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Review of TVET System and Skill Development System: an analysis of institutional matters in India

Abstract

Technical Vocational Education and Training play a significant role in equipping learners with relevant skill sets for specific trades, crafts and careers. The vocational education and training of youth is a challenge in terms of employability and skills acquisition of learners at all levels. With the emerging trends in the employment sector the skill requirements have varied with geographic location, type of industrial development, economic growth and training facilities available in the region. The present study attempts to review the policy issues, best practice models for an enabling system of synchronising a systemic approach for skills training and vocational and technical education relevant for a nation like India. The research attempts to examine the key intervention characteristics to explain in the present trend of skill development the variability in the intervention strategies.

The present study will identify the institutional structure in the context of the technical vocational education and skills training systems in India. The review enumerates the best practices adopted with relevant cases for expansion, to make the vocational training accessible and such efforts taken in the direction. The policy relevant to technical education, skills training and the apprenticeship training have varied with time, scope and demand of the sector. The challenge remains how systems have to respond to meet the overall demands by taking into account the local demands and regional requirements in a global context.

Keywords: *Technical Vocational Education Training; Skills Development Systems; Institutional Structure; TVET Policy, ITI (Industrial Training Institutes)*

1 Brief of development of TVET system in India

The Technical Vocational Education and Training has remained the backbone to skilling human resources for manufacturing and services sector. The technical vocational education is the combination of education and training depending on the occupation and employment sector. The training in vocational and specific trades involves an engagement with industries and service provider to gain in-depth understanding of the works in the relevant sector. This is also termed as Apprenticeship Scheme (MSDE 2008).

1.1 History of Vocational Education in India

The vocational education in India can be traced back to the British Rule, the pre-independence and post-independence (before and after 1947 respectively). The vocational

education received little significance before 1947, however the need was felt across the sectors. There were several committees and policy initiatives during pre-independence to strengthen the policy of the government, key policy emerged from the Education Committees, Reports and independent commissions constituted by the then Governments, which included: (a) Wood Despatch (1854), (b) Indian Education Commission (1882), (c) Rise of National Education Movement (1905-1921), (d) the Hartog Committee (1929), (e) The Sapru Committee (1934), (f) the Zakir Hussain Committee (1937), (g) Abbot Wood Report (1937), (h) Sargent Report and Central Advisory Board on Education (1944), Shivaji Bapu Patil (2003). It may be seen from the above, these initiatives formed the foundation for the evolution of designing the relevant education and training systems for India. It may also be noted that even the institutions that came into existence in the pre-independence time still remain the epitome of the education system. This can be seen predominantly in the higher education sector and very less in the technical vocational education. Key highlights of the recommendations of the Committee are discussed.

The Sapru Committee (1934) recommended, formal education system with fixed number of years for education at the schooling i.e., 5 years for primary, 3 for secondary with vocational studies commencing after 11 years of school education. While, Zakir Hussain Committee recommended the pedagogical aspects, assessment and evaluation, student retention in the classroom for instructional learning, the aspects of free compulsory education was stressed during this phase. While pedagogy was dealt in details, the committee recommended the classroom teaching using the regional languages (mother tongue). This committee also stressed on the learning resources such as availability of textbooks, laboratory/ workshop resources received greater attention with vocational education at the secondary level itself.

The Abbot-Wood Report (1937) highlighted the vocationalization of secondary education, where-in pre-final and final year of school students specialize in the required fields of training. Some of the key issued identified during this stage included lack of funds, lack of trained teachers and the type of teachers available for various disciplines of study, which varied with scope and potential.

Post the independence much development was seen. In general the education sector were given the priority, while vocational education received its due advantage realizing the significance of labour market demand. Several committees, commissions laid emphasis on vocational education, the significant included (a) University Education Commission (1948-49), (b) Secondary Education Commission (1952-53), (c) Kothari Commission (1964-65), (d) Central Advisory Board of Education (1967), (e) National Policy on Education (1968), (f) Report of the Working Group on vocationalization (Subanayagam Report, (1978), (g) Adiseshiah Report – Vocationalization of Higher Secondary Education & 10+2 Committee (1977), (h) Working Group on Vocationalization of Education (Kulandiswamy Report) (1985), (i) National Policy on Education and the Action Programme on Vocational Education (1986), and (j) National Policy on Education 1986, Revised Policy (1992).

The significant change occurred during the period of Kothari Commission, wherein key initiatives to strengthen TVET system viz., manpower assessment were made, basis the vocationalization at higher secondary stage for variety of areas (included trades in agriculture, engineering and non-engineering), inclusiveness for rural boys to pursue such vocational courses, most important, grants were earmarked for promotion and development at all levels. Vocational courses after 10 years schooling was emphasised for rapid expansion. Courses in health sector, administration, commerce, small scale industries were introduced. The certification level were also clearly demarcated Certificate courses, Diploma, Post-diploma were offered basis the recommendations of this Committee.

The Subanayagam Report (1978) basis the detailed vocational surveys, recommended series of strategies for expansion of ITI in the rural areas (ITIs are the units of training service providers established by the govt. either state or central which follow the prescribed national curriculum, syllabus and certification), providing training to teachers for imparting vocational training, availability of teaching and learning resources, linking vocational training to main education programme and apprenticeship facilities. It is at this stage that the National Council for Vocational Education was set up along with the state councils in the states to undertake implementation activities. Furthermore, the government solicited support of private sector for technical and vocational training and education.

Kulandaiswamy Report (1985) recommended significant change in restructuring the TVET system. The report had presented a new concept of Technical and Vocational Education and Training and recommended courses relevant to various employment sectors according to needs of industry stakeholders. It was at this stage that various institutions at national, regional and state level were established such as the All India Board of Vocational Education, Bureau of Vocational Education, State Council for Vocational Education, district level committees etc. The National Council for Education Research and Training, an autonomous institute of Ministry of Human Resource Development (MHRD) was given the full responsibility of preparing curriculum for vocational education in schools including the textbooks.

Thus, it is seen that the vocational education and training remain the core instrument for skilling the learners and aspirants relevant to the job market. The government at the national level emphasized TVET at all levels (from general education to higher education level) and the focus varied with time and demand. The government has accorded priority to skill development as the Central Sector Scheme to promote TVET in partnership with industry stakeholders (MSDE 2008).

1.2 Recent Development in Technical Vocational Education & Training system

The sequential changes to the TVET system enhanced the requirement for change in the organizational structure to address the core aspects of vocationalization at all levels. In spite of several efforts, the vocational education in schools achieved results to an extent. The Government at national level have taken series of efforts on its own and with the support of

externally aided institutions such as GIZ India, The World Bank and few private sector partners including NGOs to conduct a review of the TVET system. (The World Bank 2007).

Some of the key issues identified during the period (2003 to 2014) and action taken by the Government of India in brief included:

- Designing TVET training system that is responsive to the needs of the labour market
- Improving the management of TVET at all levels, which meant defining the roles, functions and intended objectives at the national level, regional level, and state levels and other key stakeholders directly responsible for the core functions
- Implementation of strategies for improving the effectiveness of public vocational training institutions. The main focus was laid on industry engagement through representation of industry stakeholders with identified ITI/ vocational training providers and strengthening the apprenticeship training
- For giving more autonomy to the TVET providers, each of the ITI had localized management committee to manage the affairs with the key objective industries come closed to these institution and nurture skill development. The Institute Management Committee essentially comprised of majority of them represented by the industries having interest in developing and contributing to development of the institute. There are examples, where in Industries have taken up these ITI in supporting their overall growth and development by contributing workshops, equipment, machinery, employing the trained students and reaching to the community. However, these examples are selective to few identified sectors viz., automobiles, moulding and fabrications.
- Increased financing of the TVET system and support the training in the non-formal sector through mechanism of training of trainers, recognizing the curriculum, a common examination system, such other framework for training, assessment and linkages.

Basis the assessment by national and international institutions such as the World Bank Study, GIZ study, UNESCO-ILO, the Central Advisory Board on Education (2008) recommended large scale vocationalization of education and engage with private sector participation in a manner that may be relevant to meet the skill needs in terms of quality, quantity, access and relevance. These were enabled by ensuring private sector participation in the management of TVET institutions and curriculum design (aimed to connect with relevant curriculum & skills as per market needs), strengthen the education component with basics of sciences, soft skills to mould learners to the job market. The committee also recommended allowing greater cost sharing i.e. moving from a system which is increasingly financed by the private sector and by student fees and ensuring that vocational technical education has vertical mobility to higher education for the prospective students.

2 The present Institutional Structure for TVET and Skills Development System

The first National Policy on Skill Development 2009 was formulated by the national government taking into account the several features discussed above. During this phase, the public private partnership (PPP) model for skills training development with funding support for large scale dissemination of vocational and skill training was established. An organized design and development of framework for public sector training in ITI and private sector training was formulated i.e., the National Skills Qualification Framework, which has converged from the education component and technical training.

With the aim to support vocationalization at schools, ITI levels and higher education level, the National Skill Development Fund was set up in 2009, which is an important component for large scale deployment of skill training in the country. To coordinate and manage the affairs in a more structured framework, an exclusive Ministry of Skills Development and Entrepreneurship (formerly the Department of Skills Development and Entrepreneurship) was carved and created in July 2014. The ministry was established with the aim to take active participation to drive the 'Skill India' agenda on a mission mode. The ministry is also responsible for overall coordination of all the skill development efforts across the other Ministries, geographies, removal of disconnect between demand and supply of manpower, design and development of training framework and building of new skills. (MSDE 2018)

The National Institute for Transforming India Mission (NITI Ayog) is the apex body of the Government of India vested with the responsibility for planning and allocation of overall funding made by the respective ministries and departments for the mission mode projects. With the aim to manage the largescale deployment of skill initiatives at all levels and the funding, a National Skill Development Corporation (NSDC) was set up in public private partnership mode. Further to manage the affairs of curriculum norms, assessment framework, learning content, there were independent Sector Skill Councils, which were autonomous & statutory nature. The Directorate of Training within the MSDE implements the skill initiatives in the ITI through the central sector scheme, Skill Development Initiative Scheme (SDIS), Craftsmen Training Scheme (CTS) and Craftsmen Instructor Training Scheme (CTIS).

The Figure 1 illustrates the present organizational structure of the National Skills Development Mission, which remains the apex body for all policy directions and enablers for skill initiatives and the national programme for large scale deployment. (MSDE, 2018)

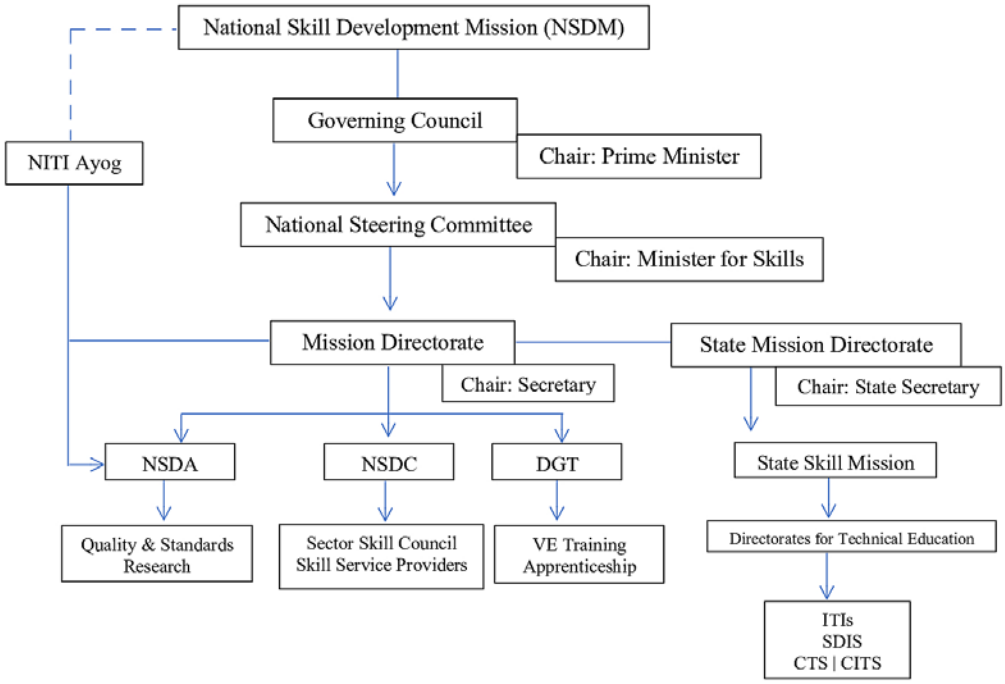

Figure 1: Programme Structure for the National Skills Development Mission

Accordingly, the technical vocational education and skills training is majorly implemented by the two key ministries viz., Ministry of Skills Development (MSDE) and Ministry of Human Resource Development (MHRD). A consolidated view of the national level institutional structure for Vocational Education Training system in India is illustrated in Figure 2. The figure also highlights the convergence to the common skills qualifications framework (NSQF).

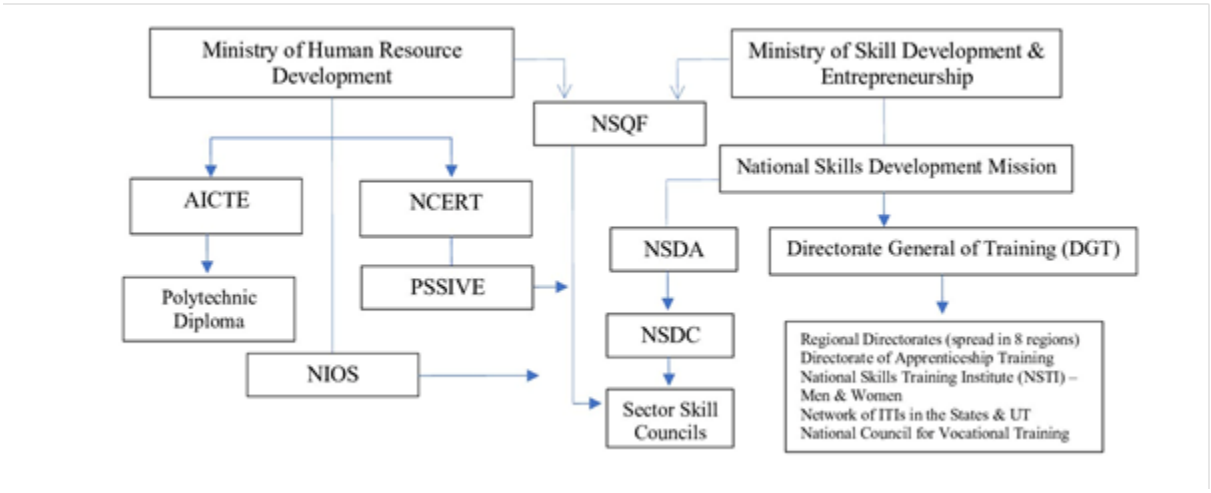

Figure 2: National Level Institutional Structure for Technical Vocational Education and Skill Development System in India

The technical vocational education in schools is vested with the responsibility of the Ministry of Human Resource Development and is being promoted by key initiatives like vocationalization of secondary education within the national mission project of the national government, the Rashtriya Madhyamik Siksha Abhiyan (RMSA). The primary, secondary and technical education are the Centrally Sponsored Scheme of the Government of India at the national level, and being the concurrent subject, the states actively participate in the processes. The vocationalization in the schools is from the grade 9 (class 9, age group of 14 years) through the Central Government supported Universalization of Secondary Education (Rashtriya Madhyamik Siksha Abhiyan). The objective has been to impart skill education & training at the school level and equip them will employable skills, thus to create interest in TVET at young (MHRD 2018).

While MHRD is responsible for TVET in the schools, its associated institutions viz., Central Board of Secondary Education (CBSE), responsible for national level terminal examinations at the school level secondary and higher secondary, National Institute of Open Schooling (NIOS), responsible for mainstreaming the school dropouts in the formal education system, National Council for Education Research and Training (NCERT) autonomous institution of the MHRD responsible for curriculum, textbooks and ICT resources for the school level also implements the vocational education, through its dedicated unit Pandit Sunderlal Sharma Institute for Vocational Education (PSSIVE). The All India Council for Technical Education (AICTE), a statutory body vested with responsibility for technical and higher technical education prescribes norms and standards, while University Grants Commission (UGC), a statutory body for higher education are engaged for preparation of syllabus and examination, recognition of prior learning, quality and standards, preparation of learning resources/ textbooks etc. respectively. BVoc/ MVoc and research level programmes are offered through this body. In almost all the cases the skills are provided by the relevant industry partner or skill training provider of AICTE (MHRD 2018).

Considering the entire technical vocational education and training (TVET) and skills development ecosystem is illustrated in the Figure 3. While the core education systems remains, the shaded portion indicate the TVET system with NSQF being part of the larger education and skills development system. Each block of training systems is linked and the entire system provides options for the learners permeability through the systems towards acquiring additional and higher level skills which is equivalent to higher qualifications of similar skill sets.

RPL is a certification process, which allows learners for transition from non-formal to an organized market by acquiring skill certification. It’s a process of recognizing previous learning, often experimental towards a given qualification and allows horizontal and vertical mobility in the new skills qualification framework (ref. Gazette Notification dated 27 December 2013, Government of India).

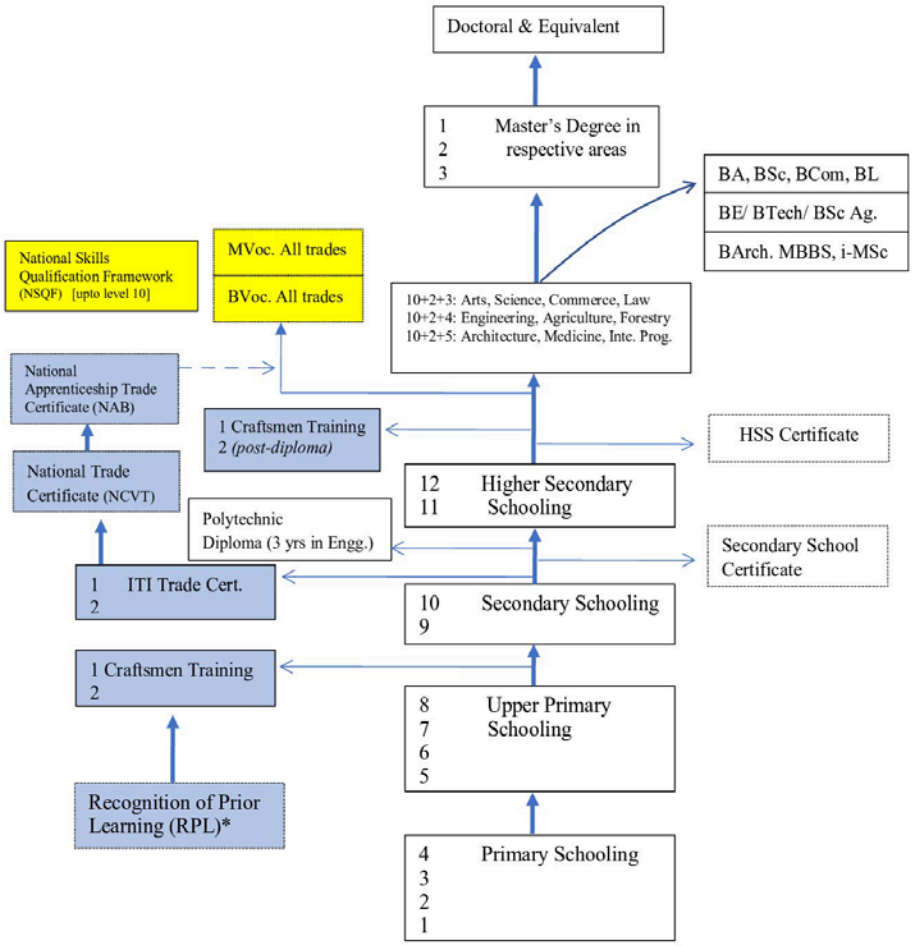

Figure 3: TVET Training and Skill Development System in India

3 Conclusions

The study highlights the uniqueness of TVET and skill development system in the broad skill ecosystem in India. Both the training systems converge with the common skills qualification framework and new skill development system is evolving with unique skills acquisition system for the aspiring learners. The learners have the option of earning an accumulated credit system and take choice of skills or education and a combination of both.

The convergence of the TVET system and the skills development system has achieved a level of significance to an extent in meeting the overall intended objectives. The need for flexibility, permeability and mobility across the sectors, for additional skills acquisition is yet to be experimented in the light of flexibility, accessibility and quality. The need of the present TVET system and skill development is to understand the changing trends in the vocationalization and understand the apprehensions and challenges. Thus, there is huge opportunity for the TVET providers to address the challenges at the local, regional and national level. This will address the employability of learners in the TVET system.

The TVET and skills development system has been adapted over a period of time to meet the specific needs and systemic preconditions of India. The TVET policy and the institutional structure have focussed on the demand-supply side of the labour market. The country has given high priority for TVET system and skill development at all levels. There has been requisite scientific, technological education, technical skills that can help develop country's economic growth and development (Chandrasekar 2015).

For a country like India the emphasis on TVET and skill development system is yet to reach the aspirations of learners and employers. The training on self-employment at this level has yet to achieve its importance. The human resource requirement with relevant skills needed for the employment have varied with time, trends of development in the market requirements and demand in the employment sector. These changes pose challenge to the training service providers, training units and relevant key stakeholders. India as a country needs to adopt a dynamic strategy for rapid economic growth and realizing the vision of Vision 2050 and beyond.

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