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469A Bukit Timah Road
#07-01, Tower Block, Singapore 259770
Tel: 6516 6179 / 6516 4239
Fax: 6776 7505 / 6314 5447
Email: isassec@nus.edu.sg
Website: www.isas.nus.edu.sg

Establishing Foreign Technical Training Facilities in India: The Option of Haryana

Amitendu Palit and Sasidaran Gopalan[1]

Executive Summary

A paper published by the Institute of South Asian Studies (ISAS) in September 2009 on "Skills Development in India: Challenges and Strategies" analysed the deficiencies in India's technical training infrastructure.[2] The paper argued that expansive efforts to build skills in the country through the National Skills Development Project (NSDP) contain significant opportunities for foreign technical training providers. This paper probes deeper into such possibilities and aims to identify a specific location for establishing training facilities.

The paper examines India's technical training capacities across regions to determine the relatively weaker areas. The southern region of the country is found to have facilities far better than the rest: not only does it have more institutes offering both degree and diploma courses, it has larger intake capacities as well. Though statistically the training capacities in the northern region appear to be as developed as those in the west, the paper argues that the north is actually backward in this regard since it not only has more, but also bigger states than the west. The average state-wise numbers of degree and diploma institutions offering technical courses are much higher in the west compared to the north. The west has benefited from the larger presence of private institutions offering technical training – an aspect where the north appears to be lagging far behind.

The east is found to be India's weakest region in terms of technical capacities. The region's backwardness is particularly disturbing, given that it includes the entire north-eastern part of the country. From a supply-side perspective, the east and the north are clearly the areas where new technical training facilities are needed the most. Between the two, however, the paper argues for the facilities to be set up in the north. This is because from the vantage point of a new foreign technical training service provider, the north is expected to offer more agglomeration advantages than the east. Among the northern states, the paper specifically recommends Haryana as a prospective location.

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[1] Dr Amitendu Palit is a Visiting Research Fellow at the Institute of South Asian Studies, an autonomous research institute at the National University of Singapore. He can be reached at isasap@nus.edu.sg. Mr Sasidaran Gopalan is a Research Associate at the same institute. He can be reached at isassg@nus.edu.sg.

[2] See ISAS Working Paper No. 89, "Skills Development in India: Challenges and Strategies", Dr Amitendu Palit, Visiting Research Fellow, ISAS, 17 September 2009 [Accessed at http://www.isasnus.org/events/working papers/88.pdf].

The paper discusses the several distinct advantages of Haryana that make it an ideal location for the establishment of a new technical training centre. The first among these pertain to the state's strategic geographic location. It is not only a 'gateway' to the rest of the northern region; it is also the largest constituent of the National Capital Region (NCR). By virtue of figuring in the NCR, which is one of the country's most economically dynamic urban zones, Haryana has benefited significantly from growth impulses generating in the national capital. The latest among these impulses include the massive infrastructure upgrading taking place in the NCR due to the forthcoming Commonwealth Games.

Haryana is one of India's rare industrialised hinterland states. It has a strong industrial base comprising automobile assembling and component manufacturing industries, agro-based and food processing industries, garments, bio-technology and construction industries. It has also emerged as a key information technology (IT) and software hub. The presence of a large number of multinational and domestic firms has led to the growth of a cosmopolitan, English-speaking workforce in the state that has a niche demand for learning new skills. Haryana has been attracting migrant labour from the northern and eastern regions of the country on account of its flourishing industries. These labourers comprise an important segment of the potential group of learners from the viewpoint of technical trainers. The movement of these labourers as well as other professionals to Haryana has been facilitated by the state's position in the core highway network of the country, connecting it to other regions.

A few other factors work in Haryana's favour. These include a stable political climate, which enables industrial policies to work towards an easier acquisition of land, a large number of educational institutions and a high per capita income. The paper argues that given the high per capita income in Haryana, foreign training providers can be assured of imposing market-oriented fees for different courses. Furthermore, the presence of several domestic private institutes facilitates the process of locating an ideal collaborator for the initial entry in the Indian market. The paper concludes by arguing that the diverse industrial base in Haryana generates demand for a variety of technical training skills pertaining to engineering and design where Singapore has proven its competencies, and urges Singapore training providers to look closely at Haryana as a possible investment location.

Introduction

This paper is an extension of the findings and analysis presented in an earlier ISAS Working Paper on "Skills Development in India: Challenges and Strategies". The paper had taken note of the deficiencies in India's technical training infrastructure and the ambitious targets set out in the NSDP. The paper had argued that the implementation of the NSDP is likely to create significant opportunities for foreign technical training service providers. The current paper probes deeper into this aspect and tries to identify a possible location for establishing foreign technical training facilities in India essentially from a Singaporean perspective.

Choosing the appropriate location for establishing new training facilities is hardly an easy decision. India is a large country with pronounced heterogeneities between its regions and states in levels of industrial progress, manpower development and technical training facilities. There is no doubt that India's current technical training infrastructure is conspicuously limited in both scope and size, given the country's enormous needs for building skills.[3] Notwithstanding a conscious realisation of the macroeconomic dimension of the issue, investing in the establishment of new training facilities necessitates a careful choice of location. Such a choice is expected to be governed by a variety of factors including economic, industrial, infrastructure, governance and related determinants. However, in order to identify the appropriate location it is first necessary to identify the regions that have relatively weak technical training infrastructures compared to the rest.

Region-wise Technical Training Facilities

A geographic (region-wise) breakdown of India's government-owned as well as privately-managed professional educational institutions offering degree and diploma courses in different technical and applied disciplines are presented in Annex 1. The northern, southern and western regions of the country account for more than 80 percent of the total institutions between them. Superficially, this implies that all three regions are evenly endowed in terms of the presence of technical institutions, with the eastern and central regions lagging behind. A closer look at the numbers, however, reveals more interesting insights.

In the first instance, it is important to note that India has more institutes offering degree programmes than diploma programmes. There are 5,192 institutions offering degrees as against 2,028 institutions offering diplomas (Annex 1). The institutions offering degrees are mostly affiliated colleges of different universities that have been allowed by the University Grants Commission to run courses that enable students – on successful completion – to obtain degrees from the universities to which the colleges are affiliated. In recent years there has been a veritable explosion in the number of private institutions offering degree courses. Out of the 5,192 degree-awarding institutions, only 755 are government-owned while the remaining 4,437 are privately-owned (Annex 1). The proliferation of a large number of private institutes offering degrees has raised serious questions regarding the nature and quality of the courses being offered by the institutes as well as the 'employability' of the graduates.

[3] India currently has facilities for training 3.1 million people per year. This is hardly adequate given the entry of 12.8 million new people per year in the country's work force. See Palit (2009), *Skills Development in India: Challenges and Strategies*, ISAS Working Paper 89, 17 September 2009; http://www.isasnus.org/ events/ workingpapers/88.pdf [Accessed on 21 November 2009].

The fewer number of institutes offering diplomas compared to those offering degrees highlights another important structural lacuna in India's technical training infrastructure: the predominance of longer-duration degree courses over shorter duration modules. Short-term diplomas and certificate courses not only offer students more flexible choices, but also enable them to acquire 'job-oriented' skills more quickly. However, India's technical training infrastructure appears to be suffering from a conspicuous lack of flexibility and adaptation in this regard.

The southern region of the country leads the rest both in the number of institutions offering degrees as well as diplomas. The south has 2,421 institutes offering degrees, while the north, west and the east have 1,182, 868 and 361 respectively (Annex 1). On the other hand, the south has 719 institutions offering diplomas while the north, west and the east have 450, 515 and 220 institutes respectively. The southern region's numerical dominance is attributable to its housing of almost 50 percent of the total private institutes offering professional technical courses in the country (Annex 1). In comparison, the north and the west show some interesting contrasts. The north has more institutions offering degrees while the west has more in diplomas. However, the north's lead in institutions offering degrees needs to be carefully interpreted since the region comprises as many as nine states, including some of India's largest states such as Uttar Pradesh, Rajasthan and Bihar, while the west has only four states (Annex 1). Indeed, the average number of degree institutions per state is much higher at 217 for the west as compared to 131 for the north.

Given that the northern region has not only more but also bigger states than the west, the north having fewer institutions offering diplomas reflects poorly on its ability to establish adequate technical training choices. The west fares much better in this regard. Indeed, it has significantly benefited from private enterprise in this respect as it has almost 33 percent of the country's total private institutions offering diploma courses. The corresponding share of the north is only 19 percent (Annex 1). There is little doubt that the north, comprising the Hindi heartland and some of India's most densely populated states,[4] lags significantly behind the south and the west in facilities required for equipping its workforce. The situation is even worse in the eastern region of the country. The lack of facilities in the east becomes more conspicuous given that the region in the current context includes the entire north-eastern[5] part of India as well.

It is important to look at the regional distribution of India's engineering institutes offering degree and diploma programmes as a large chunk of technical training requirements pertaining to different aspects of engineering disciplines. The trends are broadly similar to those observed for overall professional technical training institutes. The south dominates the rest both in the number of engineering institutes as well as the shares of the institutes to the total. The region has almost half of the country's engineering colleges offering degree programmes: 1,095 out of a total of 2,297 institutes (Annex 2). With this large number of institutes, the region accounts for more than 50 percent share of the total intake capacity in the country's engineering colleges offering degree programmes.

In terms of the number of institutions, the west figures lower than the north (290 compared to 569). However, as mentioned earlier, the higher number of institutions in the north must be seen in the backdrop of the region having not only more, but also larger states, compared to

[4] India's northern region has seven states and two Union Territories.

[5] The north-eastern region comprises the "seven-sister" states namely, Assam, Arunachal Pradesh, Meghalaya, Manipur, Mizoram, Nagaland and Tripura. Sikkim is also a part of this region.

the west. The average number of engineering colleges offering degree programmes in each state of the northern region turns out to be 64, lower than the corresponding average of 73 in the west. The north is reflected in an even weaker light in terms of the average state-wise share of institutes offering diploma programmes. In this regard, the state-wise average for the north is 46, while the west is much ahead at 73. It is also important to note the corresponding state-wise averages in terms of intake capacities. Computed across states, the institutes offering degree programmes in engineering subjects in the northern region have an average intake of 21,216 students, which is marginally less than the 21,824 in the west. However, in terms of institutes offering diploma programmes in engineering, the northern states have a much lower average intake capacity of 12,246 students compared with 21,386 students in the west.

While the eastern region of the country lags behind in the number of engineering institutions as well as intake capacities compared to the other regions of the country, the capacities of the north need to be interpreted with caution. The larger number of institutions in the region primarily reflects its larger geographical dimensions and does not indicate a developed technical education infrastructure. The west has taken greater strides in this regard, not to mention the south, which is ahead of all the other regions. The diversity of technical disciplines available in the south and west is also evident from a close look at the subject-wise dispersal of capacities across states (Annex 3). The north again is relatively weak in this regard compared to the west and south. While this is a generic observation regarding the regional aspects of India's technical training infrastructure, the skewed orientation of the system in terms of over-emphasis on engineering and related disciplines is evident for all regions (Annex 3).

A comparative analysis of the regional capacities indicates the significant 'catching up' needed on part of the north and east *vis-à-vis* the south and west. From a supply-side perspective, the north and the east are the regions that are in greater need of quality technical education service providers. However, if from the vantage point of the service provider, a choice needs to be made between the two regions, which one is more appropriate? Between the two, though both the quality and quantity of training capacities appears to be relatively more limited in the east, it may not be the right choice for the initial entry of a foreign supplier. Certain parts of the north are likely to offer greater agglomeration advantages in this respect compared to the east. The state of Haryana is a typical example. The next section of the paper analyses the specific advantages of Haryana in this regard.

Why Haryana?

Haryana enjoys several distinct advantages that make it an ideal location for the development of a training centre to be run and managed by accomplished foreign technical training providers. These advantages are discussed below.

Strategic Geographical Location

Haryana is a strategically-located state in India's northern region having borders with other major states of the region (Figure 1). It is bordered by Punjab and Himachal Pradesh in the north, Uttarakhand and Uttar Pradesh in the east and the desert state of Rajasthan in the west and south. The state surrounds the national capital of Delhi from three sides and forms the capital's northern, western and southern borders. Haryana is a landlocked hinterland state

though the river Yamuna – one of the main rivers inundating North India – which flows along the state's eastern border.

Figure 1: Map of North India

Source: Reproduced from www.mapsofindia.com

From administrative and infrastructure perspectives, Haryana's advantages stem from its being a 'gateway' state to other key states of the north as well as to those in the central and the east and from its figuring in the NCR.[6] All northern states of the country, except Jammu & Kashmir, border Haryana. An obvious implication of such a neighbourhood is Haryana's development as a social and commercial hub comprising people from all parts of the northern region. People from relatively remote states of the north such as Rajasthan and Himachal Pradesh have been converging to Haryana in search of employment opportunities arising from industrial development in the state. As a result, technical education facilities set up in Haryana are expected to have a large market in terms of potential learners from all parts of the region.

The pool of potential learners enlarges, given Haryana's prominent presence in the NCR. Conceived way back in the early 1960s, the NCR was visualised as an urban zone that will develop in a synchronised manner primarily on the basis of the growth impulses emanating from the capital city of Delhi. Among the three constituent states of the NCR – Haryana, Rajasthan and Uttar Pradesh – Haryana has the largest share of 39.6 percent in the NCR land area.[7] On the other hand, more than a third of the total land area of the state of Haryana

[6] The NCR is one of the world's largest urban agglomerations with an aggregate area of 33,578 square kilometres (or 12,965 square mile). The region comprises the national capital territory of Delhi and the urban areas on its fringes from the neighbouring states of Haryana, Uttar Pradesh and Rajasthan. See http://en.wikipedia.org/wiki/National_Capital_Region_(India) [Accessed on 19 November 2009].

[7] Haryana, Uttar Pradesh and Rajasthan account for 5,179 square miles, 4,190 square miles, and 3,023 square miles respectively out of a total NCR area of 13,065 square miles with the National Capital Territory of

belongs to the NCR. This geographical advantage has contributed significantly to the economic development of the state and is expected to continue doing so.

The urban planning and development of the NCR region continues to progress as a holistic and integrated exercise. This enables specific parts of the constituent states of NCR to benefit from the development efforts taking place in what is probably not only India's, but also one of Asia's most economically active urban agglomerations. Haryana – the largest contributor to the NCR domain in terms of land area – has been benefiting handsomely in the process. The new round of spin-off gains are already visible in the light of the massive infrastructure upgrading taking place in the NCR for meeting the requirements of the forthcoming Commonwealth Games slated to be held in Delhi in October 2010.

From the perspective of a potential technical training provider, Haryana's presence in the NCR has considerable significance. With the NCR region expected to remain a buoyant hub of economic activity, demand for a variety of technical skills is expected to sustain over the medium-term horizon. Thus, the volume of potential learners is hardly expected to diminish over time. Moreover, as the NCR's connectivity to the rest of the country improves further on account of the upcoming road networks, the region is expected to act as an even stronger 'pull' factor for labour from the other parts of north India.

Diverse Industrial Base

Haryana is a conspicuous presence on India's industrial map. It has not only developed as a strong manufacturing hub, but also emerged as a key location for value-added services such as software development, IT-enabled services and the real estate industry.

The state's industrial growth has been spurred by the development of strong automobile assembling and automotive component manufacturing industries. India's automobile industry began its journey towards modernisation in Haryana with the establishment of the production facilities of the Maruti Udyog Limited (MUL) in the city of Gurgaon in 1981.[8] The MUL currently enjoys more than 50 percent share in India's passenger car market and has its largest assembling facilities located in Gurgaon and Manesar of Haryana.[9] The other prominent automotive and component manufacturing firms in Haryana include Hero Honda, Honda Motorcycle and Scooter India, Escorts, Yamaha Motors, Sona Koyo Steering Systems, Munjal Showa and Omax Auto. Gurgaon, Manesar, Faridabad, Sohna and Dharuhera are the main centres which house the production and assembling facilities of these firms. All these centres are either part of the NCR or are located off the National Highway 8. The robust growths of these centres have been facilitated by their proximity to Delhi, as well as the advantages of being part of a well-knit highway network that is an integral component of the 'Golden Quadrilateral'.

Haryana's manufacturing base is not only confined to the automotive industry, which has incidentally prospered from the growth of a competent ancillary cluster that has come up through strong forward linkages with the assemblers. The state also has a thriving agro-

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Delhi accounting for the rest. The shares of the three states in NCR area are 39.6 percent, 32.1 percent and 23.9 percent respectively.

8 The MUL, originally a joint venture between the Government of India and Suzuki Motor Corporation of Japan, has subsequently been renamed Maruti Suzuki India Limited following Suzuki's becoming a majority partner in the company.

9 Gurgaon has three integrated plants. The Manesar plant is the latest facility launched in 2007.

processing industry with strong competence in horticulture production and dairy farming, food processing industry with leading brands such as Nestlé and Perfetti Van Melle and a textile and garment manufacturing industry with a specific thrust on exports.

Apart from manufacturing, Haryana has a rapidly growing real estate and construction industry involving both domestic and foreign developers (for example, DLF Group, Ansal Group and Emaar MGF). The state has also emerged as a key destination for the IT industry in India and currently has several leading IT and software solution providers such as the Tata Consultancy Services, Convergys India Services, IBM Daksh, Genpact, Evalueserve and Wipro Infotech. The state is poised to become a major centre for biotech research and development, and product development with the establishment of laboratories and research facilities by large enterprises such as Ranbaxy Laboratories, Eli Lilly and Proagro Seeds.

From a demand-side perspective, Haryana's diverse industrial base comprising a variety of manufacturing segments and service industries creates circumstances that are conducive for supplying a whole range of technical skills. Given the heterogeneous spread of industries and the varied nature of firms functioning in the state, the workforce is not only occupationally variegated and in persistent need for upgrading skills, but is also cosmopolitan, English-speaking and capable of adapting to advanced teaching methods and courses. There is no doubt that a supply of a variety of skills delivered through different absorption modules suiting specific requirements of industries and employees would be welcome in the state.

Complementary Educational Infrastructure

Haryana has an extensive and diverse spread of educational facilities. These include universities and engineering colleges, as well as a large number of computer education, pharmacy and undergraduate colleges offering different technical courses (Annexes 1, 2 and 3). However, quality has been a problem with technical education both in terms of course content as well as the duration of courses. These are, however, problems that are fairly widespread across India's technical education structure.

In spite of generic shortcomings, the state's existing capacities in technical education do impart it some distinct advantages from the vantage point of a foreign training provider. First, compared to other parts of the north, the larger number of education institutes in Haryana ensures that the resident population does not suffer from a lack of choices in pursuing higher or technical education. This has led to Haryana being regarded as a hub for technical training facilities in the north. Such an identity helps new training providers to publicise and establish services relatively faster than elsewhere in the region given the local clientele's greater familiarity with advanced courses and modules. Second, assuming that the foreign training provider will make the first inroads into the local market by licencing the use of its products to a local partner or through a joint venture, the presence of a large number of domestic service providers facilitates the task of identifying a collaborator.

Connectivity

Haryana has close backward and forward linkages with the northern, eastern and central regions of the country through a well-developed road network. The state has benefited from India's emphasis on building efficient highways. National Highway 8, which connects Delhi to Jaipur, the capital of the state of Rajasthan, passes through Haryana and has been one of the most efficient arteries in building the state's linkages with the rest of the country. The

state is a part of the ambitious 'Golden Quadrilateral' project in India's highway development – a project that aims to connect Delhi, Mumbai, Chennai and Kolkata by road. With the project nearing completion, Haryana's links with the rest of the country will become even stronger. Such links are expected to facilitate not only the faster movement of goods, but also a greater migration of job-seekers to Haryana.

Other than its impressive road and highway networks, Haryana's industrial prospects and outlook have greatly benefited from the proximity that it enjoys to the Indira Gandhi International Airport in New Delhi. Furthermore, train and road connections are deep and strong between Delhi and Chandigarh – a Union Territory and, at the same time, the administrative capital of Haryana. Indeed, Haryana serves as a bridge in terms of Delhi's links with the key northern states of Punjab, Rajasthan and Himachal Pradesh. In addition, Haryana's own links with Delhi are expected to grow even stronger once the metro rail transit network is completed close to the Commonwealth Games.

Migration

Industrial development across India has been distinctly uneven with some states achieving greater success in nurturing industries than others. India's 'traditional' industrial states belong to the south (Tamil Nadu and Karnataka), west (Maharashtra and Gujarat) and the east (West Bengal). The northern part of India, particularly the Hindi heartland spread on both sides of the upper and middle Gangetic plain, is known more for farming than industry. A significant part of the region, comprising Punjab, Haryana and the western part of Uttar Pradesh, are beneficiaries of India's 'Green Revolution'[10] and have come to be known as the granaries of the country.

While the north continues to remain industrially backward compared to the south and west, Haryana has emerged as an exceptionally vibrant industrial state. The state has a diverse spread of industrial activities and enterprises. Haryana's industrial progress is exceptional not only because it emanates from a region that is little known for industrial prowess, but also because it is one of India's rare hinterland states that has developed industrially. Typically, coastal states enjoy greater possibilities of flourishing industrially on account of low transport costs, a greater availability of water and deeper linkages with the rest of the world. However, Haryana has achieved industrial distinction despite being landlocked and not endowed with any of the 'coastal' advantages.

India's uneven industrial development has resulted in the migration of job-seekers from the industrially backward parts to the developed areas of the country. Haryana has been attracting a large number of migrants from other northern states such as Bihar, Rajasthan, Madhya Pradesh and Uttar Pradesh. The influx of potential job-seekers has ensured a steady supply of workers for industries located in the state. However, the migrating labourers are either equipped with inadequate technical skills or are trained in a manner that is inconsistent with modern shop-floor practices and production requirements of most industries including enterprises specialising in process outsourcings. In this respect, Haryana again provides

[10] 'Green Revolution' is a phrase commonly applied for describing successful agricultural experiments resulting in the growth of agricultural output and productivity in developing countries. In India, the experiment took place during 1967-78, involving an extensive use of genetically developed high-yielding variety seeds, multiple cropping schedules and expansion of cultivable acreage. The experiment resulted in India transforming from an import-dependent food-deficient country to a self-sufficient country of food grains. The most remarkable results were achieved in wheat output, followed by rice, millet and corn.

considerable rational for the entry of foreign technical training providers given the large size of the potential market.

Special Economic Zones

A clear indicator of Haryana's industrial and investment attractiveness is the large number of special economic zones (SEZs) that are coming up in the state. Out of the 335 SEZs notified by the Government of India until 29 April 2009, 31 zones are being set up in Haryana. Haryana is not only the leading state in India's north in terms of SEZs, but is also one of the leading states in the country to attract such zones and the only hinterland state to have a large number of upcoming SEZs.[11] Indeed, the state now has more notified zones than even the traditional developed industrial states such as Karnataka and Gujarat.

The keenness of developers to build SEZs in Haryana has much to do with the state's positive reputation of being an attractive investment destination and a good place for doing business. Haryana is one of the rare states of the country where zones with small land areas are coming up alongside those requiring large spaces. This is on account of the state attracting both big multi-product SEZs as well as smaller IT zones.[12]

The growth of SEZs in Haryana has been facilitated by an enabling land acquisition policy introduced by the state government. Unlike several other parts of India, where the procurement of land for developing SEZs has witnessed violent backlashes, Haryana has been a notable exception. Realising the importance of making vacant land available for the growth of new industries, the state government has announced a policy encouraging developers to deal directly with land owners for purchasing land.[13] At the same time, it acknowledges the facilitating role that the state needs to play in several transactions involving the acquisition of large chunks of contiguous land. In this respect, the land acquisition policy of the Haryana government stipulates clear responsibilities of the developer in terms of deciding compensation on the basis of pre-determined floor rates consistent with prevailing market rates. Interestingly, the existing policy – in cases that result in displacement due to acquisition – makes it mandatory on the part of the developer to create technical training facilities for building the capacities of displaced people to take up non-farming occupations subsequent to displacement.

From a demand-side perspective once again, the growth of SEZs in an environment that encourages the transaction of land in an orderly and market-oriented manner supported by enabling regulations implies a fillip for industrial growth and expansion of the industrial workforce. Such growth and expansion creates a concomitant demand for technical skills and vocational training. At the same time, it also increases potential investors' confidence in

[11] Out of the 335 notified SEZs, Andhra Pradesh has the largest number of zones (70), followed by Maharashtra (57), Tamil Nadu (52), Haryana (31), Karnataka (29) and Gujarat. See http://sezindia.nic.in/HTMLS/Updated_List_of324notified_SEZs.pdf [Accessed on 20 November 2009].

[12] Two of India's largest multi-product zones of more than 5,000 hectares are coming up in Haryana at Gurgaon and Palwal respectively. At the same time, the state is also rearing several IT zones that have land areas of less than 99 hectares. See Palit and Bhattacharjee (2008), *Special Economic Zones in India: Myths and Realities*, Anthem Press, London, New York and Delhi.

[13] See 'Policy regarding acquisition of land for private development and in public-private-partnership for setting up of Special Economic Zones, Technology Cities, Industrial Parks and Industrial Model Townships' announced by the Department of Industries and Commerce, Government of Haryana on 4 May 2006; http://sezindia.nic.in/HTMLS/Haryanapolicy.pdf [Accessed on 20 November 2009].

Haryana as an investment location since land acquisition has been a ticklish issue denting investment prospects in several parts of India.

High Per Capita Income

Haryana is one of the richest states in India in terms of per capita income. India's per capita income – as measured by the per capita net national product at current prices – was Rs 33,283 in the year 2007-08. Three states in India's north had per capita incomes higher than the national level – Haryana (Rs 58,531), Himachal Pradesh (Rs 40,134) and Punjab (Rs 44,411) – during the year 2007-08.[14]

There are significant implications of Haryana's high per capita income from the point of view of a technical training service provider. High incomes assure the service provider about the charges that can be levied on different services; the low-paying capacities of students in many parts of India have indeed constrained private institutes from charging higher fees, which in turn have had adverse consequences for the upgrading of training capacities.[15] The problem is likely to be much less in Haryana because of the higher income levels. At the same time, the large presence of multinationals and established domestic firms in the state indicate that greater corporate sponsorship of employees planning to upgrade their skills is not only a distinct possibility compared to other northern states, but also that such sponsorship is unlikely to get affected by a lack of funds.

Stable Political Climate

Haryana's industrial progress, *inter alia*, has been facilitated by the relatively stable political climate that the state has enjoyed over the years. Unlike its close neighbour Uttar Pradesh, which has been a hotbed of political turbulence arising from ethnic and religious tensions, Haryana has enjoyed nearly uninterrupted political stability. Despite coalition governments at the helm of affairs, political friction has hardly affected industrial progress with the result that the state has kept on attracting blue-chip investments on a regular basis. The state's record in terms of law and order and administrative maintenance has also been impressive.

Concluding Thoughts

India's demographic dividend is likely to degenerate into a demographic deficit unless it is able to beef up its technical training capacities at the earliest. This capacity enhancement entails a major contribution from foreign training providers. Domestic service providers are unlikely to be able to supply the enhanced training needs in the medium-term. For a foreign technical service provider, however, the decision on whether to enter the Indian market hinges critically upon the location it selects for disbursing its services.

While different service providers are likely to have different reasons for choosing specific locations, from a generic macroeconomic perspective the northern and eastern regions of the country appear to be the most appropriate choices given their serious paucities of technical training capacities. For reasons described earlier in the paper, we have zeroed in on the north as a more preferred location and within the region we have identified the state of Haryana as a prospective location for the establishment of new facilities by a foreign technical training

[14] *Economic Survey* 2007-08; Ministry of Finance, Government of India; Appendix Table 1.8, p. A13.
[15] As in (i) earlier.

provider. This is, of course, not to dismiss the possibility of such facilities coming up in other states of the region such as in Himachal Pradesh or Punjab, or even in the national capital of Delhi. However, our analysis of Haryana's advantages – primarily in terms of its strategic geographic location, strong industrial base, good physical infrastructure, enabling policies and stable political climate – make it a distinctly attractive location in terms of a variety of yardsticks.

Indeed, Haryana's industrial base comprising automobile, food processing, bio-technology and construction industries generate the demand for a diverse variety of skills including biotechnology, automotive technology, electrical engineering, mechanical engineering, food science, building drafting, space design and precision engineering. An advanced skills-based economy such as Singapore has developed strong competencies in providing these skills. Technical training providers from Singapore can consider Haryana as a key market in India. The presence of a large number of private domestic technical education service providers in the state should also facilitate the foreign entrepreneurs' search for capable local partners and contribute to the growth of meaningful collaborations.

Annex 1

Region/State-wise Number of Government/Private Professional Educational Institutions (Degree and Diploma Courses) in India (As on 03.12.2007)

Region	States/UTs	*Degree		Diploma		*Degree		Diploma	
		No. of Govt./Govt. Aided Inst.	No. of Pvt. Inst.	No. of Govt./Govt. Aided Inst.	No. of Pvt. Inst.	Region's Share in India's No. of Govt/Aided Inst.	Region's Share in India's No. of Pvt. Inst.	Region's Share in India's No. of Govt/Aided Inst.	Region's Share in India's No. of Pvt. Inst.
Central	Madhya Pradesh	36	280	59	39	**7**	**7**	**8**	**4**
	Chhattisgarh	13	31	16	10				
	Region Total	49	311	75	49				
East	Mizoram	1	0	4	0	**13**	**5**	**15**	**6**
	Sikkim	0	3	3	1				
	Orissa	23	121	21	38				
	West Bengal	41	86	54	17				
	Tripura	6	0	4	0				
	Meghalaya	0	2	3	0				
	Arunachal Pradesh	1	0	3	1				
	Andaman & Nicobar	0	0	3	0				
	Assam	13	4	15	0				
	Manipur	2	0	4	0				
	Nagaland	2	1	4	0				
	Jharkhand	11	12	15	8				
	Region Total	100	229	133	65				
North	Bihar	18	14	14	8	**28**	**23**	**29**	**19**
	Uttar Pradesh	64	436	96	17				
	Uttaranchal	18	45	42	9				

	Chandigarh	9	0	3	1				
	Haryana	20	130	26	52				
	Jammu & Kashmir	13	6	8	7				
	New Delhi	19	58	12	8				
	Punjab	23	134	22	68				
	Rajasthan	20	166	28	40				
	Himachal Pradesh	6	15	7	4				
	Region Total	210	1004	258	214				
South	Andhra Pradesh	53	1021	91	83	**27**	**50**	**32**	**38**
	Pondicherry	6	10	7	0				
	Tamil Nadu	46	669	62	239				
	Karnataka	41	381	70	108				
	Kerala	61	133	55	4				
	Region Total	207	2214	285	434				
West	Maharashtra	147	522	91	319	**25**	**15**	**16**	**33**
	Goa	6	4	10	2				
	Gujarat	36	153	42	49				
	Daman & Diu Dadar Nagar Haveli	0	0	0	2				
	Region Total	189	679	143	372				
India	**Total**	**755**	**4437**	**894**	**1134**				

* Includes Undergraduate and Post Graduate degree Level Institutions in Engineering and Technology, Pharmacy, HMCT, Architecture and Post Graduate degree Institutions in Management and Computer.

Compiled from the statistics released by Rajya Sabha Unstarred Question No. 1352 dated on 03.12.2007.

Source: India Stat, available at www.indiastat.com.

Annex 2

Region/State-wise Number of AICTE Approved Engineering (Degree and Diploma) Institutions and Its Intake Capacity in India (As on 30.06.2008)

Region	States/UTs	Degree		Diploma		Region's Share in India's NOI	Region's Share in India's Intake	Region's Share in India's NOI	Region's Share in India's Intake
		NOI	Intake	NOI	Intake				
Central	Madhya Pradesh	146	53267	55	17601	**8**	**8**	**4**	**5**
	Chhattisgarh	33	10624	16	3355				
	Region Total	179	63891	71	20956				
East	Mizoram	1	120	4	369	**7**	**6**	**8**	**7**
	Sikkim	1	498	0	0				
	Orissa	67	21895	44	12380				
	West Bengal	70	19493	51	11285				
	Tripura	3	36	1	100				
	Meghalaya	1	240	3	380				
	Arunachal Pradesh	1	264	2	370				
	Andaman & Nicobar Islands	0	0	2	334				
	Assam	7	1496	13	2173				
	Manipur	1	115	1	170				
	Nagaland	1	240	0	0				
	Jharkhand	11	3710	18	3490				
	Region Total	164	48107	139	31051				
North	Bihar	14	3060	13	3585	**25**	**24**	**25**	**24**
	Uttar Pradesh	239	78134	93	16083				
	Uttarakhand	18	6237	30	4019				
	Chandigarh	5	788	3	615				

	Haryana	112	36853	102	36980				
	Jammu & Kashmir	7	2181	14	3420				
	Delhi	19	7283	17	5080				
	Punjab	69	26263	68	25970				
	Rajasthan	77	27853	67	12811				
	Himachal Pradesh	9	2292	9	1650				
	Region Total	569	190944	416	110213				
South	Andhra Pradesh	494	183223	126	29765	**48**	**52**	**45**	**46**
	Puducherry	9	3624	5	1200				
	Tamil Nadu	344	145268	324	114109				
	Karnataka	154	66603	240	61077				
	Kerala	94	29355	60	11855				
	Region Total	1095	428073	755	218006				
West	Maharashtra	233	67067	216	63155	**12**	**10**	**18**	**18**
	Goa	3	629	8	1860				
	Gujarat	54	19598	68	20270				
	Daman & Diu, Dadra & Nagar Haveli	0	0	2	270				
	Region Total	290	87294	294	85555				
	India	**2297**	**818309**	**1675**	**465781**				

Source: India Stat, available at www.indiastat.com.

Annex 3

Region/State-wise Number of Technical Education Institutions (Govt./Private) Approved by All India Council for Technical Education (AICTE) in India (Academic Year, 2007-2008)																					
		B-HMCT		Architecture		D-Pharmacy		D-Architecture		D-HMCT		BFA /MFA		MBA/PGDM		MCA		B-Pharmacy		Engineering	
Region	States/UTs	Govt	Pvt	Govt	Pvt	Govt	Pvt	Govt	Pvt	Govt	Pvt	Govt	Pvt	Govt	Pvt	Govt	Pvt	Govt	Pvt	Govt	Pvt
	MP	0	4	3	1	4	38	0	0	0	1	0	0	1	54	9	38	3	63	13	115
	Chhattisgarh	0	0	1	0	2	10	1	0	0	0	0	0	3	3	1	5	2	6	5	15
Central	**Region Total**	0	4	4	1	6	48	1	0	0	1	0	0	4	57	10	43	5	69	18	130
	Mizoram	0	0	0	0			0	0			0	0	0	0	0	1	1	0	0	0
	Sikkim	0	0	0	0			0	0			0	0	1	34	0	27	0	1	0	1
	Orissa	0	2	1	1			0	0			0	0	7	16	8	13	1	16	5	43
	WB	0	4	2	1			0	0			0	0	7	0	9	0	1	9	18	43
	Tripura	0	0	0	0			0	0			0	0	1	0	1	1	1	0	3	0
	Meghalaya	0	0	0	0			0	0			0	0	0	0	0	0	0	0	0	1
	AP	0	0	0	0			0	0			0	0	0	0	0	0	0	0	1	0
	Andaman & Nicobar Island	0	0	0	0			0	0			0	0	0	0	0	0	0	0	0	0
	Assam	0	0	0	0			0	0			0	0	5	0	3	0	1	1	3	2
	Manipur	0	0	0	0			0	0			0	0	1	0	0	0	0	0	1	0
	Nagaland	0	0	0	0			0	0			0	0	0	1	0	0	0	0	1	0
	Jharkhand	0	0	1	0			0	0			0	0	1	5	2	0	1	0	2	7
East	**Region Total**	0	6	4	2	0	0	0	0	0	0	0	0	23	56	23	42	6	27	34	97
	Bihar	0	0	0	1			0	0			0	0	7	4	5	1	2	0	6	4
	UP	1	9	3	3			0	0			0	1	22	130	10	76	2	90	26	116
	Uttarakhand	3	4	0	1			0	0			0	0	5	13	1	12	2	9	5	9
	Chandigarh	0	0	1	0							1	0	0	0	1	0	1	0	5	0
	Haryana	0	3	2	0							0	0	5	31	2	24	6	23	7	55
	JK	0	0	0	0							0	0	6	3	3	0	1	0	3	3

	New Delhi	0	1	2	2							1	0	6	29	1	17	2	4	8	10
	Punjab	0	7	2	5							0	0	2	36	2	22	5	27	12	35
	Rajasthan	0	5	2	1							0	0	3	49	2	16	1	49	12	52
North	HP	0	0	1	0							0	0	1	4	0	1	1	6	3	5
	Region Total	4	29	13	13	0	0	0	0	0	0	2	1	57	299	27	169	23	208	87	289
	Andhra	0	1	2	5	14	49	0	0	5	1	0	0	5	209	2	296	3	219	6	322
	Pondicherry	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	5	0	1	2	5
	TN	0	2	2	7	1	14	0	0	1	17	0	1	11	136	12	198	4	39	9	264
	K'taka	0	20	5	9			5	6			0	0	11	98	8	64	1	78	18	126
	Kerala	0	2	4	1			2	1			0	0	6	31	12	25	4	28	35	57
South	**Region Total**	0	25	13	22	16	63	7	7	7	18	0	1	33	474	34	588	12	365	70	774
	Maharashtra	1	9	3	29	25	181	1	0	2	21	2	4	9	150	4	51	6	118	15	169
	Goa	0	0	1	0	0	0	0	0	0	0	1	0	2	0	1	0	1	1	1	2
	Daman & Diu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dadra & Nagar Haveli	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Gujarat	0	1	3	3	10	16	0	0	0	2	0	0	5	41	5	19	4	62	18	28
West	**Region Total**	1	10	7	32	35	197	1	0	2	23	3	4	16	191	10	70	11	181	34	199
India		**5**	**74**	**41**	**70**	**57**	**308**	**9**	**7**	**9**	**42**	**5**	**6**	**133**	**1007**	**104**	**912**	**57**	**850**	**243**	**1489**

Source: India Stat, available at www.indiastat.com.