field of manufacturing and services. Support and collaborations such as this would greatly boost the entrepreneurial zest in the country.

The two-pronged focus should be, on one hand, to attract investments and continue to strengthen our industry clusters, and on the other hand, encourage a new generation of entrepreneurs, venturing into new growth areas that can bring in more employment opportunities and create jobs. There is no doubt that these new clusters can leverage our strengths in advanced manufacturing, applied sciences and disruptive technological change. The Government of India is focussing on 15 disruptive technologies such as data mining/Big-data, biotechnology, cyber security, nano-technology, smart manufacturing (3D printing, additive manufacturing), precision agriculture, advance energy storage, waste to energy recycle and reusing water, satellite-based technologies for identification, distribution and utilization of natural resources, to name a few. These are the sectors which will call for a continuous programme of skilling and re-skilling our workforce. This takes us ahead to the next destination – the importance of skill building for a new generation of employable workforce.

## Make in India - a global manufacturing hub needs skilled workforce to thrive

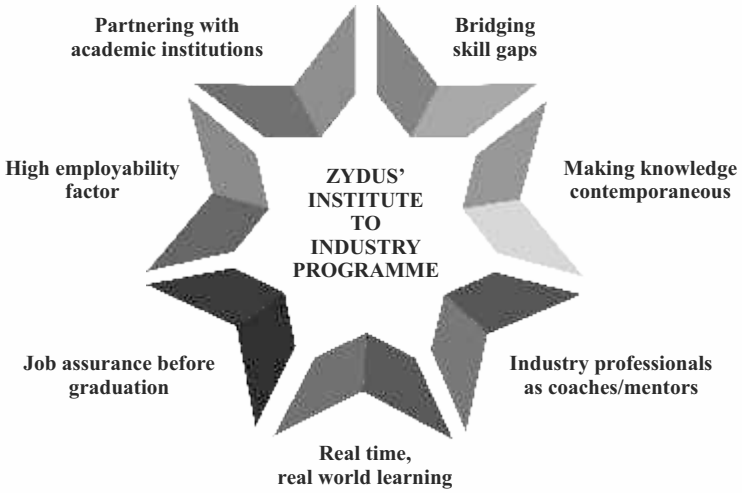
With a strong manufacturing backbone, India already has a solid base and combined with our advantage in innovation and research, I believe India is well-poised to be a manufacturing hub of the

world. On one hand, we will have a surge in employment opportunities, and on the other hand, we may face pressure in getting trained workforce. The question that is being asked is: Can our education move from merely knowledge enhancement to employability? Increasingly, concerns are being expressed on the employability of the graduates who come out. There are two concerns being voiced - one is the quality of the domain knowledge that is being imparted and the other is the relevance of the programmes and the courses that are being offered.

> ***"Providing the right platform for young entrepreneurs and start-ups to flourish is equally important"***

Underlining this importance of skill development, the Government of India launched the National Skills Development Mission on the occasion of the World Youth Skills Day in 2015 to create convergence across sectors and States in terms of skill training activities.

Supporting the vision of 'Skilled India' and employment generation, we, at Zydus Cadila have started a programme called Institute to Industry. As a global pharmaceutical provider with state-of-the art manufacturing plants in India we are constantly in need of a skilled and trained workforce. There is a vast gap today between formal education and the practical applications of this, required on the job. This often means that a person has to unlearn and relearn skills once he or she is on the job. It requires considerable amount of time and resources to help a person gain the "employability" factor.




To bridge this gap and help the youth of today become more employable, we at Zydus Cadila have been partnering with various academic institutions in Gujarat to promote skill and application based learning amongst life sciences and pharmacy graduates.

This opens the gates to advanced learning with high practical knowledge that is required on the job. It also makes candidates more ready for the work environment as they are exposed to regulatory requirements, quality protocols, technical understanding, high cost equipment, data management – all through professionals and subject experts who are highly proficient. We also impart training on additional curriculum in the final year of the students to make it more contemporary.

For undergraduates who are yet to complete their studies, to be able to gain these precision job oriented skills and an offer of employment with a global healthcare company is a big morale booster. It is also a step towards making the youth more employable in today's challenging and highly competitive workplace.

While Institute to Industry was all about partnering with academic institutions, we also approached the Government of Gujarat for a skill development programme for the rural youth.

We designed and launched a first-of-its-kind initiative introduced in the pharma industry called i-KVK (Industrial Kaushalya Vardhan Kendra). An MoU was signed by the Zydus group with the Government of Gujarat in 2014 and in a short span of two years i-KVK now has over 10 courses across pharma technical areas, preparing a skilled workforce for the industry.

The uniqueness of this course is that it nurtures a skilled workforce that bridges pharma and engineering, to meet quality compliance and regulatory requirements. The course curriculum has been developed in-house by our pharma experts and has been approved by the Gujarat Council of Vocational Training (GCVT).

A simulation centre has also been created for pharma technicians to train these students on machines and impart various technical and behavioural trainings to groom them as professionals. To motivate these young aspirants, in addition to the exposure and learning, they also receive a stipend, regular rewards for quick learning and punctuality, basic facilities like subsidised food, free transportation, etc.

Industrial Kaushalya Vardhan Kendra (i-KVK) has opened up newer avenues for youth in the rural towns. The need for a trained workforce has been mounting, with pharma exports from India steadily growing each year. The pharmaceutical manufacturing process is a highly technical one where several Good Manufacturing Practices and Standard Operating Procedures need to be followed to ensure quality as per global benchmarks.

A thriving economy, robust manufacturing sector, opportunities for job creation and engaging careers for the youth of India - as we forge ahead with this vision for transforming India, it would be inspiring to carry the thoughts of our Hon'ble Prime Minister of India, Shri Narendra Modi who said, “The more we give importance to skill development, the more competent will be our youth.”

---

*The author is President-Elect, FICCI and Chairman & Managing Director, Zydus Cadila*

# Enabling India's job renaissance: Not more cooks but a different recipe

*Manish Sabharwal & Sonal Arora*

*My Idea*

*Five labour market transitions are needed: farm to non-farm, rural to urban, subsistence self-employment to wage employment, school to work and informal to formal.*

Most parents, policy makers, and economists agree that jobs change lives in ways that no subsidy ever can. But there is huge disagreement on the role of the government in creating jobs; is it setting things on fire or creating the conditions for spontaneous combustion? We'd like to make the case that the "setting things on fire" view leads to industrial policy and economic stagnation and private sector cripples – animals bred in captivity find it hard to live in the jungle – that we had before 1991. It is almost important to recognise that India does not have a jobs problem (our official unemployment rate of 5% is not a doctored number), but a wages problem. The higher wages people are demanding can only be provided by formal jobs but 92% of our workforce still works informally, 50% of India's labour force that works in agriculture generates only 15% of our GDP, and only 11% of the labour force works in manufacturing.

Putting poverty in the museum it belongs needs raising productivity. The productivity of a country is a complex question that involves individuals, enterprises, legislation, and much else. As Nobel laureate Robert Solow said, countries don't need more cooks in the kitchen but a different recipe. With ten lakh kids joining the workforce every month for the next 20 years, we need merciless execution that focusses on five labour market transitions: farm to non-farm, rural to urban, subsistence self-employment to wage employment, school to work and informal to formal. Let us look at each one of them in more detail:

### The enterprise geography of work

On surface, India's entrepreneurship ecosystem seems healthy; 50% of our labour force is self-employed, and we have one enterprise for every four non-farm workers. But most of our enterprises are dwarves

> ***"India does not have a jobs problem, but a wages problem"***

(Only 11% of manufacturing companies in India employ more than 200 people, compared with 52% in China), vary considerably in productivity (there is a 22-times productivity difference between a firm at the 90th and 10th percentile by size in manufacturing), and 40% of our labour force comprises the working poor (people who make enough money to live but not enough money to pull out of poverty).

We are just not producing enough enterprises and workers with the productivity to pay or deserve higher wages. Of India's 6.3 crore enterprises, 1.2 crore do not have an office, 1.2 crore work from home, only 75 lakh have any tax registration, only 15 lakh pay the mandatory Provident Fund and ESI (employees state insurance) contribution, and only 10 lakh are companies. Of these companies, only 55,000 post at least a single job on an online job portal on any day. Only 17,500 companies have a paid-up capital of more than Rs. 10 crore.

India's regulatory cholesterol stunts enterprise growth. Improving the ease of doing business would create a Cambrian explosion of new venture creation and massively increase productivity among existing enterprises. This requires rebooting the thought world of the Medium and Small Enterprises (MSME) Ministry, improving access for non-collateral credit, getting rid of the labour and tax inspector Raj, implementing the goods and services tax (GST), growing the venture capital industry, moving employer- employee and govt. interface to a paperless –presence less and cashless ecosystem, freeing foreign investment, and getting rid of outdated laws.

## The physical geography of work

A difficult question around jobs is whether India is going to take jobs to people or people to jobs. India only has 50 cities with more than a million people; China has 375. We have 6 lakh villages of which 2 lakh have less than 200 people; there is no way they can become job magnets. At the same time, we also need to define urbanisation carefully; it is not just about shoving more people into Delhi, Mumbai or Bangalore. Considerable economic activity over last 10 years has come from Gurgaon near Delhi, Gachibowli near Hyderabad, Magarpatta near Pune, Whitefield near Bangalore and Mohali near Chandigarh. But unfortunately, these job magnets cannot be called smart cities. The problem is not just hardware or infrastructure; the problem is governance. New cities need real mayors because impotent or unelected city leadership creates dumb, not smart cities.

There are also natural conditions for strong regional disparities over the next 20 years; six states in the south and west of India (Gujarat, Maharashtra, Tamil Nadu, Karnataka, Andhra Pradesh and Telangana) will see 50% of the country's GDP growth but only 5% of the population growth. But 4 out of 10 children born in the next ten years will be in the three states of Uttar Pradesh, Bihar and Madhya Pradesh.

## The sectoral geography of work

The key challenges for this geography are low manufacturing employment and high agricultural employment. Both are closely related because the migration from farms is retarded by the lack of non-farm jobs, and the poor cannot afford to be unemployed so they are self-employed. Agriculture is not a solution because of low productivity; 240 million Indians produce less food than four million Americans. It is also important to recognise that not everybody can be an entrepreneur; our 50 percent self-employment is mostly working poor who cannot find wage employment. Most self-employment in India is self-exploitation. We don't think India will ever reach the peak of labour force in manufacturing that Britain, China or the US did at 45%, 31% or 28% but surely 11% of our labour force working in manufacturing is the wrong number. An agenda for manufacturing jobs includes the infrastructure of ports, roads, electricity and de-bottlenecking land acquisition. But it will also be substantially driven by the ease-of-doing-business initiatives.

## The education geography of work

This geography has three challenges that are contradictory: quality, quantity and inclusiveness. We are still fighting yesterday's war of enrolment in school education (even though enrolment is more than 110% in most states). The Right to Education Act needs to be replaced by a Right to Learning Act that focuses on outcomes.

We also need to create new pathways to higher education; the 105 lakh and 80 lakh kids who fail the Class 10 and Class 12 exams every year fall off in the rigid and mostly physical 10+2+3 system of today. In pursuing the Twelfth Plan goal of a 30% GER (gross enrolment ratio of kids between 18 and 25 in college), we must remind ourselves that college is not what it used to be. Fifteen percent of high-end security guards in India now have a college degree and electricians get paid more than engineers. So we need new forms of colleges.

We need to move from periodic interventions to architecting a self-healing structure. Our skill system needs to be better aligned with what employers want. Young job seekers are unable to get a job without experience, but it is unclear how they can get experience without a job. That is why Apprenticeships are important. If we had the same proportion of our labour force as apprentices as Germany does, we would have 15 million apprentices who would be getting training and experience on the job.

The proposed National Skill University is important to create new connectivity between skills and degrees. A skill university prays to the one god of employers, has only five percent of kids physically on campus (the rest in apprentices and distance education), and only five percent of kids are doing degrees (the rest are doing certificates and diplomas with modularity to go all the way to degrees).

The Ministry of HRD must recognise that massifying higher education requires separate regulatory regimes for small research universities (whose target would be global rankings) and large vocational universities (whose target is volume and employer connectivity). This needs vocational universities

which offer academic modularity (mobility between certificates, diplomas, and associate degrees), flexible delivery, and a new apprenticeship regime. We need to deregulate distance education because global MOOCs (massive open online courses) like edX, coursera, udacity, and so on cite India as one of their largest markets, and yet Indian universities are not allowed to compete nationally or innovate.

> ***"The Right to Education Act needs to be replaced by a Right to Learning Act that focuses on outcomes"***

### The labour law geography of work

Our labour law regime ensures that 90% of our labour force works informally. The biggest problem is a benefits regime that confiscates 49% of low-wage worker salary, a toxic trade union regime, and the criminalisation of politics, and an employment contract that is effectively marriage without divorce. We need to give our employees three choices in how they are paid their salary: opt out of their 12% employee contribution to Provident Fund (EPFO); choose to pay their 12% employer contribution to EPFO or NPS (National Pension Scheme); and choose to pay their ESI contribution to ESIC (ESI Corporation) or buy health insurance regulated by the Insurance Regulatory Development Agency. Today, ESIC and EPFO do not have clients but hostages.

The next wave of reform needs to be around inspections, Factories Act, definitions, and so on, and the tricky issue of hire and fire should be deferred for now or left to the states. We need to complete the consolidation of 44 central laws into four labour codes and give employers the choice of complying under the Factories Act or Shops and Establishments Act. But the broader theme needs to be decentralisation; the use of Section 254 (2) of the Constitution that allows states to amend central laws because 29 Chief Ministers matter more than one Prime Minister for entrepreneurship.

### The legislative geography of work

An important priority for the new government is improving the ease of doing business and we have five suggestions. First, we should implement the decision taken early this year of using PAN as the Unique Enterprise Number. Every company currently has multiple numbers that include Corporate Identity Number (21-digit), Tax Payer Identification Number for commercial taxes (11-digit), Service Tax Number (15-digit), PAN number (10-digit), Central Excise (PAN Number + 2 characters), Provident Fund number (11-digit), Profession Tax Registration Certificate (9-digit), Profession Tax Enrolment Certificate (9-digit), Tax Deduction and Calculation Number (10-digit), ESIC number (17-digit), Labour Department Registration Number (13-digit, but varies from state to state), Importer Exporter Code (10-digit), Shops and Establishments Act Registration (20+ digits), CLRA Registration (15+ digits), Labour Welfare Board (5-digit), and so on. Second, all government departments should have all registrations, permissions, and licenses online with open APIs within two

years. States must be given incentives and ranked based on electronic single-window compliance within a deadline. All new laws should be mandatorily born digitally native. Third, the Companies Act must be revisited because it has stopped distinguishing between closely held private companies, widely held public companies, and publicly listed companies. The current lack of nuance not only hinders entrepreneurship (most enterprises in early stages are not financed by formal venture capital but loans and equity investments from friends, family and self) but is creating a trail of compliance or structuring that needs expensive lawyers and accountants. The regulation of listed companies should be left to stock exchanges and SEBI. Revisit the more-than-15 filings required, and remove the ones for the ordinary course of business (management appointments, etc.). Revisit the liabilities of key management personnel or raise the threshold to Rs. 50 crore. Fourth, we must review our tax compliance framework to make it transparent, consistent, and digitization driven. Tax compliance should be raised by massive doses of technology, analytics, and big data. This will require a radical review of the organisation structure, culture, and incentives of the Central Board of Direct Taxes.

Most people overestimate what policy change can do in the short run, but they underestimate what it can do in the long run. India's new recipe around job creation has many anchors: macroeconomic stability, decentralisation to states, lower costs of formalisation, focus on manufacturing, whether for India or exports, and better human capital.

Our past policy narratives were about running away from something, rather than towards something, and mostly involved blaming external variables of opening balances rather than taking responsibility. But as Ghalib said "*Umar bhar Ghalib yahi bhool karta raha, dhool chehre pe thi aur aina saaf karta raha* (All his life, Ghalib kept making a mistake; it was his face that was soiled, but he kept cleaning the mirror)". There is a new narrative that recognises that the role of the government in Putting India to Work is not setting things on fire but creating the conditions for spontaneous combustion.

To paraphrase historian Samuel Huntington, "the gap between India's ambition and its reality is not a lie but a disappointment. And it is only a disappointment because its ambitions were very high." India made an unrealistic democratic gamble at Independence that has paid off. Now, we are finally taking sustainable steps on poverty with a focus on the 3E's. India's poverty is finally heading to the museum where it belongs.

---

*Manish Sabharwal is the Chairman and Sonal Arora is the Vice President, Teamlease*

# Strengthen the foundation pillars for job creation

*Rakesh Sarna*

*My Idea*

*We need to focus on skill development and the outlook towards vocational skills needs to be changed.*

Economy of jobs for any country depends on the employability of their human capital. The issue with economy of jobs in India is closely related to the issue of literacy in the country. Reports claim that India's literacy rate is at 71 per cent. However, this figure can be misleading when it comes to how many can actually contribute to India's demographic dividend. We need to address this challenge first. Focusing on literacy is not enough. Compulsory education is the foundation for an India that aims to be a rich storehouse of human capital in the world. We need to focus on skill development and the outlook towards vocational skills needs to be changed. Developing talent through better education and training go hand in hand. These together make the foundation that we need to strengthen; only then will we be well equipped to focus on job creation.

In India, there is often a social stigma associated with vocational skills and people are hesitant to send their kids to vocational schools. In the U.S. and Canada, in the late '60s, community colleges were introduced and some people considered it a shame to go to community colleges. However, if you see the results today – there are plumbers who are coming out after a three-year course and making a decent living with about $85 an hour. Community colleges have provided a medium to learn a skill which can provide gainful employment. So, while improving literacy and providing compulsory education is important, it is equally important to provide skill development opportunities.

While organisations such as the National Skill Development Corporation have attempted to address the issue of enabling and empowering the population in this respect, a lot of structural modifications in the economy remains unexplored. The issue of employability still remains and skills often do not match industry requirements. There is also a need to scale up and industry should be incentivised for that. Individual companies and

> ***"Developing talent through better education and training go hand in hand"***

organisations should take up initiatives to develop and promote these issues along with the government. It is not just the government's responsibility.

> ***"There will always be demand for more people in this sector"***

For instance, Taj group has partnered with Tata STRIVE, an initiative of the Tata Community Initiatives Trust, formed in 2014. Taj group's skill program in partnership with Tata STRIVE aims to build capacity to train youth for employment, entrepreneurship and community enterprise through specially designed courses to build skills across industry sectors. Taj Tata STRIVE has established hospitality courses at their centres that conform to the Taj standards. These include Housekeeping, F&B Service, Bakery & Confectionery and Food Production. As a part of the programme, the team goes into the interiors of the country and brings in 20-30 children aged 14-15 years. These children cannot read or write and are taught various skillsets of the hospitality sector. After this, they are also given stipends to support their families and are subsequently given opportunities to find a job. This is one small step forward. Likewise, if all corporates take up such initiatives, it will be a great service to the nation.

The hospitality business has a huge capability to train people with various skills, whether it is engineers, housekeeping, chefs/ cooks, event managers, administration staff, etc. People working in the hospitality business can be subsumed in several other sectors, be it restaurants, pastry shops, healthcare, wellness sector, etc. If we have to scale up skill development activities, the implementation has to be done by the industry. But, the government should steer the process. For instance, the government should consider incentivising industries like ours to skill more and more people.

Another aspect that needs to be focused on is the humanity issue. As organisations, we need to treat people well and fairly and we need to look after our people. But most importantly we need to equip them with a skill or an academic base which raises their self-esteem. In my opinion, the biggest cancer in our society is servility, which is not good for us. Industry leaders need to work hard to raise the staff's self-esteem. The only way servility will go down is if self-esteem goes up, and the only way self-esteem will go up is if we give them a good education.

At Taj, we make sure that we must live the culture of mutual respect that Jamsetji Tata set down when he established the Indian Hotels Company Ltd in 1903. The focus has been on ensuring that there is a better work-life balance for associates at all levels. To that end, a number of initiatives have been introduced. Taj is the first hotel company in India to stop split shifts (when a staff member does the breakfast shift and then the late afternoon/dinner shift on the same day). Taj offers its associates staff restaurants, so they can access the best food, prepared by hotels. All Taj associates now have two extra days off per month. Taj also offers crèches for associates to leave their children during shifts. In

addition, there are several initiatives in the pipeline such as, starting stores for associates where Taj can pass on the benefits of their bulk-buy prices to associates.

Going forward, one of the biggest challenges in skilling and reskilling will be to keep up with the changes in technology. If we take the specific example of the hospitality sector, it is largely driven by customer/ guest behaviour and the guests' needs and desires are changing rapidly largely due to the technological advances. Digital literacy is the biggest task at hand because even a housekeeping cleaner would need to learn how to use digital technology to be able to do his or her job. The nature of jobs in hospitality and related services sectors will change and, with that, a change in the required skillset will become mandatory.

Another aspect of technology changes that needs to be kept in mind is that it is going to replace a significant portion of manual jobs. For instance, there is a growing shift to a cooking method called sous vide, wherein the food is cooked in airtight plastic bags and this has made cooking tastier, easier to sustain at room temperatures, and much quicker. So earlier, there used to be 100 chefs serving a banquet of 300 people trying to prepare all the food, but now the work can be done by just five. But that is not a cause for concern.

I truly believe that India is going to continue to grow, in terms of infrastructure. Even in case of the hospitality sector in India, the number of travellers would continue to rise and hotel rooms will continue to grow as India is relatively underserved. Hence, there will always be demand for more people in this sector. However, the kind of skill sets and the training requirements are changing and that will determine how successful the quality and quantity of employment in the sector would be.

---

*The author is Managing Director & CEO, Indian Hotels Company*

# Relooking the employment framework

*Rashesh Shah*

*My Idea*

*To find effective solutions for job creation, we need to understand three problems - the problems of demand, supply and clearing.*

Indian economy has been growing at a rapid clip in the recent past. However, this has not been accompanied by an equally favourable rate of job creation. Global slowdown, enhanced productivity, increased automation, etc. are just some of the reasons attributed for the slow growth in jobs. Irrespective of the underlying reasons, limited growth in job creation is a definite cause for concern.

Objectively, we have to look at this problem in two parts – to start with, are we really measuring job creation in the right way in India and if yes, what we can do to create a sustainable, long-lasting stream of jobs.

**Measuring job creation**

The coverage as well as the effectiveness of our labour statistics needs to be evaluated. For example, India opened its private sector for banking around 20 years ago. But even today, if we were to question the number of jobs created by the banking sector, directly and indirectly, we would not be able to put down a number to it as it is not measured. We can do some basic calculations, maybe by counting the number of employees in every bank, but there is no ready indicator to show exactly how many jobs are added annually in the banking sector.

Not just in banking, the problem is in other sectors as well, insurance for instance. There is no way to assess the figures which are being reported both in terms of quantity and quality of jobs being created in India. As per some estimates, there are 22 lakh agents in the insurance sector, but no more than three lakh are productive or active. In-fact,

> ***"Job creation metric should be created by regulators, to set a common framework to gauge the jobs being created in respective domain areas"***

90% of insurance premium is sold by only 10,000 agents currently. Unfortunately, we do not have any official estimates of such numbers.

> ***"At present, job creation is more of an incidental outcome and not the central objective of policies"***

***Challenges involved:*** At the national level, there are several sources of data on employment and unemployment. While the National Sample Survey Office (NSSO) conducts surveys, the labour bureau has over the last few years started conducting annual employment-unemployment surveys. Additionally, labour statistics are also being collected through various administrative returns required to be furnished by enterprises by law. Very often, there is vast difference in the estimates from different sources, which raises questions on the reliability of data.

***What can be done:*** Data aggregation on employment across states, sectors, etc. may look like a mammoth task but if the government can implement initiatives such as Aadhar or Jan Dhan Yojana, measuring job creation is also not a difficult exercise. We could start with an approach that focuses on collecting data agency by agency for respective sectors. A job creation metric should be created by the regulators to set a common framework to gauge the jobs being created in their respective domain areas. This standard framework can then be followed by each agency to facilitate overall aggregation.

The International Labour Organisation (ILO) has done an assessment of the labour statistics system in India and identified that one of the key issues with data collection in India is the lack of statistical support available with labour departments in most states. They have recommended strengthening the statistical machinery at the state level, especially in their labour department and also suggested digitisation of all data. Recently, the Ministry of Labour & Employment has developed a single unified web portal for online registration of units, reporting of inspections and submissions of annual returns, etc. The state governments are also expected to join this unified portal gradually. It is hoped that this integration of data would help in frequent and regular availability of employment data in the near future.

## Employment generation

If we take the case of financial sector, even though we do not have exact estimates of jobs created over the last two decades, it can be easily said that as the sector has expanded rapidly, a significant number of jobs have been created during this period. However, in the last five years, there has been contraction of jobs in the sector, due to slow growth. At the same time, a noticeable shift towards automation in this sector has led to job contraction. For instance, in case of financial services, the job which was earlier being done by 20 people in a back office, is now being done by 8 people.

Once the growth returns, job opportunities will also rise. However, the dynamics of job creation will also change with the change in technology, innovation and global developments. Various policy decisions should thus take into account not only the growth aspects but also job creation.

## Employment generation should be the central objective in all economic policies

### Interlinkages in job creation

A policy framework for job creation should consider the employment linkages across different sectors. For instance, every additional person to be hired in the IT sector requires about 100 sq. ft. of office space. In short, 10 lakh jobs automatically create a need for 10 crore sq. ft. of office space. This in turn creates demand in the real estate sector and leads to further employment generation in the construction sector.

At present, job creation is more of an incidental outcome and not the central objective of policies. Take for example our policies on foreign investment. The key objective should not be the amount of FDI we require, rather, it should be how many jobs can be created with that investment. Therefore, an FDI which creates one million jobs v/s an FDI which creates 10 million jobs, needs to be treated differently.

### Need to celebrate job creators

Another aspect I would like to highlight is that we do not celebrate job creators. For instance, Infosys has created three to four lakh jobs. Similarly, Edelweiss has 7,000 people working and along with these direct job opportunities, we have created 4,000 indirect jobs as well. In total, these 11,000 jobs are supporting 20-30,000 people at present. We need to talk about job creation much more than what is being done at present.

In sectors such as hospitality and healthcare, we need a lot more jobs. This needs to be balanced aptly with the automation led by technology, innovation, etc., which could and will reduce jobs both in our country and around the world.

### Demand, supply and clearing

To find effective solutions for job creation, we need to understand three problems - the problems of demand, supply and clearing.

1. **Demand Side** - We can create and generate more demand through government driven policies as well as training in new skills. For example, disruptive innovations like Ola Cabs have created a whole new paradigm of job creation that was non-existent earlier. They have created numerous jobs for youth who would earlier not even have considered driving cabs as a feasible or economically viable option. At the same time, government investments can act as natural hubs for new job creation, both at skilled and unskilled level.

2. **Supply Side** - On the supply side, the focus should be on skill development. However, the problem is that there is a significant lack of investment in skill development. A lot is being done

but it is insufficient. Our education system needs to be aligned to industry needs. Various skill development initiatives have been introduced by the government but these have not yet reached their potential and scale, which is the need of the hour. The need is to recognize and incentivize these initiatives. In our organization too, we train the housekeeping people with soft skills such as English language, which helps them seek better earning jobs in places like Café Coffee Day, etc. The underlying philosophy is to add on to the existing skill sets of these employees, which helps not only in job enhancement but also their overall personality development.

3. **Clearing mechanism** - The third issue is that of clearing house mechanisms. In the agriculture sector, for instance, wheat and rice farming constitutes a large share while pulses comparatively do not have a substantial share. The Indian farmer is happy cultivating wheat and rice rather than pulses owing to a good MSP (Minimum Support Price) in the former. This creates a shortage of pulses - we have, in fact, not been able to allocate the resources efficiently till date. The problem somewhere lies in switching over from existing work. In India, many businesses which are outdated or unviable and are barely sustaining, face a huge problem in exits. Thus, the problem is ensuring a smooth and clean clearing mechanism in our system, whether it is farming or banking or any other field of work.

   The solution lies in becoming more market or demand oriented rather than state oriented. We need to allow the economy to reallocate resources. If a person who is working at Café Coffee Day wants to take a loan to buy a car and join Ola or Uber, he should have all the means going forward in terms of access to credit, approvals, etc. This requires some amount of smoothening and tweaking over the entire ecosystem. There is a lot of frictional cost present in the economy which needs to be gradually brought down. The barriers for people to become self-employed need to be reduced. Most importantly, clearing needs to be quick and easy to enable efficient allocation of resources.

India is on the brink of a phase of strong long-term growth. However, we need to ensure that the benefits of such growth accrue to the entire ecosystem, percolating down to even the grassroots levels. Job creation would be one of the key metrics in ensuring that. By ensuring simultaneous participation of the government & private sector, working towards a common goal and creating a secure, reliable measurement mechanism, we can develop an inclusive society where the benefits of growth are available to all.

---

*The author is Vice-President, FICCI and Chairman & CEO, Edelweiss Financial Services*

# Talent in the time of technology

*Krish Shankar*

*My Idea*

*Our goal should be to create a highly innovative and adaptable workforce of the future, which will shape the businesses of tomorrow.*

The world of the future that we are moving into is undoubtedly digital. Software and computing technology is irrevocably changing the way we live, and obviously the way we work and our employment prospects as well. There is much talk, in recent times, about so many of our jobs headed for foreseeable extinction, thanks to the takeover of robots and algorithms. What implications does that hold for employment in the technology sector – and also for the other businesses that our sector serves?

Boston Consulting Group has predicted that by 2025, as much as a quarter of all jobs currently available will be replaced by either smart software or robots. Blue-collar jobs – taxi driver, traffic controller, factory workers - are often cited as the first examples in this context. And yet, increasingly sophisticated machine learning is also convincing us that more and more "professional" tasks in our own industry like – code writing, software testing, data analysis, and in the industries we serve, previously thought to be solely in the domain of human expertise, can be efficiently taken care of by smart technology. In fact, Gartner expects that by 2018, 20% of all business content will be authored by machines and 50% of the fastest-growing companies will have fewer employees than instances of smart machines.

And yet, there are other aspects relevant to this conversation about the all too common apprehension about Artificial Intelligence and automation being forces bent on destroying humanity's professional ambitions. First is the fact that the smartest of today's (or tomorrow's) technology cannot stand-in for human consciousness, imagination or creativity. These are simply complex programs that can learn to do one thing very well for a specific purpose. Second is the even more interesting fact that as we see some traditional jobs being "outsourced"

> ***"As we see some traditional jobs being outsourced to computers, new avenues for employment are simultaneously being created"***

to computers, new avenues for employment are simultaneously being created as a result of these same technological advances, redefining the future of jobs across every kind of business.

These new jobs range from the conceivable – self-driving car mechanic, drone manager, human technology integration specialist and private air traffic controller – to the bizarre – fake Facebooker, robot (purchase) counselor, and med-chanic who will configure, repair or overhaul devices embedded in our bodies. And who knows what else! Because the truth is that with technology changing furiously, no one can say which jobs will be born in the future or how long they will last.

So, talent management is faced with a unique, first-time challenge – to prepare our people (both in the IT industry and in every other business we work with) to slip into roles that are as yet unknown, not once, but several times in their career.

Is that even possible? It is certainly tough, but far from unachievable. The tough part is to change, even reverse, the way we look at people and roles. Until now we have looked to fit people into rigidly defined job roles. It has all been about maintaining structure, hierarchy and order. In future, our talent management philosophy must tend to fluidity, flexibility and uncertainty-readiness. Instead of training people to merely specialize at tasks, we should help them become more innovative and adaptable. Some day we might even personalize job roles and responsibilities based on individual strengths.

This imperative is very likely strongest in the IT industry. One reason of course is that the industry is ground zero for technological change. However, the more important reason is that as strategic consulting partners to other businesses, IT companies need people who are more adaptable, stronger lateral thinkers and trained to be innovative. Such people are built not in a day, but over a lifetime of learning and nurturing the proclivity to learn.

**The IT industry is no stranger to learning**. The best technology companies have corporate training facilities and budgets that are the benchmark for other industries. But it is time for us to look beyond technology training, which is now practically no more than hygiene. Our goal should be to create a highly innovative and adaptable workforce of the future, which will shape the businesses of tomorrow. I foresee that a few years from now, the most valued IT roles will not be rooted in functional mastery, but in innately human qualities, such as imagination, creativity, problem finding, and collaboration with both man and machine.

That's a huge shift from the task and trade-focused approach to teaching and learning pervading most education systems around the world. This is why it is important for education policymakers and school administrators to work with industry in facilitating this change, starting from the grassroots.

Today, there is entirely too much focus on nailing a solution as quickly as possible, on finding quick fixes and low hanging fruit. This applies to our education system as well, which sets great store by book learning and quantifiable metrics. The goals of formal education must be broadened to include

learning to learn, the fostering of enquiry and curiosity, creativity and innovativeness. Indeed there is reason to believe that inculcating a sense of well-directed dissatisfaction can fuel the search for innovative solutions. Beyond that, children should be taught from an early age to seek excitement in problem discovery. They need to be taught to ask 'why' more often than 'how to' or 'how much'. Two skills that can change the orientation of education towards creativity and innovativeness are coding and making. I believe there is a strong case for declaring coding a core subject, like mathematics or language, if we are to transform our younger generations from great consumers of technology into great creators of technology. Children should also be encouraged to "make" with their hands as a way to bring various faculties – mental, physical, creative and emotional – together to fulfill a common purpose.

> ***"Talent of the future will appreciate that technology is actually a tool to amplify their own unique potential"***

Industry should pick up the baton from the formal education system to ensure that people are grounded in the learning mode. This means they must not only provide training in specific types of learning but also equip employees to be able to learn anything, however new. We call this "learnability" at Infosys. Learnability will be of paramount importance in the future when the definition of roles will be fluid, and employees will be expected to don several hats in their career. Along with imparting the latest technical and functional knowhow required at every stage of a career, enterprises should also inculcate cognitive skills in employees, enabling them to find problems that are still unknown and reimagine businesses in new models and for renewed relevance, for instance. It is important that students coming out of the university system are geared to both find and solve problems in a world changing at lightning speed. This means the education system should focus on developing critical thinking skills, a healthy curiosity for all things around and an appetite for experimentation without undue fear of failure – this will mean nurturing a bias towards knowledge application rather than knowledge assimilation.

**'Design Thinking' training can unlock innovation potential in people** (by which I mean all kinds of people in every kind of role). In the Design Thinking approach, human-centric innovation is the most important thing. Hence, innovators are encouraged to examine every need from the perspective of the end-user, with a deep sense of empathy. A core purpose of this exercise is to frame the real problems that people want solved. Once that desirability is established, it is time to generate ideas and then filter these through the lens of technical feasibility and commercial viability. Infosys has pioneered Design Thinking training in the Indian IT industry, and already trained nearly its entire workforce.

An interesting way of sustaining the creativity of employees and ensuring they can take to new roles with ease is to make innovation a part of their day-to-day jobs. This means following a simple

framework of innovation, which briefly, is as follows: learn from ongoing projects in the organization; look for improvement opportunities in existing assignments; think of ways to deliver value outside the scope of a project; articulate the benefits of implementing these innovative ideas using clear business metrics; and share what you have learnt freely across the enterprise.

Going back to where we started – the uncertainty of technology's impact on talent management – we must ask how organizations will get employees to coexist harmoniously and productively with not just automation, but autonomous technologies. The most important thing is to make employees understand that technologies for automation and Artificial Intelligence are not adversaries, but allies. By taking away routine, non-creative tasks, these technologies allow people to develop their humanness, marked by cognitive traits such as problem-finding, curiosity and hunger to learn and improve which are theirs and theirs alone. Talent of the future will appreciate that technology is actually a tool to amplify their own unique potential.

**So then, what role can governance play?** From a nation's standpoint, convergence of our agenda as professionals, as institutions with our national strategic focus areas like “Make in India”, “Digital India”, “Start-up India” and the like, will serve us well. The Ministry of Skill Development and Entrepreneurship, and other related industry bodies must be cued in as well. The Government, Industry and Academia must merge forces to identify challenges that must be tackled before the vision can be realized, and create a road map for future-age skill and competency development. The Government must also take steps to facilitate industry partnership with academia allowing them to exercise governance and control over investment on collaboration or research to realize return on investment.

**In conclusion**, it is clear that even as Artificial Intelligence and Automation help people to be more human, they will also enable enterprises to pursue more human-centric talent management strategies. For instance, by taking over dead-end or mundane jobs, these technologies will push enterprises to deploy displaced workers in more interesting pursuits, thereby maximizing value for all. Also, in redefining existing jobs or rendering them redundant, while creating entirely new, often unpredictable jobs, they would shift focus from task-oriented jobs to people-oriented roles. How will human resource managers fill positions, when the positions are no longer static or defined? One way of course, is the one we talked about earlier – through learnability, adaptability and innovativeness. But might they not also create roles to match individual strengths? I cannot think of a talent management strategy that is more people-oriented or value adding than that.

---

*The author is Executive Vice President & Group Head, HR, Infosys*

# Unlocking the employment potential in Media and Entertainment

*Uday Shankar*

*My Idea*

*Media and Entertainment industry can create both entrepreneurial and contractual employment at a large scale without the need for significant investments.*

Under the glare of its glamour, brand building and entertainment value, the scale of employment generated by the Media and Entertainment Industry often goes unnoticed. The employment potential of this industry has not received sufficient spotlight. One possible reason for this could be the misleading categorization of this industry that leads to incorrect perceptions about it being more about glamour and entertainment. At its very core, this is a creative industry and holds enormous potential to create employment over the coming years.

It is an industry that has grown from nothing in two decades to become a phenomenal job creator despite no planned policy initiatives. In fact, the only policy interventions have been to stifle the growth or regulate it rather than accelerate it.

Despite this, the industry generates large scale employment in the formal and informal sectors. It is a large employer in both direct terms and indirect terms across the value chain. One of the things we don't realize is the tremendous multiplier effect of the industry for other industries especially in the expansion of markets for branded products/services and in the process its impact on people. Without media, consumption patterns would be skewed and there would be information asymmetry in the market.

When it comes to employment, the Media and Entertainment industry has some peculiarities. One could broadly define the industry as where one can use creativity and intellectual capital to create a product which is consumed by people in whatever form of expression, be it movies, daily soaps, documentaries and in whatever medium, be it

> ***"10-20 million incremental jobs can be created in this industry without any huge investment from the government"***

the large screens in 3D enabled multiplexes or one's mobile phone.

> *"We are an industry that can provide employment to many who are at the margins of the economy today"*

This means that one doesn't really need a formal training to be a part of this sector. There is no need to have a graduate or under-graduate degree to become a creative entrepreneur. The potential is in-fact limitless. 10-20 million incremental jobs can be created in this industry without any huge investment from the government.

The real question that we should as an industry ask ourselves is what policy framework will enable the industry to achieve this potential. Everybody has a story to tell and if we can make sure that the access to those tools of storytelling can be democratized and the access barriers can be brought down, then the ability to monetize those stories can be unlocked.

We need to remove the challenges. This is a country where films have huge appeal. However, the business of films hasn't grown primarily because of limited number of movie theatres. The complexity of local laws, municipal laws, entertainment tax, etc. are real deterrents to growth. The supply, infrastructure and growth in this sector will always be behind the potential and demand in this sector. We need to ensure we create enough facilities that are already inexpensive.

There is an immediate need to develop a robust model for IP protection. IP protection enables the creative individual to hold on to a product and sell it at a market determined price. The lack of IP protection is the single biggest factor hindering growth in this sector. At a national level, it prevents large scale investments in creativity and good content. Imagine how disastrous it would be if a car manufacture builds cars and then someone can then sell these cars at any price without compensating him or use the cars at no price at all.

Several economies across the world have flourished by nurturing and protecting their creative industries. Outside of M&E there are a number of great examples, be it industrial design in Silicon Valley, product design (fashion and art) in Europe or engineering design in Britain. Not surprisingly these very same economies have a flourishing Media and Entertainment industry that is a significant driver of exports.

The criticality of IP protection can be illustrated with the example of the film industry in the last few years. One of the biggest contributors to the growth of revenues from films has been the nearly 40-50% rise in cable and satellite rights revenues. It is the value of the content that has delivered this growth. However, further growth is inhibited by IP protection. The digitization of cable homes in the country can unlock the huge potential in this sector as the capacity to carry content will increase dramatically. Additionally, the quality of the experience for the consumer will also go up creating a virtuous cycle that will allow the decentralization of content creation.

This industry can create both entrepreneurial and contractual employment at a large scale without the need for significant investments. Take for instance, league initiative in sports like Kabaddi. If rightly nurtured, such initiatives can create great opportunities, empowerment and hope.

While in most industries, there are several stories on how the rapid advance of technology endangers jobs, in the creative world of Media and entertainment, technology is becoming a strong driver of growth. The ubiquity of the camera and the availability of cheap computing power in one's phone has democratized this industry like no other. Distribution and Monetization need to now be the focus. These can be easily achieved through appropriate regulation that does not inhibit market based pricing of content and rigorous IP projection.

We are an industry that can provide employment to many who are at the margins of the economy today. The problem today is first of mind-sets. There is still a large overhang of news in the way the sector is looked at as a political tool and related to propaganda. The Media and Entertainment Industry at its core is first a Creative Enterprise. It needs to be nurtured as such. Only then can we realize the dream of making this an employment engine of scale and get recognized for its worthy place among all industries in the growth story of our nation.

---

*The article is based on interaction with Mr Uday Shankar, CEO, Star India*

# Travel and Tourism: A people centric sector

*Jyotsna Suri*

*My Idea*

*An integrated travel and hospitality policy is needed to enable the sector to support large scale job creation.*

The Travel & Tourism sector is one of the highest job providers in the country after agriculture. While it currently provides employment to about 31 million (both direct & indirect) people, this number is expected to rise to over 43 million by 2022. In-fact, the job creating potential of this sector can be gauged from the fact that an investment of Rs 10 lakh creates 78 jobs in the tourism sector while the same generates just 18 jobs in the manufacturing and 45 in the agriculture sector. Being employment intensive, the sector has enormous employment opportunities across the spectrum ranging from the lowest to the highest strata.

Earlier, hospitality was not necessarily the first choice of employment for many. But now, more and more young people are entering the sector, which is in tune with the demographics of the country. There have been reservations attached to women working in this sector because of the long working hours. However, women are now open to working night shifts and are much more forthcoming as companies take special efforts to ensure appropriate working conditions for women employees. For instance, Bharat Hotels (The Lalit), as a group, has a very strong framework for women employees and they can reach out to the management with any concerns or issues. The hospitality industry today has a decent ratio of women working in both front offices and service levels, though the examples do vary from state to state.

Overall, even though the working conditions have improved considerably over time, we need standards to be raised and maintained across the segments of this industry. We also need more engagement with communities. For instance, Bharat Hotels (The Lalit) has been pioneering unique initiatives involving the local people in the areas of education, art, culture, sports and environment protection. Take for example, Project Disha - an

> ***"The sector has enormous employment opportunities across the spectrum ranging from the lowest to the highest strata"***

initiative of the Lalit Suri Foundation. The project aims to provide accessibility of 'education leading to employment' for the local youth. A library has been set up under this initiative and efforts are being taken to improve teaching in the areas of English and General Knowledge at school level along with employment oriented vocational training in the hospitality sector. The program also provides computer literacy, personality development, spoken English courses and life skills training with a special emphasis on workplace behaviour to disadvantaged youth in the livelihood skill centers.

> ***"There is an immediate need to recognize the importance of hospitality sector and introduce measures to rationalize overall costs"***

A key concern for this sector with respect to employment is that there is a widening gap in availability of trained manpower. According to a study commissioned by the Ministry of Tourism, the current supply of skilled / professionally trained manpower is estimated to be a very dismal at 8.9% to the total requirement. There is also a need to skill people based on the changing dynamics of the sector. Gone are the days when a person in the front office would only be able to receive a guest at the entrance. These days, the front office employee should also be able to check in guests, be able to walk them up with their luggage, etc. This is the need of the hour as most of the hospitality companies are going lean since labour cost is a significant portion of total operational cost.

Another big challenge faced by the hospitality sector relates to retention of talent. Despite hospitality being a vibrant sector, the workforce often moves out to other sectors. Higher operational costs and lower margins in the hospitality sector make it difficult for companies to match the level of remuneration in other service sectors like IT-ITeS, Healthcare, etc. Development costs too have been a challenge in India as land costs accounts for 30-50% of the total development cost, while the same equates to about 15-20% internationally.

To move to the next level of growth and development and to enable availability of quality human resources, there is an immediate need to recognize the importance of hospitality sector and introduce measures to rationalise the overall costs. The hospitality sector in India has seen deterioration in profitability over the past few years. Earlier the return on investment (ROI) in the sector used to be 5 to 7 years, which has now gone up to around 15 to 20 years. With land available at exorbitant rates, expansion in this sector has been adversely affected. These challenges have a domino effect on employment as well.

In the absence of appropriate market conditions and due to inadequate policy support, there has been some level of stagnation in the sector. Unless expansion happens, the hospitality industry will not have the wherewithal to create huge employment opportunities despite the high potential. There is a need to focus on developing the sector through supportive policies.

First, we need an integrated travel and hospitality policy. Tourism industry has for long been asking for infrastructure status, to ensure availability of funds at lower costs. Second, a cluster approach is

needed for creating land banks for this sector, especially where pooled cost is much lower than the commercial rates. Third, there is a need for effective single window clearance to obtain various licenses. Fourth, rationalization of the number of tax levies and implementation of single tax regime is required. We look forward to implementation of GST in this regard. Fifth, it is equally important to train people with right skills.

Policy efforts to resolve the problems that have been plaguing the industry will improve the health of the sector and enable it to support large scale job creation. In-fact, the industry has a potential to contribute much more than the present share of 9% in country's total employment. The Government and the industry need to work together to reach that potential.

---

*The author is Immediate Past President, FICCI and Chairman & Managing Director, Bharat Hotels*

# Epilogue: The last word

*A Didar Singh*

As a former bureaucrat, and in this case the Chair of the Editorial Board for this book, I must have the last word! This initiative of a book on Jobs, was an idea that came from our current President, Harsh Neotia and getting it together was the job of Pranjal, our Consulting Editor and the team at FICCI led by Jyoti. They have done a terrific job in getting a large number of 'Captains of Industry' and prominent thought leaders to share their thoughts and suggestions through this book. The Industry leaders have spoken about their own experiences and offered insights into this serious but fascinating challenge before us. FICCI prides itself as being 'Industry's Voice for Policy Change', here we have heard many leading voices showing us the way.

FICCI has since inception endeavoured to be a Think Tank and influence the policy agenda of the country. In 2010, FICCI had developed a White Paper on Global Mega Trends and its impact on India guided by American Prof Jeremey Rifkin, Economist, Futurist and President of 'Foundation of Economic Trends' and author of 'Third Industrial Revolution (TIR)' co-authored by academic and industry leaders. The study focussed on emerging global trends of third industrial revolution, workforce displacements, emerging new business models and collaborative education models. The study was well received by both government and industry leaders but put aside as the majority felt that India was not ready yet to leapfrog into the future. This compilation of articles by FICCI establishes that in the year 2016, leaders across industry are on the same page and conversant about the 'Fourth Industrial Revolution (FIR)' and its impact on 'future of jobs' in India. Although the rapid pace of transition from TIR to FIR is somewhat disconcerting and makes one wonder what the future holds.

India is expected to become the most populous nation by 2025, with a population nearing 1.4 billion. This increase in population will also come with a demographic advantage as maximum share of the increase will be in the working age group of 15-60 years. To ensure that the dividend does not convert into a disaster, India needs to create employment opportunities for nearly 12-13 million youth that enter the workforce each year. The challenge is not just about creating jobs or work opportunities for the incoming workforce, but also to offset the potential job losses of the existing workforce that are likely to occur due to the changes in technology and other global developments. We know this.

> ***"The challenge is not just about creating jobs or work opportunities for the incoming workforce, but also to offset the potential job losses"***

All the authors in this book have emphasized the need to address the subject of work creation on a priority and have offered extremely judicious suggestions to cope with the imminent challenge. The views have

been varied and incisive. From RC Bhargava making the important point that manufacturing in fact creates several linked jobs in services; YC Deveshwar and Uday Shankar flagging IP as the key; Arun Maira proposing '5S' solutions for '5C' problems; to Mohandas Pai reminding us that India could be the supplier of workers and professionals to the world. Manish Sabharwal and Sonal Arora make the important distinction between taking jobs to the people as opposed to taking people to the jobs and Krish Shankar flags the 'design thinking approach'. Jyotsna Suri has emphasised the potential of tourism which Ritesh Agarwal has emphasized would be largely in the semi-skilled area. Both YK Modi and Habil Khorakiwala have talked of labour reform and Pankaj Patel of skills. Sanjay Lalbhai has focused on the potential of the textile sector whereas both Siraj Chaudhry and Anil Jain have highlighted the need to focus on the entire agricultural value chain. Sunil Bharti Mittal says that entrepreneurship is the key and Naina Kidwai has directed us towards 'Green jobs'. Harsh Neotia as well as Ashok Malik reminded us that technological change is making several jobs redundant and Rashesh Shah has observed that any solution must have both Government and private sector together in it. Habil Khorakiwala has stressed on the need for next generation reforms in education sector, which has also been emphasised by Rakesh Sarna. Each of these views and suggestions have been stimulating and relevant.

> ***"We have to prepare our workforce for new jobs that are on the horizon"***

Foremost, we need to create a workforce that is skilled and efficient so that it can effectively contribute towards the growth and development of the country. There is a need to have an integrated approach to education and skill development, which has indeed been proposed under the National Skill Policy 2015 and we look forward to seeing the results in a few years' time.

Skilling for employment should be central to all skill development programmes being implemented across the country. Industry has to make an important contribution here. The mismatch of skills and industry requirements cannot be addressed without industry's active participation. Many authors have highlighted examples of their companies, which are actively contributing towards skill creation for the larger good on their own. There is a need to scale up such activities to narrow the demand and supply gap. The Government can play the role of an enabler here. It could encourage industries in taking up this cause by incentivizing them. The recently introduced National Apprenticeship Promotion Scheme that incentivizes enterprises to take apprentices is indeed a step in this direction. Recently, FICCI had also spearheaded a study on 'Skill Development for Industry 4.0' in BRICS nations which was released in the recently concluded BRICS Business Council Meet at the sidelines of the BRICS Summit in India. The study revealed that China and Russia and to some extent Brazil have already put instuitional mechanism in place to deal with the impact of Industry 4.0 unlike India and South Africa.

Second, while we are equipping the prospective workers with appropriate skills, simultaneously we need to ensure that there are equivalent work opportunities when they actually enter the workforce,

otherwise we are preparing a recipe for disaster. A reality check shows that it is extremely challenging to create as many job opportunities as needed under the present conditions. Undoubtedly, the only solution to this problem lies in creating more and more entrepreneurs, who can in turn provide work opportunities to several more people. The key is more 'work', not necessarily more formal jobs.

The government has taken cognizance of the need to boost entrepreneurship and we have seen a host of positive measures being taken up to encourage start-ups and small enterprises. However, an important aspect that is critical to accelerate this trend relates to the societal outlook. Unless we, as a society, start appreciating failures as integral to entrepreneurship, we will not succeed in promoting the army of entrepreneurs that we need. Over the last few years, the phenomenon of new-age innovative start-ups has picked up pace and hopefully it can emerge as the strongest force in creating more and more job opportunities in times to come.

Third, we need to realize that India, along with other countries, is also expected to witness more and more automation in economic activities, as it will bring in greater efficiency. This will impact job creation as the routine manual jobs in manufacturing and services sector may eventually get replaced. In such a scenario, it is extremely important for the government to make policies keeping in mind these changing dynamics. Industry has to make the most of the technological advances in manufacturing and services sector. While some jobs will disappear, we have to prepare our workforce for new jobs that are on the horizon. A calibrated approach to automation will ensure minimum disruption in employment while maximising gains from technology led models of doing business.

This year, FICCI and Tata Strategic Management Group conducted a survey for business leaders (including board members, CXOs and other senior leadership) of more than 50 leading engineering companies in India on advance manufacturing trends. This was a first of its kind of survey for the Indian manufacturing industry. The survey's objective was to understand the relevance of the advanced manufacturing trends that included internet of things (IIOT)/Industry 4.0, robotics and augmented reality for the Indian manufacturing sector and its readiness to adopt them. It highlighted interesting drivers and restraints for adoption and recommended imperatives for the stakeholders. Over 75% of the respondents believed that the IIOT is the most relevant trend. Indian industry has already initiated the adoption of advanced manufacturing trends. Currently, 1 in 10 respondents indicated that they have already adopted one of the advanced manufacturing trends and IIOT was undoubtedly the most talked about trend.

Adoption of advanced manufacturing is critical to make Indian manufacturing globally competitive. Prohibitive initial cost emerged as a challenge in adoption of the advanced manufacturing trends as per the survey. Industry leaders and resource-rich companies definitely have an advantage in moving faster towards adopting these trends. Small and medium sized players should embrace a collaborative approach to drive faster adoption e.g., additive manufacturing is in many instances not viable for a small manufacturing setup in view of the associated high fixed cost of a 3D-printer. In such scenarios, innovative business models like demand pooling across companies can improve asset utilization. Interventions are required both at the policy level and industry front to ensure that Indian industry not just adopts but drives this trend.

FICCI is constituting a Committee on Industry 4.0 that would look into this new technology trend and support Government and industry's efforts in developing factories of the future.

We also need to have studies with long term projections for employment built upon plausible scenarios. The capability to ascertain such numbers accurately is, at present, constrained owing to non-availability of reliable and effective data on employment, sectoral or aggregated. Thus, the Government should work towards a framework to collect, collate and estimate the employment statistics covering all sectors as well as regions on a regular basis at frequent intervals.

Fourth, there is an urgent need to reform the labour laws and regulations. Unless the organized sector is given flexibility, there will always be a disincentive to expand and hire more people. As rightly mentioned in the book, the framework of labour laws and policies should be set with an understanding that people desire to work and employers want to hire. A large part of these reforms need to be initiated at the State level, which in-fact has started in some states like Rajasthan, Madhya Pradesh, etc.

Fifth, the extent to which the job opportunities are generated will largely depend upon the level of growth, especially in case of labour intensive industries like tourism, apparel, and food processing. There is a need to give a policy push to such employment oriented sectors. Additionally, it must be realized that given the future global uncertainties and the subdued global economic outlook, India's growth prospect hinges largely on domestic market. The current levels of 7-8 per cent annual economic growth will not suffice to generate the requisite level of employment that the country needs, and we need to strive for much higher growth.

Most importantly, our policymakers need to make job creation the centre-piece of all economic policy. At present, job creation is assessed as an incidental outcome rather than as the key reason. Every policy decision should take into account the level of jobs that will be generated or lost with implementation. The policies should thus be framed taking into account a holistic and integrated approach considering all interlinkages.

This book has been the result of collective efforts of some of the leading lights from Indian industry. It is also imperative to mention that by the time you complete reading this book; FICCI in partnership with NASSCOM will be accomplishing another benchmark study- 'Future of Jobs' with Knowledge Partner, EY. The research will analyze the key drivers that will reshape the landscape of work and identify requisite skills for the future. In addition to the outlook for existing roles, the report will also cover new occupations and fields of specialization which are likely to emerge in select sectors.

FICCI would like to thank each author for their contribution and we hope that this volume will prove to be an important input into the discussions on the future of work in India. I truly believe that with collective efforts of the Industry and active support by the Government, India will leapfrog to a brighter future.

---

*The author is Secretary General, FICCI*

*"Acceleration of economic activities in sectors with higher employment potential and promotion of entrepreneurship will prove to be effective antidotes to the threat of slowdown in job creation."*

**Sunil Bharti Mittal**

*"A big push to India's food processing sector, which lies at the intersection of agriculture and industry, will be a force multiplier in creating large-scale employment, enhancing farm incomes and combating agri-wastages."*

**Y C Deveshwar**

*"India will have to invest in Industry 4.0, also transform to a nimble demand led education system integrated with skill development."*

**T V Mohandas Pai**

*"The private sector has to win the trust and confidence of their employees and the people at large by visibly demonstrating their commitment to grow their industries, and enable them to compete at a global level. People must believe that the industries are being managed to achieve this national purpose, and not for the benefit of the entrepreneur and his or her family."*

**R C Bhargava**

*"India will have to find that happy mean between innovative technologies that transform manufacturing but don't create jobs; entrepreneurial energies at the bottom of the pyramid that could create service-sector employment; and a manufacturing story that could lend itself to telling but that by itself may not create too many jobs."*

**Ashok Malik**

*"The policy makers should recognize ten things which can be done to open the market and let new people come in and start operating or creating new products."*

**Ritesh Agarwal**