

Understanding Skill Development and Training in China:
Lessons for India

by

Santosh Mehrotra
Kamala Devi
Ankita Gandhi

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China has become a manufacturing giant in the last three decades. China has seen a structural transformation in its economy in the last two decades. Both output and employment share of agriculture declined in favour of industry and services. These changes have brought in challenges particularly in the sphere of skilling workforce. India needs to increase the share of manufacturing in its GDP to 25% by 2022. This study attempted to understand the systemic reforms undertaken by China to enable it to become manufacturing super-power, and the lessons India needs to learn from the success of China's vocational education and training (VET) system.

Vocational education in the Chinese school system earlier used to be introduced at the junior secondary level (or junior middle school) for students in the age group of 12-14 years old. Junior level secondary schooling is the last 3-year stage of the 9 years of compulsory schooling mandated by the nine-year Compulsory Education Law of 1986. However, vocational education at junior secondary level has been dwindling. After 9 years of schooling, only 11.6% of junior secondary graduates entered workforce. Of the remaining 88.4% students continuing to senior secondary those entering the vocational stream are 47% (almost half). It is only 3% in Indian context. The lessons for India are as follows.

The Integration of Manufacturing and Skill Development

If China is a manufacturing giant in the world, it has partly to do with the policy-makers' ability to: a) build a foundation of VET over many years; and b) continuously upgrade the TVET system in response to China's growing manufacturing share in world manufacturing output. India is planning to increase the share of manufacturing in GDP from 16 per cent in 2009-10 to 25 per cent by 2022. The 12th Five Year Plan has articulated the need for an Industrial Policy but the skills or TVET preconditions for such an industrial policy also need much more careful elaboration than has happened so far. The most important lesson from the Chinese experience is that the sheer scale and size of their TVET system dwarfs India's.

India's National Skills Policy (NSP) (2009) is being reviewed and the experience of China must be used in redefining the NSP.

Industry Participation

Students in the three-year vocational education stream at senior secondary level are required to spend the full third year as interns at local enterprises to acquire practical training and industry exposure. There is no such provision in India.

The local enterprises in China because of fear of punishment (taxation or negative publicity or mark on reputation) at the hands of local governments (empowered by the provisions of the 1996 VE Law) participate in practical training. In addition, the local governments help local enterprises by incentives such as allotment of land at subsidized prices, or preferential treatment in case of award of government projects. Such measures prove to be influential in encouraging industry to actively participate in vocational education and training and can be adopted in case of Indian firms as well. In India, there is a huge demand for skilled workers compared to supply and both the government and industry need to invest in training infrastructure and vocational education & training. While India's modern services sector has spent increasingly larger funds for training (e.g. Infosys), investment by Indian manufacturing firms on training has remained almost stagnant which has resulted in only marginal improvements in productivity of those engaged in the manufacturing sector. Only 16 per cent of Indian enterprises carry out in-firm training; by contrast 85 per cent of Chinese firms conduct in house training. In any case only the larger Indian firms do much in-firm training for their workers; small and medium firms by and large do not. This is one reason why the share of manufacturing sector in India's gross domestic product has, as a result, remained stagnant at 15 per cent for the past two decades.

Teacher Training

In China, teachers in vocational schools are required to undergo one month in industry each year, or two months every two years for their career progression and promotion. The practical training at the enterprises equips them with latest technology and evolving industry needs. In India, around 32 per cent of the trainers in vocational institutes do not have any formal certificates. 67 per cent of teachers in ITIs and 53 per cent in private ITIs were only ITI graduates. The percentage of degree holders was less than 10 per cent in both ITIs and private ITIs. The 12th Five Year Plan recognizes the importance of training of trainers for effective functioning of TVET system.

However, the scheme of vocationalisation of school education envisages the provision only for in-service training of 7 days for 2,000 existing vocational education teachers, and induction training of 30 days for 1,000 new vocational education teachers (Planning Commission, 2013). Collaboration with Chinese training institutes to send Indian vocational instructors for their training can be given considered.

Curriculum Design

In China, the curriculum of a senior secondary vocational school is designed such that, one-third includes general academic skills defined nationally by the Ministry of Education, another one-third is again nationally defined content associated with the particular occupation, and the remaining one-third defined again with respect to the occupational field is determined locally at the school level with the help of local enterprises. There is no such flexibility permitted in either ITIs (of the Ministry of Labour) in India, nor in senior secondary vocational schools.

Even more important is the fact that practical training in an industry setting is built into the 3-year senior secondary vocational education course. The first two years are spent by the student in school, while the entire last year involves practical training in an industry setting.

Financing of TVET

The responsibility for financing VET and academic school education in China rests with township and country government (i.e. local government). Only higher education is financed and managed by central/provincial government. The fiscal decentralisation that characterises China's system of governance thus benefits local enterprises (as the VET system is flexible and responsible to local needs) as well as the students in terms of employment.

In China, the 1996 Vocational Education Law requires that 20 per cent of the annual education budget should be allocated to vocational education and training. The fiscal decentralization of the Chinese (unitary) system of governance and autonomy of the local governments plays an important role in the implementation of vocational education. The local governments set aside a special sum or arrange a portion for vocational education from the local extra charges that they have decided to collect for education and in addition can appropriate more funds for rural vocational training. In addition, all enterprises as a policy are required to utilize 1.5 per cent of their payroll towards in-service training, which if they fail to do, should contribute an equivalent amount to the government to be used towards adult training. In India, there is a strong case for developing National Training Fund and this has

been recommended in India's 12th Five Year Plan as well. The Plan envisages setting up a training fund, in the form of tax levies to be collected from large and medium enterprises (to begin with), for mobilization and allocation of resources for skill development.

Stipend for Vocational Students

As in India, VET is not aspirational in China, and children and parents would prefer to enter the general academic schools, after completing 9 years of compulsory schooling. However, the Chinese government encourages the adoption of VE at senior secondary level by incentivizing it financially.

Encouraging students to opt for vocational stream in secondary high schools through measures like stipend for rural students for boarding and lodging, making tuition fee free of cost (since 2009) for all students has shown very positive outcomes for China's vocational education. Around 95 per cent employment rate of senior secondary vocational school graduates speaks for the external efficiency of China's TVET system. In India, as we noted above, at the beginning of the 11th Plan only 3 per cent students were enrolled in vocational courses at the secondary level (Planning Commission, 2013). And only around 15-20 per cent of vocational graduates are employable at the completion of their academic programmes (BCG CII, 2013).

Vocational Education and Training Law

One of the most important initiatives by the Chinese government has been the enactment of the 1996 Vocational Education Law of the People's Republic of China. The law provides the legal backing for vocational education and training in the country. The Law not only encourages students to take up vocational stream post junior secondary education, but also clearly demarcates the different roles and responsibilities of the various stakeholders in the TVET system: Ministry of Education, Ministry of Human Resources and Social Security, education and training schools and institutes under the two ministries, local governments, and enterprises. It also contains provisions for development of the rural economy by promoting technology and rural vocational education. India needs in the 12th Five Year Plan a Vocational Education and Training Act, partly in order to enable joint certification of VET by both government and private institutions/industry which is not current possible.