



MAKE IN INDIA – AN ACADEMIC PERSPECTIVE

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Abstract: There are anatomical transformation going on Indian economy through Make-in-India campaign; there will be need for a workforce of more than 3 billion by 2020, increasingly in the manufacturing and services sectors. India's 90% of GDP & employment of 75% is expected to be supplied by manufacturing and services sectors. The thrust is to realize National Manufacturing Policy (NMP) and Public-Private Partnership and enhance inflow of Foreign Direct Investment. India is vitally positioned to produce benefits of this transformation with large manpower and increasing pool of higher education and has been critical think in this campaign. India is serving the requirements of both global economy and domestic by creating globally admissible and competing higher education system. This paper provides an overview of the policies so far and recommendation of improvement in private industry encouragement and foreign collaboration and greatly promotes the need to increase commitment towards allocation to higher education, research & development and improve higher education in India and suggest ways to ensure the higher education remains affordable, accessible, qualitative and competitive in the era of Make in India.

Keywords: NMP, PPP, FDI, HE

Introduction:

India has exceptionally transformed in its higher education panorama over last couple of decades. It has constructed comprehensive access to high quality low-cost universities for students at different levels. India has not only drastically enhanced in its learning outcomes but also enhanced its enrolment numbers with well-planned expansion and student-centric learning model of higher education. Differentiated three-tier university systems have enabled universities to develop on their skills and strengths and cater different categories of educational requirements. India has also undertaken large-scale reforms to improve faculty-student ratios by composing teaching as attractive career path. Moreover, India has addressed long-lived pressure between equity and excellence by compelling use of advanced technology.

What is Make in India?

The current Government launched the Make in India campaign on 25th September 2014. The vision of Make in India is to grow national GDP from 15% to 25% contribution as seen with other developing nations of Asia and create additional employment opportunity of 10 million per year. Government expects to generate jobs and attract foreign direct investments (FDI) so

that India will transform into a manufacturing hub preferred around the world. The country is expected to rank amongst the world's top three growth economies and amongst the top three manufacturing destinations by 2020. It is an initiative of the government to encourage companies to manufacture their products in India. So government wants to boost the domestic manufacturing industry and attract foreign investors to invest in India. With the scheme, the life and destiny of India may get change in positive way. In this program Indian government takes responsibility to facilitate the creation of such a competitive environment. In India 65% population is less than 35 years of age which is immensely high. Make in India has introduced multiple new initiatives as well as facilitate job creation, foster innovation, enhance skill development and protect intellectual property.

Make in India has an ambitious vision but there are a few hindrances that stand in its way and foremost among them are inadequate infrastructure and manpower. It is a time to look India will be a leading global and youngest player in the world. India is now considered to be one of the most promising and largest economies of the world. The Make in India initiative has showcased India as a potential

manufacturing hub. This initiative is built on four pillars as explained below:

1. New processes: The government is introducing several reforms to create possibilities for getting foreign direct investments and foster business partnerships.
2. New Infrastructure: The government is integral to develop industrial corridors and build smart cities. Innovation and research activities are supported by a fast paced registration system and improve infrastructure for intellectual property rights (IPR).
3. New sectors: Make in India has identified 25 sectors to promote with the detailed information being shared through an interactive web-portal.
4. New Mind-set: Make in India is an initiative intends to change the mind-set and bring a paradigm shift in the way government interacts with various industries. Make in India campaign produce new day phrase zero defect zero effect. In the scheme doing business will be just got easier. Process of obtaining environmental clearance made online.

The paper relates the growth of higher education in India and suggests ways to ensure the higher education remains affordable, accessible, qualitative and competitive in the era of Make in India. Following steps can take by the university.

Skill Development and Higher Education

India is facing challenges due to limited resources demand for higher education. The demographics show that there has been quite good increase in number of universities from 620 to 760 between 2010-2011 and 2014-2015 at a CAGR of 5.22% respectively. Indian Higher Education is at critical crossroad where it has experienced rapid growth in higher Education and facing challenges due to limited resources for meeting the demand in this space. It is essential for all stakeholders, officials involved and interested in higher education sector to understand the confined and substantive changes that new education policy might bring in and to be prepared for the impending changes.

The objective of this research is to focus on Higher Education in India and Skill

Development for its young crowd. The study focuses on current challenges in higher education aspect. Some of the initiatives need to achieve excellence are also discussed.

Skill Development:

Advanced skill development and training is critical to provide good employment opportunities to the growing youth community and to sustain the high growth momentum. There is institutional structure that has been put in place but there is lot of scope to improve. There should be innovative approach and coordinated action needs to be carried out for skill creation, which has to be mainstreamed in the formal education system from class 10th onwards. Mission National Skill Development launched in the 11th plan has brought significant upshift in building and handling skill development programs. It has clearly defined core principles and planned a coordinated action plan. A three-tier institutional structure (Which is already in-place) lays down a solid foundation for skill development eco-system in India.

The Twelfth plan plugged the gaps identified in skills eco-system while building on the foundation that has been laid. National Skill Development Corporation (NSDC) is an important tier of the coordinated action plan for skill development, which made significant progress in skill development targeted particularly at the large unorganized sector at the state level. Support to NSDC would have to be significantly enhanced along with State skill development missions in all respective states and to be fully operational and effective during Twelfth plan.

For special emphasis on those sectors that have high employment potential a sectoral approach is essential. Standards may be set by the industry-led sector skill councils which must be made effective during the Twelfth Plan, the accreditation of certification processes should be done by independent, specialized agencies with certification left to the institutions. Skill Development Centers can be established in existing education and training institutions. This would ensure huge saving in cost and time. There is a need for a system of funding

poor people for skill development through direct financial loan or aid. Apprenticeship training as another mode for on-job training has to be remodeled to make it more effective and up-scaled significantly. There is obligation for united action in several important areas to ensure that skill development takes place in demand driven manner. A strong curriculum for skill formation has to be modernized on a regular basis to meet the demands of the industry and regulate it with self-employment opportunities. Authorized accreditation and certification structure needs to be revised and upgraded. There is a demand to build an elementary mechanism for providing access to the information on skill inventory on a real time basis.

Finally, Vocational training through Industrial Training Institutes (ITIs) and Industrial Training Centers (ITCs) need compelling and powerful expansion and modernization at the school level. There is an urgent need to revisit the scheme for up gradation of governments ITIs as Centers of Excellence through the Public-Private Partnerships (PPP) to implement it more effectively during the Twelfth Plan. National Vocational Education Qualification Framework (NVEQF) need to establish flexible learning pathways for integrated schooling on one side and higher education on the other. Public-Private Partnerships (PPP) in financing, service delivery, provision of workspaces and trainers training program should be promoted. Employment exchanges can be repositioned as outreach points. Removal of entry-barriers to private participation will be effective and needed, while putting in place an effective regulatory framework for coordinating the network of Private players and evaluating and analyzing results of various programs will be plus. All these issues have received thoughtful consideration during the Eleventh Plan; now operational details have to be worked out and specific initiatives launched during the Twelfth Plan.

The aim is to increase the workforce percentage which received formal skills through training and vocational education from 12 percent to 25 percent by the end of the Twelfth plan. This will be effectively

mean that about 70 million more people have to be imparted these formal skills in the next five years.

Higher Education:

With massive expansion of schooling and growing youth aspirations is creating a huge demand for higher education. Higher education is also essential to build a workforce capable of underpinning a, competitive economy. As a consequence, enrollment in higher education would have to be significantly increased in a demand driven manner during the Twelfth Plan. The process of broadening access, making higher education inclusive, and promoting excellence is already initiated during the Eleventh Plan must be consolidated and expanded further during the Twelfth Plan. Excellence is not achieved by mere provision of resources alone, hence push for excellence is especially challenging.

Several reforms in the regulatory framework are currently underway such as, quick redressed of disputes through educational tribunals, a proper accreditation structure and prevention of malpractices and establishment of a national level apex body like, National Commission on Higher Education and Research (NCHER) to ensure autonomy of institutions and provision for entry of foreign education provider sand enhancement of their standards. These reforms would have to be carefully coached within the emerging architecture of global higher education, carefully mixing external policy feedback with the country's own endogenous policy traditions. Once these reforms are in place, it is expected that some of the endemic problems of this sector would be resolved. However, the important issue of making large investments required in higher education would have to be addressed squarely by mobilizing resources from private sources and also from Government. In addition, specific actions in several key areas are required on priority basis through a comprehensive plan as outlined below.

Shift of Focus to Quality

There should be a strategic shift from mere expansion to improvement in quality higher education. For this, the focus should be not

only on larger enrollment, but also on the quality of the expansion. During the Twelfth-Plan, an additional enrollment of 10 million could be targeted in higher education equivalent to 3 million additional seats for each age unit entering the higher education system. This would significantly increase the GER bringing it in line with the global average.

A balanced and holistic expansion approach is needed to target under-represented sections of society. Thrust should be on improving and consolidating the quality and capacity of the existing institutions. New institutions may be set up in order to bridge regional imbalances and disparities across different disciplines and to address special economic, social and technological needs of the country. Further, traditional education must be added with skill-based studies and institutional differentiation should be encouraged so that institutions grow along their own growth trajectories without being clones of each other. The open and distance education methods could be deployed to augment capacity optimally. Also, in addition, the concept of Meta University aimed at collaborative and multi-disciplinary learning that redefines knowledge-sharing and knowledge-creation in the twenty-first century, could also be explored.

Enhancing Employability

There is a need for a clear focus on improving the employability of Indian graduates. Higher education is organized into 'General' and 'Professional' streams. General education which is an excellent foundation for successful knowledge based careers in the country, often fails to equip graduates with necessary work skills due to its poor quality. On the other hand, professional education is often lengthy, expensive and usually imparted in narrowly specialized private institutions, with little emphasis on liberal arts, which is essential for the development of intelligent able-minded citizens. For both these education streams 'General' and 'Professional', integrated curriculum with greater flexibility in choice of subjects and innovative pedagogic practices are needed to improve the quality and thus results employability.

Graduates now require the skills beyond the basics of reading, writing and arithmetic (the '3Rs'). Skills such as critical thinking, collaboration, communication and creativity (the '4Cs') are now important in more and more jobs. Accordingly, there is need to focus on the '4Cs'. Special emphasis on written and verbal communication skills, especially in English would go a long way in improving the employability of the large and growing mass of disempowered youth.

The Vocational Education and Training sector in the country is very small and this limited capacity is under-utilized due to poor quality and lack of social status. During the Twelfth-Plan, there is an urgent need to develop a huge sector offering short-cycle qualifications in the form of associate degrees catering to intermediate skills in the higher education area within the National Vocational Education Qualifications Framework. Such degrees would definitely carry with them social prestige, would be less expensive and academically less rigorous, thus catering to the needs of students whose abilities doesn't fit well with the formal education system. Emergence of this sector would ensure mobility for the pass-outs from the vocational sector and integrate them with the mainstream higher education.

Encouraging Public-Private Participation

Private sector growth in higher education should be facilitated and innovative. Public-Private Partnerships (PPP) should be explored and developed in the Twelfth-Plan by planning commission. Private higher education accounts for about four-fifths of enrollment in professional education and one-third overall. This growth trend is likely to continue in the Twelfth Plan. Currently, this growth is restricted to some specific areas and there are concerns about use of unfair practices and its quality. A clear policy is therefore required to manage private education and a transparent and statutory framework needs to be established for its operation for driving private growth further in a legitimate and balanced manner. The 'not-for-profit' tag in higher education sector should be re-examined in a more pragmatic manner so as to ensure quality without losing focus on expansion

and equity. Deserving private institutions could benefit with access to public funds in the form of loans, competitive funding for research and financial aid for students.

Research Culture and Faculty Issues

Quality faculty is currently a zero-sum game in India due to problem of inadequate number of qualified doctorates or other under educated teaching faculty. The pupil teacher ratio in universities and colleges as of 2014-15 was about 1:21. If the same has to be brought to a ratio of even 1:15, the number of qualified faculty has to be increased by at least 25% on an overall basis in the ecosystem. Unless the capacity of top quality doctorates or highly educated people is increased, higher paying institutes will keep searching for the good faculty. Institutes also need to understand and realize the aspirations of different teaching faculty and provide them with necessary engagement and growth opportunities which are in line with their own objectives.

Faculty crunch is the main cause of degrading quality and excellence of the higher education. We have to take efforts to train and update teachers and supporting staff. The prestige and reputation of high-impact universities rests on the work and commitment of its faculty members. Teacher's training must be scheduled periodically to achieve the goals. So initiative shall be taken to attract and retain the best talent as faculty resources. Their morale and academic processes be made more transparent. We have to network all higher education institutes, create an interface with all sections and sectors of society. With well planned expansion and a student- centric learning driven model of education, India has dramatically enhanced its learning outcomes.

We need to create an ecosystem that encourages innovation and research in a self-sustaining manner. We must bring back the 'lost' research culture of Indian Universities so as to improve teaching standards and create new knowledge hubs. Collaborative research, setting up industry incubation parks in Universities and institutions providing more research fellowships, promoting innovation through interdisciplinary research in emerging fields,

strengthening Inter-University centers etc., need to be emphasized in the Twelfth Plan. This would require more funding for university-based research and funding policies that would create right incentives for quality research and promote collaboration among institutions. Related to this, is the issue of faculty shortages which can be tackled through innovative ways such as collaborative information and technology-enabled learning and communication technologies (ICT). A complete overhaul of the Academic Staff Colleges conducts refresher courses for teachers is also necessary. Initiatives to improve the quality and availability of teachers in higher education need to be launched in immediate mission mode. With improvements in life expectancy, a growing pool of retired and elderly people is now available in the country. They have potential to enrich teaching-learning experience and also act as social capital for the society. It is possible to tap and convert their valuable acquired expertise into useful codified knowledge through a special Ph.D. program for senior citizens facilitated by liberal entry requirements.

Domestic patent: University have to look for domestic patent fillings across regional industries and technology area. The guideline for quality research output must be framed in University has also undertaken large scale reforms to make better faculty-student ratio by making teaching an attractive career path.

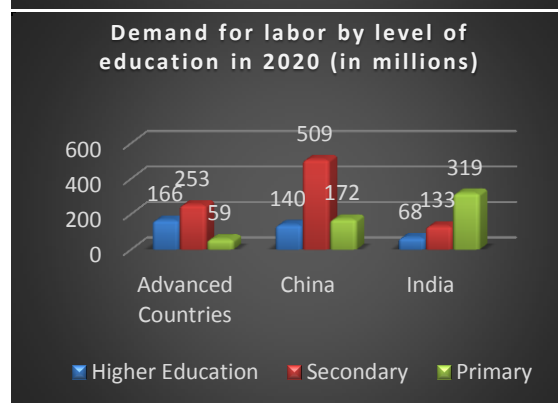
Accreditation centric system rather than regulation based

Accreditation should be at the core of regulatory arrangements and must have clear incentives and consequences. This would require many strong and independent accreditation bodies. As can be observed from the US higher education system, there is a market based structure wherein the Universities need to go in for accreditation which is then viewed and valued by the student. This can be the long term direction in India as the higher education system is too large to manage and regulate as such. Further, Indian accreditation bodies such as NAAC and NBA are not up to scale to meet the large demand which is also of repetitive

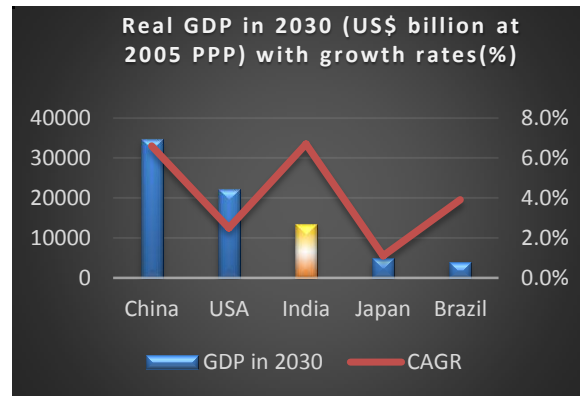
nature. Therefore, the government may need to either create other accreditation bodies, or preferably allow overseas bodies to operate in India, and ensure that global standards are being provided in India.

Higher Education Demographics

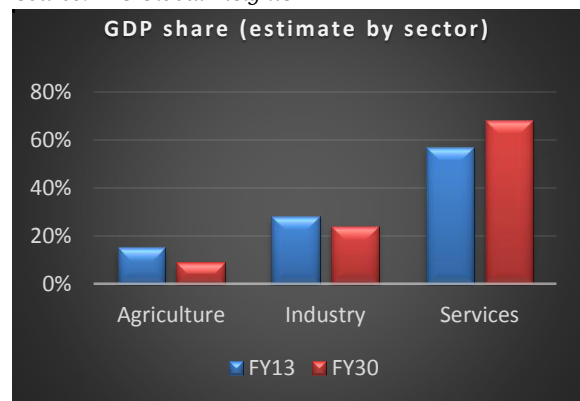
Shortage of highly skilled workers with a tertiary level of education is expected to reach 18 million by 2020 globally. This is likely to be largely met by higher tertiary enrolments, an increase in the retirement age of workers and the increased women participation in the workforce. Globally, 3.5 billion jobs are expected to be created by 2020 and the demand for highly skilled labor is projected to outpace that for low-skilled workers. The advanced economies, China and India are likely to drive demand for labor by 2020. This will require the large part of the workforce to have appropriate educational qualifications. The graphs below explain some of these scenarios:



Source: McKinsey Global Institute “The world at work- Jobs, pay and skills for 3.5 billion people”



Source: IHS Global Insights



Source: Planning Commission, EY Analysis

Economic growth and employment in India should also continue to shift toward the manufacturing and services sectors. India is expected to be the third largest-economy in the world by 2030. Skill-intensive industries such as manufacturing and services are expected to contribute more than 90% of India’s GDP by 2030.

Conclusion:

While it is important to address the existing shortcomings in our higher education system, it is more important to move towards a bold and aspirational vision. We strongly believe that a stratified structure that enables seamless vertical and horizontal mobility of students would be able to create the desired intellectual, economic and social value. The implementation framework suggests the student at the center stage to foster choice and innovation, an ICT architecture that will increase access, equity and quality, and a transparent governance framework that will enable self –regulation and autonomy. A framework for governance has been detailed

in the addendum document which proposes a mechanism based on outcomes and strong institutional accountability; clearly portray the role and responsibilities of the government as well as public and private higher education institutions.

India needs to move on the Make in India campaign and the enormous surge of interest that our Prime Minister has generated globally must foster industry academic interface, collaboration with reputed foreign universities to bring in new ideas and experience apart from facilitating ease of doing business. Higher education must be treated as a merit good and the asphyxiating control of the regulatory agencies like UGC and AICTE must give way to regulatory bodies like TRAI. Hopefully the new education policy will abdicate obscurantism and be in sync with PM's commitment to make India the super power of Asia through his deft Make-in-India movement. We have to develop healthy competition and promote collaboration among universities to achieve this important vision by identifying key areas which needs to be focused. We have to nurture, recognize and reward values of excellence, honesty, integrity and hard work. We must attract, prepare and retain the best and brightest minds of the country to become faculty members. India has to emerge as a regional hub of education and attracts learners and scholars from all over the world.

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