

Vocational Education: A Roadmap to National Development

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Abstract: Education is a basic human right and considered by many as a key tool for national development. However, this tenet has been challenged by several economists, especially Pritchett (1996). His empirical analysis suggests that many countries, whilst having a large educated population, remain unable to make significant progress. It is also claimed that third world development is sluggish. These findings generate the question: while education increases globally, what exactly is it that hinders a country's progression? There are no short answers, but a major area of concern is the type and quality of education available. Scholars argue that countries need a well-diversified education system in order to gain sustainable development through education. This paper explores the situation for Punjab for its development by providing technical and vocational education

Keywords: Education, Technical Education, Vocational Education, National Development

1. Introduction

According to Alam (2007), human capital theory has powerful influence on the analysis of labor market. Alam notes that investment in education and training produces benefit both to the individual and to society as a whole. The return on investment for society will be a skilled workforce that will enable global competitiveness and economic growth, while the return of the individual will be a better career path, increased earning and a better quality of life.

According to Fagerlind and Shah (1989) the concept of 'human capital' suggests that education and training raises the productivity of workers, and increases their lifetime earning capacity. According to Alam (2007), governments perceive increased demands for skills when the labor supply shows rapid growth, when employment grows quickly, or when employment increases significantly. They argue that governments have called upon vocational education and training (VET) systems to help unemployed young people and older workers get jobs, reduce the burden on higher education, attract foreign investment ensure rapid growth of earnings and employment, and reduce the inequality of earnings between the rich and the poor. But Zymelman (1976) Paschoropoulos (1987) and Tilak (1998) argue that TVE provides a lower rate of return (ROR) than general education. However, Bennell (1996) rebuts this, arguing that even if TVE students are less 'academically brilliant', the ROR for TVE is still high. Colin (1999) suggests that TVE not only prepares skilled labor but also provides general education to the students. Foster also (1965) aggressively criticizes that vocational school is a fallacy in development planning, and points out that vocational education can be effective if the acquired skills are utilized properly. Colin (1999) likewise says that TVE can play vital role for development planning, but he warns that if the policy makers do not make it up-to-date, and TVE schools do not have enough qualified teaching faculty and sufficient facilities to offer quality TVE, it will not be useful. He also claims that these are not limitations of TVE per se, but limitations of the educational policy of the country. Bennell (1996) says that though TVE has been a powerful influence

in development planning; indiscriminately offering TVE may have negative impact on development. Arriagada and Ziderman (1992) criticize TVE, saying does not pay an appropriate role in development and claim that the higher investment needed for TVE does not seems to be compensated for by high return. However his definition of TVE can explain a good significant role of TVE in development: "Vocationalization refers to effort by school to include in their curriculum those practical subjects which are likely to generate among the students some basic knowledge, skills and dispositions that might prepare them to think becoming skilled worker or to enter other manual occupations". The World Bank Policy Paper on TVE (1991), says that to get the maximum benefit to national development from TVE certain factors must be considered:

- Well-timed modern courses linked of local and global demand;
- relevant and up-to-date TVE courses need to be developed;
- proper justification in respect of individual country that at which level of schooling is best in offering TVE courses; and
- wider range of TVE courses need to be developed in terms of demand and cost effectiveness (not only for offering various courses but also for duration of the courses, for student classification in terms of their merit, ages, job market, etc.).

The National Council for Vocational Training (NCVT) advises the government on issues related to various vocational training schemes; similarly the State Council for Vocational Training (SCVT) carries out the same functions at the state level.

2. The National Skills Development Corporation (NSDC)

The National Skill Development Coordination Board has been set up under chairmanship of the Deputy Chairman of The Planning Commission in the Public Private Partnership mode (PPP). It formulates strategies to implement the

decisions of the Prime Minister's Council on National Skill Development and also monitors and evaluates the outcomes of the various other schemes and programs for the council. It also develops appropriate and practical solutions and strategies to address regional and Social Imbalances, ensures quality control in Vocational Training and Education, monitors private participation strategies and helps put in place sectoral action plans. It has planned to set up 1500 new ITIs and 5000 skill development centres, across the country as well as a National Vocational Education Qualifications Framework (NVQF) for affiliations and accreditation in the vocational, educational and training systems.

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The Ministry of Labour and Employment, Ministry of Human Resource Development (MHRD), Ministry of Rural Development and Ministry of Urban Development & Poverty Alleviation, along with 14 other ministries, have come up with various schemes on skill development.

The Modular Employable Skills (MES) and Skills Development Initiative Scheme (SDIS) adopted by the Directorate General of Employment and Training (DGET), Ministry of Labour and Employment, Government of India, provides a new strategic framework for skill development for early school leavers and existing workers, especially in the un-organised sectors, in close consultation with industry,

micro enterprises in the un-organised sector, State Governments, experts and academia. The main objective here is to provide employable skills to school leavers, existing workers, ITI graduates and similar others. Existing skills of the persons can also be tested and certified under this scheme. Priority is given to those above 14 years of age, who have or been withdrawn as child labourers. This will enable them to pick up employable skills in order to be gainfully employed. The Directorate General of Employment & Training (DGE&T) had the initiated Craftsman Training Scheme in 1950 by establishing 50 Industrial Training Institutes (ITIs) for imparting skills in various vocational trades to meet the manpower requirements for technology and industrial growth of the country. Since then the demand for skilled manpower has increased substantially due to rapid economic growth, changes in technology and work process, and globalization of economy. As on 01-01-2007 there were 1896 Government ITIs in the country. Out of which 500 ITIs are being upgraded into Centres of Excellence under a Scheme launched in 2005-06. The Up gradation of the remaining 1396 Government ITIs has been done through Public Private Partnership since 2007-2008. This scheme was initiated with an objective of improving the quality of vocational training in the country to make it demand driven so as to ensure better employability of the graduates.

3. Schemes of the Ministry of Human Resource Department

Schemes/Programs	Duration	Target group	Details
Vocationalisation of Secondary Education (6800 schools covered)	2 years	Students who have passed 10th class	<ul style="list-style-type: none"> Vocational education is provided in 9,619 schools with 21,000 sections covering around 1 million students. The scheme proposes to expand vocational education to 20,000 schools and the intake capacity to 2.5 million by 2011-12.
Polytechnics (1244) + Institutions for diploma in pharmacy (415), hotel management (63), architecture (25)	3 year- diploma	Students who have passed 10th class	<ul style="list-style-type: none"> These offer diploma courses in civil, electrical, mechanical engineering, electronics, computer science, medical lab technology, hospital engineering, architectural assistantship, etc.
Community Polytechnic Scheme (675 CPS)	3 to 6 months	Poor sections of society in rural and urban areas	<ul style="list-style-type: none"> CPS acts as a focal point to promote transfer of science and technology to the rural sector.
Jan Shikshan Sansthan (JSS) (157 Vocational Training Centers run by NGOs offering more than 250 courses)	Need based (1- 4 weeks)	Disadvantaged groups of adults – priority being given to adult neo-literates/ semi literates, SC and ST, women/girls, oppressed people, migrants, slum/ pavement dwellers and working children	<ul style="list-style-type: none"> These act as district level resources to organize vocational training and skill development programs.
National Program on Technology Enhanced Learning (NPTEL) – Support for Distance Education & Web-based Learning	Designing course material – time-bound project	Engineering and physical science under-graduate/ post-graduate and all teachers/ faculty members in science and engineering fields	<ul style="list-style-type: none"> Launched in 2003, it is meant to enhance the quality engineering education in the country by developing curriculum-based video courses (at least 100) and web-based e-courses (at least 115) that will be prepared at the seven IITs (Delhi, Bombay, Madras, Kanpur, Kharagpur, Guwahati, Roorkee and IISc).
National Institute of Open Schooling (NIOS) – Distance Vocational Education Programmes	6 months to 2 years	5th, 7th and 8th and 10th pass	<ul style="list-style-type: none"> These constitute a network of 11 regional centers and around 2,067 study centers. There are around 1,063 accredited vocational institutes in the the country. The cumulative enrolment in VET during the last five years is 93,000.

Source: FICCI-Ernst & Young: Knowledge Paper on 'Strategic and Implementation Framework for Skill Development in India. September 2011

4. Other Ministry Initiatives

Ministry/Department	Vocational education and training programs
Agriculture	<ul style="list-style-type: none"> Training in agricultural extension (21 training centres) Training in use of agricultural implements and machinery Soil conservation training center Cooperative education and training Educational institutions: <ul style="list-style-type: none"> One central agricultural university 31 state agricultural universities (SAUs) 4 National Institutes of Indian Council of Agricultural Research
Food processing	<ul style="list-style-type: none"> Established of more than 300 food processing and training centers Training institutions: <ul style="list-style-type: none"> Central Food Technology Research Institute Paddy Processing Research Centre (PHTC) Council of Entrepreneurial Development Programme Entrepreneurship Development Programme for development of human resources
Health and family welfare	<ul style="list-style-type: none"> Promotional training of female health assistants in 42 training centers Basic training to health workers through: <ul style="list-style-type: none"> 478 Multipurpose Health Worker Training Schools (MPW) for women 28 Health and Family Welfare Training Centers (HFWTC) and 30 MPW for men
Heavy industries and public enterprises	<ul style="list-style-type: none"> Counseling, retraining and redeployment of workers of Central Public Sector Enterprises (CPSEs)
Information Technology	<ul style="list-style-type: none"> DOEACC - O level CEDTI: conducts courses in the field of electronics, telecommunications, IT, process control and instrumentation
MSME (Small Industries Development Organization (SIDO))	<ul style="list-style-type: none"> Entrepreneurship Development Programme Skill Development Programme (SDP) Management Development Programme
Khadi & Village Industries Commission under Ministry of MSME	<ul style="list-style-type: none"> 51 training centers run 35 types of programs

Source: FICCI-Ernst & Young: Knowledge Paper on 'Strategic and Implementation Framework for Skill Development in India. September 2011

5. Industry Initiatives

The private sector has been taking various initiatives on its own and in collaboration with the government and international entities, to upgrade in-house training facilities and also to provide training to potential employees to make them job ready.

Many large corporations like Larsen & Toubro, Bharti Group, Hero Group, Maruti, ITC, Infrastructure Leasing & Finance Services Ltd. Etc., have established training facilities that offer world class training programs that create an environment of e-learning and innovation.

6. Private Sector Initiatives

Manufacturing sector ¹³		
Sector	Company name	Training initiative
Construction	Larsen & Toubro	<ul style="list-style-type: none"> L&T has established Construction Skills Training Institutes (CSTIs) in Chennai, Panvel, Ahmadabad, Bengaluru, Hyderabad, Delhi and Kolkata to impart construction vocational training.
Textile	Vardhman Group	<ul style="list-style-type: none"> The group has established the Vardhman Training and Development Centre (VTDC) at Ludhiana to enhance employee skills across all functions.
Electronic goods	Godrej Industries	<ul style="list-style-type: none"> Godrej has recently tied up with The George Telegraph Training Institute (the pioneer in vocational training in eastern India) to launch specialized courses in refrigeration, air-conditioning and washing machine technology. On completing the course, deserving students will be offered employment with Godrej.
Automotive	Maruti Suzuki India Ltd. (MSIL)	<ul style="list-style-type: none"> MSIL has tied up with 17 ITIs (in November 2010) and has placed nearly 400 students in its service network. It plans to ramp up its network to 53 ITIs and absorb 500-600 more ITI students in coming months. The company has also tied up with other institutes such as the BGS Institute of Science & Management and the ABT Technical Institute to conduct Maruti-certified courses. MSIL has also set up a Technical Training Centre (TTC) to cater to the training needs of employees working in the manufacturing domain and train them on the latest technologies.

Services sector ¹⁴		
Sector	Company name	Training initiative
Retail	ITC	▶ ITC Wills Lifestyle has tied up with professional courses provider NIS Sparta, which is a part of the Reliance ADA Group, to provide training in retail management.
Hospitality	Grand Hyatt	▶ Hyatt Hotels Corporation has its in-house training initiative, School of Hospitality at Grand Hyatt Mumbai. ▶ It also has three more schools of learning – the School of Leadership, the School of Management Studies and the School of General Studies.
Information technology	Infosys	▶ Infosys' global training center in Mysore is one of the largest corporate training establishments in the world and can accommodate 15,000 people.
Financial services	ICICI Bank	▶ ICICI has established ICICI Manipal Academy (IMA), in association with Manipal Education, to train newly recruited junior managers of the bank in banking and finance. The institute has an intake of 550-600 students every three months.
Aviation	Pawan Hans Helicopters Limited (PHHL)	▶ PHHL's training institute provides Aircraft Maintenance Engineering (AME) courses and imparts knowledge on helicopters and their systems to students.

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The Sector Skills Council (SSC) model, which is a National Partnership Organization that brings together academia, industry, labour and the government, has been adopted from the UK, has proved useful in addressing human resource gaps in the country.

7. Conclusion

Vocational Education and Training (VET) is an important element of the nation's education initiative. In order for Vocational Education to play its part effectively in the changing national context and for India to enjoy the fruits of the demographic dividend, there is an urgent need to redefine the critical elements of imparting vocational education and training to make them flexible, contemporary, relevant, inclusive and creative. The Government is well aware of the important role of Vocational education and has already taken a number of important initiatives in this area. School-based vocational education in India is currently covered by a centrally sponsored scheme which was mooted in 1988 and was aimed at providing an alternative to the pursuit of higher academic education. One of the objectives of the Vocational Education Programme of NIOS is to meet the need for skilled and middle-level manpower for the growing sectors of economy, both organized and unorganized. The range of Vocational Education courses has been expanding over the years depending upon needs of learners. These new avenues of income generation, provided through vocational education, help in skills development of an individual as well as aids in uplifting the living standard of the entire family. Thus, making its contribution in the development of a literate and Self-sufficient Society and market demands. The present Vocational Education courses of NIOS are meant for both urban and rural sectors.