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## **Indian Manufacturing Sector: Competitiveness at Stake**

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Productivity is a matter of survival for any business. Higher productivity is sine-qua-non for “survival and growth” of business prospects. India’s series of economic reforms since 1991 have accelerated economic growth but not productivity. India’s productivity remained low compared to global but peers as well. High productivity is good for business, consumers and economy. Higher the productivity, higher the profit, lower the price. Productivity in manufacturing sector in the last two decades remains stagnant, but nobody sincerely has bothered to measure and improve. India’s various global indices, ranking and score relevant to measure productivity, including manufacturing productivity remains poor. India is ranked 71 on Global Competitive Index (GCI), while Management Score<sup>1</sup> is 2.60 against 3.38 of China & 3.22 of Japan. In spite of satisfactory GDP growth within range of 5-9% in last decade, India trails on most of the global indexes.

The GCI is developed on 12 pillars or clusters of factors, if those factors are merged into vision of entrepreneurship to take remedial measures to improve competitiveness. Majority of the factors are manageable by the promoters or entrepreneurs, and they are human resources. By proper plan, organizational structure, employing appropriate technology and skill development, productivity can be improved. By improving management score, productivity and competitiveness can be improved. India lacks in competitiveness and hence the productivity due to under managed human resources.

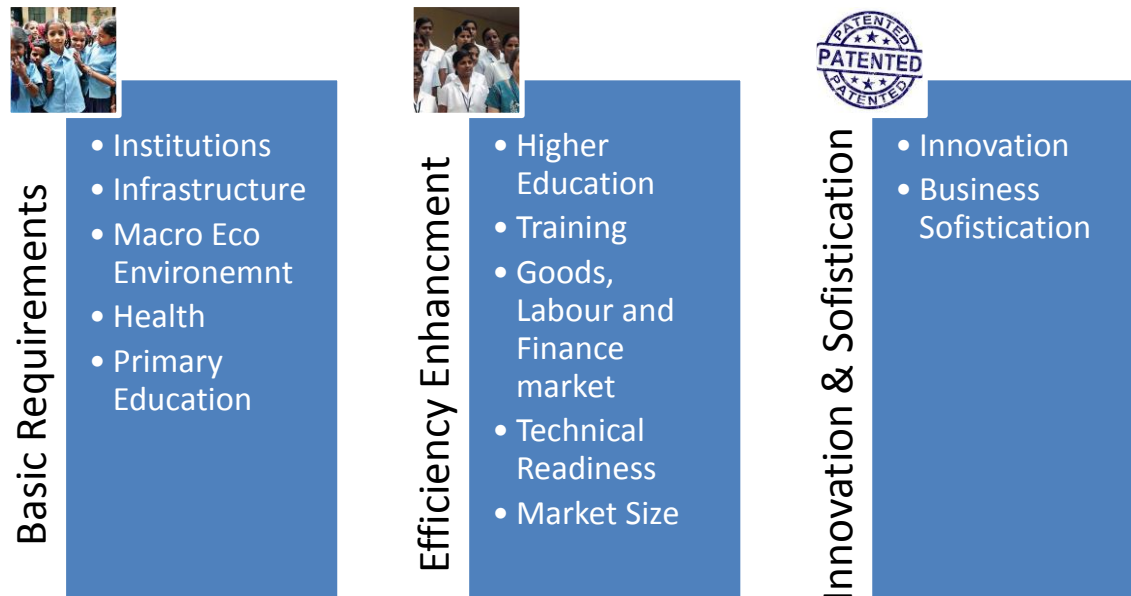
The industry to some extent look at their own human resources as part of employee performance management, but this research also aims to investigate; does the government policy affect productivity? Indian business environment is said to be heavily influenced by various government interfere and red-tapism. A business has to pass through dozens of windows varies in one state to another. The government policies cobweb is cumbersome and puzzle. The government policy is what is inferred by the person who implements it. Governments’ role in educating skilled force cannot be undermined. Government and entrepreneurs can jointly prepare more effective and efficient manpower based on study of health economics, human psychology, education, cognitive & non-cognitive capabilities and its effect on skill formation. India faces challenges of poor governance, corruption, slow decision making process, lack of accountability, low & obsolete management skill. Substantial time of top management is lost in

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<sup>1</sup> [www.worldmanagementsurvey.org](http://www.worldmanagementsurvey.org)

government compliances, which are sometime redundant, irrelevant and overlapping. This paper is discussing the hurdles in improving productivity through competitiveness.

### GCI Pillars of Competitiveness



The pillars of GCI (as outlined in GCR, 2009) are classified into the basic requirements (institutions, infrastructure, macroeconomic stability, and, health & primary education), efficiency enhancers (higher education and training, goods and market efficiency, labour market efficiency, financial market sophistication, technological readiness, market size) and innovation and sophistication factors (business sophistication and innovation). Hence, the policy makers have to ensure that these basic requirements are provided within the macroeconomic policy frame. The State also has an additional task of providing policy environment to firms that is conducive for enhancing their efficiency and attaining technological and managerial sophistication. In brief, the gains in terms of productivity, efficiency and competitiveness, have to percolate across sectors, regions and income groups so as to enhance the social welfare. We build a case that Indian manufacturing sector can be more competitive if available resources are optimally used. We have enough talent and entrepreneurship to increase productivity. But the will of the key stakeholders and the mutual will of all key stakeholders is the speed breaker and hence our inherent strength goes untapped. We suggest the ways and means to remove man made hurdles to be competitive, and rank up on GCI. Productivity can be measured my several ways. It can be absolute or relative. The more accepted standard ways to measure productivity are either Index number or residual of production function estimation. All methods are based on some assumptions.

The productivity signifies the measurement of how well an entity uses its resources to produce outputs from given inputs. A step further, a glance at the productivity literature and its various applications quickly reveals that there is neither consensus as to the meaning nor a universally accepted measure of productivity. Attempts at productivity measurement have focused on the individual, the firm, selected industrial sectors, and even entire economies. The intensity of debate over appropriate measurement methods appears to increase with the complexity of the economic organization under analysis. There are however, a number of different productivity measures that are commonly used. Choosing between them usually depends on the purpose of the productivity measurement and the availability of data. The highly effective measures to enhance productivity are organization structure, reporting system, autonomy, control, supervision, material, technology, execution plan, and design. Broadly following are the determinants of productivity, classified in to internal and external:

**1. Internal or factors which are within a businesses' control known as "levers"**

- Managerial practices
- Higher quality labor and capital
- IT and R&D
- Learning by doing
- Product innovation
- Firm structure decisions
- Managerial Practices/Talent

**2. Aspects of the operating environment — "external factors"**

- Productivity spillovers
- Competition
- Intra market
- Regulatory environment
- Input market flexibility

We discuss the relevant factors in Indian manufacturing context. The level of productivity in a country, industry, or enterprise is determined by a number of factors. These include the available supplies of labour, land, raw materials, capital facilities, and mechanical aids of various kinds. Included also are the education and skills of the labour force; the level of technology; methods of organizing production; the energy and enterprise of managers and workers; and a range of social, psychological, and cultural factors that underlie and condition economic attitudes and behaviour.

These variables interact and mutually condition one another in determining productivity levels and their changes. Thus, in any country one expects the level of technology, the skills of the work force, the quantity of capital, and the capacity for rational economic organization to be positively correlated. A country with low productivity is likely to have deficiencies on all counts; a country with high productivity is likely to score high on all. To put it differently, the numerous productivity-determining factors behave as variables in a system of simultaneous equations, with all acting concurrently to shape the outcome. Within this system, there are no grounds for assigning causal priority to one or a few variables. All interact mutually to determine the outcome. Within certain problem frameworks, however, it may be entirely appropriate and indeed essential for explanatory purposes to emphasize certain variables over others. Regulatory policies may impose barriers to efficiency or affect incentives to change productivity.

### **Managerial practices and Human Resource Management:**

Attitude is the most critical variable from top management to floor level worker. Happy employees are productive employees. "An employee with a positive attitude usually enjoys the work that they do and feels empowered and recognized for their contributions," said Henning. "An employee that is complacent and does not really enjoy their work, but is simply there for a paycheck usually does not produce at a high level, develops a bad attitude and generally drags a team down." A Mackinsey Report reveals that The latest study did reveal significant differences in management performance between countries. The US is at the top of the table with an average score 3.25, while India brings up the rear with average score 2.62.

Bad supervisor may more dangerous than no supervision. Employee's productivity is determined by their relationship with their immediate supervisor. When the bad boss fails to keep promises, never gives credit when due, makes negative comments, or blames others for their mistakes, the productivity level of their employees is significantly impacted." A poor supervisor is definitely the important factor that causes low productivity. Many Indian businesses is managed by traditional methods ignoring technical competency of the supervisor and merit based recruitment. Nepotism in promotion and measuring performance is chronic diseases in developing countries including India.

Health concerns, naturally, are a big drain on an employee's ability to be productive. Estimates show that 18 to 20 million American adults age 19 to 64 are not working due to a disability or chronic disease, or are not working because of health reasons. Poor workplaces, poverty and under wages leads to bad health of workers in India, says a new study by the International Labour Office (ILO). The cost of lost productivity, illness and death due to malnutrition is US\$10 to 28 billion, or 3 to 9 per cent of gross domestic product. Poor diet on the job is costing countries around the world up to 20 per cent in lost productivity, either due to malnutrition that plagues some one billion people in developing countries or the excess weight and obesity afflicting an equal number mostly in industrialized economies. The groundbreaking study, the first to examine workplace eating habits worldwide, says better nutrition in the workplace can raise national productivity rates, while workplace meal programs can prevent micronutrient deficiencies and chronic diseases, obesity with modest investments that can be repaid in reduction of sick days and accidents. Developing nations like India need to break the cycle of poor nutrition, low productivity and low wages.

Technical factors are integral part of manufacturing and service industry of 21<sup>st</sup> century. Productivity largely depends on technology. Technical factors are the most important ones. These include proper location, layout and size of the plant and machinery, correct design of machines and equipment, research and development, automation and computerization, etc. If the organization uses the latest technology, then its productiveness will be high. All the feel-good, psychological methods of improving employee productivity are great, but they're useless without the right tools. And the right tools mean the right technology. For an employee to be efficient and productive in today's job environment means equipping employees with the right gear. India produce thousands of engineers and technicians, but hardly 10% of fresh graduates are employable. There is need to focus on employability skills. The university courses and teaching methodologies are old age and ineffective.

Productivity is related to the production-factors. The production of all departments should be properly planned, coordinated and controlled. The right quality of raw-materials should be used for production. The production process should be simplified and standardized. If everything is well it will increase the productiveness. Many manufacturing units are far from urban centers so due to lack of proper housing and transportation, reaching to workplace with ease is impossible and after wasting huge time and cost to reach workplace, workers are demotivated to perform. The management should look into nearby housing and transportation to enhance productivity. This can also help in improving retaining rate of employees. Hardly average Indian industry employs global standards in production procedure, leading to low productivity.

How well the organization structure is will determine percolation of authority coupled with duty. Productivity is directly proportional to the organizational factors. A simple type of organization should be used. Authority and Responsibility of every individual and department should be defined properly. The line and staff relationships should also be clearly defined. So, conflicts between line and staff should be avoided. There should be a division of labor and specialization as far as possible. This will increase organization's productiveness. Personnel factors determine motivation level of employees. Productivity of organization is directly related to personnel factors. The right individual should be selected for suitable posts. After selection, they should be given proper training and development. They should be given better working conditions and work-environment. They should be properly motivated; financially, non-financially and with positive incentives. Incentive wage policies should be introduced. Job security should also be given. Opinion or suggestions of workers should be given importance. There should be proper transfer, promotion and other personnel policies. All this will increase the productiveness of the organization. Majority business in India ignores personnel management or human resource management as branch to improve productivity of manufacturing sector, in fact it is human resources which are ultimate unlimited resources to hike productivity above all other factors. Center for Economic Performance Study<sup>2</sup> reveals India on 13<sup>th</sup> position out of 17 countries under study.

Finance is the life blood of any organization. Well managed finance take balanced care of conflicting stakeholders. Productivity relies on the finance factors. Finance is the life-blood of modern business. There should be a better control over both fixed capital and working capital. There should be proper Financial Planning. Capital expenditure should be properly controlled. Both over and underutilization of capital should be avoided. The management should see that they get proper returns on the capital which is invested in the business. If the finance is managed properly the productiveness of the organization will increase. In their study, Nicholas Bloom et al<sup>3</sup> find that financial constraints are a binding factor for growth, notably in smaller firms. The study says that sale per employee have strong relation with GDP of the country and salary per employee. Many firms report access to finance or the cost of finance as a major obstacle to their growth. Although the variation across countries is large, firms in developed countries are less likely to report finance to be a constraint than firms in developing countries, and larger firms are less likely to report facing financing constraints than smaller firms. Amongst small firms in India<sup>4</sup>, firms that received extra credit as a result of a directed lending policy (which they argue were the most productive firms) had an annual return on these loans of close to 90 percent.

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<sup>2</sup> Nick Bloom, Stanford, NBER & CEP and John Van Reenen, LSE, NBER, CEPR & CEP, 2009

<sup>3</sup> Why Do Firms in Developing Countries Have Low Productivity?

<sup>4</sup> Suresh De Mel, McKenzie, and Christopher Woodruff (2008)

The manufacturing unit is not working in isolation. Its location with reference to location of input and output affect cost and convenience. Supply of labour and raw material near urban setting carry advantage over remote location of manufacturing facilities. Productivity also depends on location factors such as Law and order situation, infrastructure facilities, nearness to market, nearness to sources of raw-materials, skilled workforce, etc.

Management decides everything how organization will succeed. Their vision and strength of management impact productivity of organization and on rests on the factors. The management of organization should be scientific, professional, future-oriented, sincere and competent. Managers should possess imagination, judgement skills and willingness to take risks. They should make optimum use of the available resources to get maximum output at the lowest cost. They should use the recent techniques of production. They should develop better relations with employees and trade unions. They should encourage the employees to give suggestions. They should provide a good working environment, and should motivate employees to increase their output. Efficient management is the most significant factor for increasing productiveness and decreasing cost.

Despite India's rapid growth in the past two decades, total factor productivity (the efficiency and effectiveness with which inputs—such as buildings, machinery, and labor—are jointly used for the output of goods and services) in India is about 40 percent of that in the United States.<sup>5</sup> This may be related to the poor management of many Indian firms, which do not tend to collect and analyze data systematically, set and monitor clear targets for performance, or explicitly link employees' pay or promotion with their performance.

The textile industry is the largest manufacturing industry in India, accounting for 22 percent of manufacturing employment. The textile firms in this study had, on average, about 270 employees, assets of US\$13 million, and sales of US\$7.5 million a year. The firms were large manufacturing firms; they were in the top 1 percent by both employment and sales relative to other Indian manufacturing firms. They were also complex organizations, with several different factory sites, each of which included several multistory buildings operating 24 hours a day, 365 days a year. The factory floors were often dirty and disorganized, and their yarn and spare parts inventory stores frequently lacked any formalized storage systems. This disorganized production led to frequent quality defects (oil stains, broken threads, wrong colors, etc.) necessitating an extensive checking and mending process that employed 19 percent of the factory manpower, on average.

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<sup>5</sup> CEQA: Impact of Management Consulting on Firm Productivity in India, <http://cega.berkeley.edu/evidence/impact-of-management-consulting-on-firm-productivity-in-india/>



## **The Government Policies**

The government policy is what is inferred of when it is implemented. The policy is implemented at various stages and each stage has its own nuances. The person on ground how understands policy and how they implements determine the fate. The policy is framed at high level after detailed study of the relevant factors and with full knowledge. But on the ground those who are responsible to implement such policy at micro level hardly understands the rationale and have same self-drive to implement and same understanding as their bosses.

Policy percolation should be seamless & internalized. Merely designing per se does not suffice unless it is delivered as designed. There is huge transmission loss. Indian bureaucracy has inherent tendency to be cumbersome. It has to be trained properly and micro managed till the end results. Bureaucratic system is to be reformed as part of policy reforms. Reforms are required not only of the top services like civil service, but till the clerk from Chief Secretaries. Make all government employees accountable, efficient & effective. They should fixed for their responsibilities, but equipped with necessary skills & provide conducive environment, free from political interference, very common in India. Bureaucracy is seen as control tool, be now seen as facilitator & public managers.

Comparatively there is no much empirical study in India to understand and accordingly take remedial measures in health economics, human psychology, education, cognitive & non-cognitive capabilities & its effect on skill formation. Productivity per se is result of combination of factors as aforesaid discussed. Manufacturing units some time consider their human resource management and various management practices as important factor, but hardly is it thought of that concerned government employees have bearing on productivity on manufacturing industries and seldom are such HR policies designed to practice.

## **Quality Labor and Capital**

Human resource is an active means of production. The optimum allocation of resources of a country depends on the availability of human resources. The term human capital formation refers to the "process of acquiring and increasing the number of persons who have the skills, education and experience which are critical for the economic and the political development of a country. Human capital formation is thus associated with investment in man and his development as a creative and productive resource (Harbisson, F.H.1992). The concept of human resource has many different meanings both manpower and human resources refer to and mean people. Human resources can be equated with 'labour' in the sense of a factor

of production, or simply production. Human resource may also be viewed as a kind of natural resources or a people resource just as we have mineral and forest resources (Pattern,T.H., 1971)

Capital and land are passive factors of production but human-resource is active factor of production, which mobilizes capital and natural resources. Studies made by Schultz, Harbison, Kendrick, Abramovitz, Backer, Bowman, Kuznet and other economists reveal that one of the important factors responsible for the rapid growth of the American economy has been the relatively increasing outlays on education. The notion of investment in human capital is of recent origin. In the process of economic growth, it is customary to attach more importance to the accumulation of physical capital. Now it is increasingly recognized that the growth of tangible capital stock depends to a considerable extent on human capital formation which is the "process of increasing knowledge, the skills and the capacities of all people of the country (Harbison F.H. and Meyers C.A.1964. Underdeveloped countries lack the critical skills needed for the industrial sector and have a surplus labour force. The existence of surplus labour is to a considerable extent due to the shortage of critical skills. So these diverse problems are interrelated. Human capital formation aims at solving these problems by creating the necessary skills in man as a productive resource and providing him gainful employment.

Least developed countries are characterized by economic backwardness which manifests itself in low labour efficiency, factor immobility, limited specialization in occupations and in trade, a deficient supply of entrepreneurship and customary values and traditional social institutions that minimise the incentives for economic change. The slow growth in knowledge is an especially severe restraint of progress. India as fast developing economy have overcome basic hurdles, but has to do lot more to improve productivity like a developed country.

Human capital and skills has been pointed to as being a key driver of productivity across countries. In several researches, it is found that better managed firms have a higher share of employees holding a degree. It is perhaps unsurprising that having more educated managers helped, but we also found an equally strong correlation between the education of the non-managers and our management scores. It appears to be easier to rank more highly in management when workers are more skilled. Labour regulations can often be important safeguards for workers against unfair employers; however, they can also create a very rigid labor market and cause inefficiencies. The World Bank routinely ranks countries on the ease of doing business; an important component of this index is the Rigidity of Employment Index (REI). In its ranking, the REI considers the difficulty of hiring and firing employees, scheduling nonstandard work hours, and scheduling annual paid leave. India ranks poor on the overall indicators.

India labour force is not only comparatively less educated but lacks innovation, creativity and openness in scientific temper coupled with lukewarm similar restrictive production environment.

## **IT and R&D**

Technological change and capital accumulation as primary forces arises also from a recognition that they are essential and unique to large and systematic advances in productivity. Those gains that can be obtained solely through a reorganization of work or the use of better raw materials or the breakdown of restraining attitudes or practices may occasionally be dramatic. Indian companies are using meagre budget on Research & Development. India's poor record of new patent is proof of the argument. Patent filings worldwide grew by 9.2% in 2012, representing the fastest growth recorded in the past 18 years, according to the World Intellectual Property Organisation, with India recording 3.9% growth, while decrease of 5.7% in industrial design. India filed 43,955 patent applications against 652,777 in China and 542,515 in USA (2012). India granted 4,328 patent against 217,105 in China and 253,155 in USA. (2012).

## **Competition**

Competition is the key to productivity and growth in long run. Competition has long been pointed to as an effective driver of productivity. In more competitive environments, firms need to continuously work towards being more efficient and productive to survive. Competition law in India aims at increasing efficiency and productivity. "The main objective of competition law<sup>6</sup> is to promote economic efficiency using competition as one of the means of assisting the creation of market responsive to consumer preferences. The advantages of perfect competition are three-fold: allocative efficiency, which ensures the effective allocation of resources, productive efficiency, which ensures that costs of production are kept at a minimum and dynamic efficiency, which promotes innovative practices." In spite of strong competition law, poor execution and slow judiciary is the worrisome in India's healthy competitive environment. Unhealthy competition leads to exploitation of consumers and sometimes labours. A fundamental role for policy is to facilitate the operation of markets, and a robust, productive private sector is a central outcome of an efficient market. A study Competition and Labor Productivity in India's Retail Stores by World Bank concludes that low competition in retail sector leads to low productivity (Mohammad Amin, 2007). India's economic reforms have undermined the creativity and speedy execution of plan. The government executives are still of traditional mind set and lack technological savviness. There is no proper coordination amongst several agencies and hence rather than synergy, they act in detrimental to work in tandem.

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<sup>6</sup> Supreme Court of India Judgment in Civil Appeal No. 7999 of 2010 pronounced on 9 September 2010

## **Regulatory environment**

Productivity depends on government factors. Stability of government is the pillar of long term policy and its predictability is the soul of sound investment and business decisions. The management should have a proper knowledge about the government rules and regulations on one hand and the government should constantly study to optimize control vs. productivity. The government should only keep reasonable and necessary restriction and promote productivity. The rules should be clear and without ambiguity. The various government policies should promote and incentivized productivity, as it is the society and economy, beneficiary of higher productivity. They should also maintain good relations with the government. Improved education and reforms of the labour market are fundamental to improve productivity. Providing access to quality education is fundamental to the country's long-term economic success as is ensuring opportunities meritorious human resources. To boost productivity and promote the development of the formal sector, steps need to be taken to strengthen business environments and support the introduction of new technology, including through fostering competition, further reducing international trade and investment barriers and improving of corporate and strengthen the public governance by establishing accountability. Indian federal structure, three layer government, concurrent list and inter-check between legislation, executives and judiciary causes vagueness and unpredictability or flip flop in decisions. This lead to dilemma and low productivity.

Some of the relevant indices are indicating India's poor position. With an HDI value of 0.586 out of a maximum possible 1, India is 135 India's human development index against Russia's 57, 0.778, Brazil's 79, 0.744, China's 91, 0.719 and South Africa's 118, 0.658. India again is at tailing on 71<sup>st</sup> position in Global Competitiveness rank with China 28, Japan 6 and USA 3. India fairs poor in Global Resilience Index on 119<sup>th</sup> position while Brazil ranked 59, Russia ranked 68, and China, on 60.

As per OECD report, despite important economic reforms since the early 1990s, India still has an unfavourable regulatory and business environment, in particular for labour-intensive activities. Over the past few years India has introduced new policies to strengthen the environment in which businesses operate, including on competition, investors rights, business conduct and anti bribery. If implemented and continued, these reforms would play a key role in boosting India's growth potential by strengthening incentives for firms to invest, innovate, increase productivity and ultimately create more jobs in the formal sector. OECD emphasize the complemented by actions in other areas including improving the infrastructure and human capital. It says that, excessive regulation of product markets is a barrier to the diffusion of technology and lowers the speed at which labour productivity catches up to the level of the best performing economies. Despite progress, the overall regulatory environment in India is still distinctly

less favourable to competition than the average OECD country and some non-member countries. This reflects relatively restrictive regulation across all three of the broad regulatory domains assessed in the PMR<sup>7</sup> framework – state control, barriers to entrepreneurship and obstacles to trade and investment.

In spite of several reforms after 1991, nonetheless, overall administrative regulation in India is more restrictive than in other BRIICS and all OECD countries (Figure). Badly designed and administered regulations impose major constraints to growth and productivity and create strong incentives for small businesses to remain in the informal economy. The use of regulation as an instrument to reach economic and social policy objectives has increased dramatically in last two decades. But still there are failures due to persistent and common patterns of over-regulation, under-regulation, poorly designed regulation and implementation, and weak institutional capacities.

### **Key OECD Recommendations**

- Conduct an administrative simplification programme to reduce the burdens and costs on businesses.
- Create the necessary policies, institutions, and processes to implement a transparent, evidence based regulation-making system using regulator best practice tools.
- Mitigate risks of waste and corruption in the whole procurement cycle (from project design through the tendering process and to the contract management).
- Focus efforts to increase public transparency and reinforce public trust

In last two decades, India brought several policy measures to boost growth, in which it succeeded reasonably, but has not so in improving productivity. The human being is the center of sustainable development; equity in economic growth has a political character, its characteristics are defined and promoted by sectors of society in accordance with the expression and level of power that they have, as far as equity requires the political empowerment of less favored – e.g. women. Strengthening of democracy and citizens' participation is the foundation of sustainable growth. The United Nations' Millennium Development Goals explicitly link economic progress to the equalization of opportunities for women. These goals thus recognize the importance not only of raising the status of women, but also of narrowing disparities between women and men. For sustainable economic and social development to take place in any country, it is necessary that people participate in the political process. The process of participation is complex—and it is by no means clear that it is comprehensively inclusive. Therefore it is not possible to

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<sup>7</sup> Partnership for Market Readiness

assume that all sections of the population take part effectively in the political and democratic processes of society. There are many reasons why people may not participate—from apathy to a sense of helplessness. Women are one side of a coin, half in every respect and hence equal, then why inferior in sharing power?

India's development strategy placed a heavy emphasis on the creation of a well-diversified industrial base to realise the dream of industry-led development. In order to maximise growth from limited resources, the importance of increasing productivity, efficiency and competitiveness needs no justification. It may not be out of place that though the concepts of productivity, efficiency and competitiveness are indicators of performance, these need not necessarily move in tandem with each other. However, improving these indicators should be conceived merely a means to an end (i.e., social welfare) and certainly not as an end in itself. The employment and output generation within the manufacturing sector exhibits a major imbalance. According to the latest available data, the unorganised sector accounts for about 80% of employment and only about 33 % of income of the manufacturing sector. Hence we reiterate the need to improve productivity and efficiency of India's manufacturing sector. The contribution of TFPG to output growth for organised manufacturing sector ranges between 13 and 25 percent using alternative methodologies. The mean efficiency levels for the RBI<sup>8</sup> dataset ranges between 0.66 and 0.78. Moreover, the ratio of labour productivity of organised to unorganised sector ranges between 13 and 15 combined with the fact that about 80 % of the workers in India's manufacturing sector are in the unorganised sector.

A higher growth path on account of higher productivity is considered to be a preferable alternative as compared to that due to increased application of inputs. As regards the two concepts of productivity, viz., labour productivity and total factor productivity (TFP), these are pertinent for policy makers, since the former has a direct link to standard of living and the latter indicates the economical use of resources in the process of production. 'Productivity' per se is a descriptive measure of performance and it can be estimated independently for a decision making unit, whereas, measurement of 'efficiency' entails a comparison with a peer group and is a normative measure of performance (Ray, 2004).

The study notes that the estimates of productivity are sensitive to the methodology used, even if the dataset used remains the same. In view of this, the alternative methodologies can provide the range within which the estimates of productivity could be expected to lie. In this study, we obtained the range of TFPG (1980-81 to 2003-04) for organised manufacturing sector as a whole, between 0.92 and 1.81 pcpa, from GAA and PFA methods respectively, yielding the contribution of TFPG to output growth ranging from about 13 per cent to 25 per cent. Despite the fact that India is a fast developing economy, difficulties have led the Government to conclude that far more needs to be done to engender more employment

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<sup>8</sup> Reserve Bank of India, A Report on productivity

opportunities for the majority of Indians, to enable them to participate in the benefits of growth and to contribute to that growth. To do this they must have education and training that equips them for the labor market.

Indian industries were characterized by inefficiency, high costs and uneconomical means of production with pervasive government control. With a view to improving efficiency and global competitiveness, liberalization policy and economic reforms were introduced at the outset of 1990s. Post liberalization period is marked by much higher productivity growth and increased contributions from the service sector and the skilled-based manufacturing industries (Virmani 2005; Bosworth et al. 2006), which have possibly increased the wage premium for higher education. It is believed that India still needs a higher pace of reforms towards competitive markets (Bajpai and Sachs 1997; Fischer 2000).

Manufacturing units sometimes consider their human resource management and various management practices as important factor, but hardly is it thought of that concerned government employees have bearing on productivity of manufacturing industries and seldom are such HR policies designed to practice. Human resource is an active factor of production. The optimum utilization of resources of a country depends on the availability of human resources. Human resources can be equated with 'labour' in the sense of a factor of production, or simply production. Human resource may also be viewed as a kind of natural resources or a people resource just as we have mineral and forest resources (Pattern, T.H., 1971). Indian government set up is still of colonial culture, working in form rather than spirit. It is worthwhile to refer comment made by Prime Minister in 2014 about executives believes in ABCD, i.e. avoid, bypass, confuse and delay.

To improve productivity, India requires efficient government machinery, administrative set up and trained employees. Political process & administrative structure are required to be charged and to be used as economic drivers. The economic reforms have positive impact on growth, but have failed to improve productivity. This paper investigates the degradation of policy in transmission. Policy percolation should be seamless & internalized. Merely designing *per se* does not suffice unless it is delivered as designed. There is huge transmission loss. Indian bureaucracy has inherent tendency to be cumbersome. It has to be trained properly and micro managed till the end results. Bureaucratic system is to be reformed as part of policy reforms. Reforms are required not only of the top services like civil service, but till the clerk from Chief Secretaries. The employees' performance should measure in terms of delivery of government policies. India's bureaucracy is characterized by control rather than manage which manifests itself in low efficiency, few of the reasons why India demonstrate poor rank at 142<sup>nd</sup> position in World Bank's Doing

Business Report 2015 and 135<sup>th</sup> on Human Development Index 2014. This poor ranking shows the room for improvement in developing human capital and governance.

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