

## A PERSPECTIVE ON EVOLVING SKILL DEVELOPMENT ECOSYSTEM OF INDIA FOR REAPING DEMOGRAPHIC DIVIDEND

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Shabana Parveen\*  
Md. Manzood Alam\*\*

### ABSTRACT

*India has world's largest youth population. More than half of India's population is in working age group. This throws an opportunity to harness this demographic dividend by focusing on human capital development through technical and vocational education training (TVET). If done correctly India can become global supplier of skilled workforce. Realizing this opportunity Govt. of India has designed an Institutional structure led by Ministry of Skill development & Entrepreneurship (MSDE) to evolve an eco-system for skill development training involving Govt. bodies, Industry & Industry Association, Private Sector, Bi-lateral & Multilateral agencies and Civil Society and has set a target to train 400 million youth by 2022 under National Skill Development Mission(NSDM). Govt. is in process of setting up a regulator namely National Council for Vocational Education & Training (NCVET) to upgrade quality, uniformity and standardization. Other key Institutions are National Skill Development Corporations (NSDC), Directorate General of Training, State Skill Development Missions (SSDMs) and Industry bodies such as FICCI & CII at national level.*

*Govt. has launched multiple scheme such as Pradhan Mantri Kaushal Vikas Yojna (PMKVY), National Apprenticeship Promotion Scheme (NAPS), Pradhan Mantri Kaushal Kendras (PMKK), Deen Dyal Upadhyay Grameen Kaushal Yojna (DDUGKY) and others to provide Short-Term Skill Trainings, Recognition to prior learning (RPL) and Apprenticeship aligned with National Skill Qualification Framework (NSQF). In addition, programs like Vocationalisation of Secondary Education for school students, Community college and Bachelor of Vocation (B.Voc) for university students integrates vocational education with formal education. Key challenges are quality of basic education at primary & secondary level, quality of skill training by training providers, less investment by private sector, lack of infrastructure for simulated training, industry connect, low wages, migration, aspirational mismatch, fast paced emerging technologies etc. However India still has time to learn and take the corrective action as window for demographic dividend in India is available till year 2055-56, longer than any country in the world. Also interestingly demographic dividend window is available at different times in different states because of differential behaviour of the population parameters.*

**KEYWORDS:** TVET, MSDE, NCVET, NSQF, PMKVY, PMKK, Skill Training.

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### Introduction

The demographic dividend – according to United Nation Population Fund (UNFPA) means- 'the economic growth potential that can result from shifts in a population's age structure, mainly when share of the working-age population (15 to 64) is larger than the non-working-age (14 & younger and 65 & older) share of the population'. India as the second most populous country in the world is in the midst of major demographic transition. Around 60.3 percent of India's population falls within the working age

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\* Social Development Specialist, Bhubaneswar, Odisha, India.

\*\* Technical and Vocational Education & Training Specialist, Bhubaneswar, Odisha, India.

population (15 to 64 years) and about a quarter (27.5 percent) in the youth category (Census of India, 2011). India has world's largest youth population i.e. around one fifth of total world's youth population. It is estimated that by the year 2020, the average age in India would be 29 years compared to 37 years in China and US and 45 years in Europe and 48 years in Japan (Chandrasekhar et al., 2006). By 2040, India may become the largest single positive contributor to the global workforce over the next three decades<sup>1</sup>. The burgeoning population of India can become demographic dividend or demographic debacle. Once the dividend phase will pass, the country has to provide health, pension benefits to its larger elderly population.

According to an analysis done by the US Department of Labour and Boston Consulting Group, there will be skilled man- power shortage of 56.5 million by 2020 while India will have a surplus of about 47 million<sup>2</sup>. Through every year lost India is progressing towards an aging society. India will therefore, have to put its act together, create a sound and quality driven national vocational education and training system which can not only meet its own domestic requirement fully but also can become the supplier of skilled man-power to the rest of the ageing and aged world. Otherwise, 25 years down the line, we will also lament that "we became old without having become rich." The country, therefore, needs to design its strategy accordingly, immediately without any further loss of time.<sup>3</sup>

To reap the benefits of demographic dividend as early as possible, the Government has targeted to skill 500 million people by 2022 with a vision to make India as Skill Capital of The World. Though Skill development training or vocational education is not a new concept in India. In India, traditional arts are passed from generation to generation through different informal methods of skilling. In 1945 for re-settling defence service personnel of war workers Directorate General of Employment & Training (DGE&T) was set up. In 1950, it started to provide training services to all the civilians. The first Industrial Training Institute (ITI) was set up in 1969 by Ministry of Labour and Employment Government of India. Prior to 2015, DGE&T was a part of Department of Labour and Employment. In 2015, Craftsman Training Scheme (CTS) and Apprenticeship Training Scheme (ATS) was transferred to the newly established Ministry of Skill Development and Employment under Directorate General of Training (DGT). In last four years, the Ministry of Skill Development and Employment has taken several major steps for improvising the skill ecosystem. In this paper, we will try to study and understand the current skill ecosystem functioning under this Ministry.

### **Objectives**

- To understand and study the skill ecosystem of India.
- To understand different bodies and programme under the Ministry of Skill Development and Entrepreneurship

### **National Skill Development Mission and Ministry of Skill Development & Entrepreneurship**

A department of skill Development and Entrepreneurship (MSDE) was created under the Ministry of Youth Affairs and Sports in July, 2014 and was subsequently upgraded to full-fledged ministry on 9<sup>th</sup> November 2014. Industrial Training Institutes, Apprenticeships, Modular Employability Skills and other skill development activities were transferred from Ministry of Labour and Employment to the new Ministry on 16<sup>th</sup> April 2015. The steps show seriousness of Government for the vocational education and skill development training. It will help to remove the gap of demand and supply of manpower by aligning the activities of Government, Industry and private bodies.

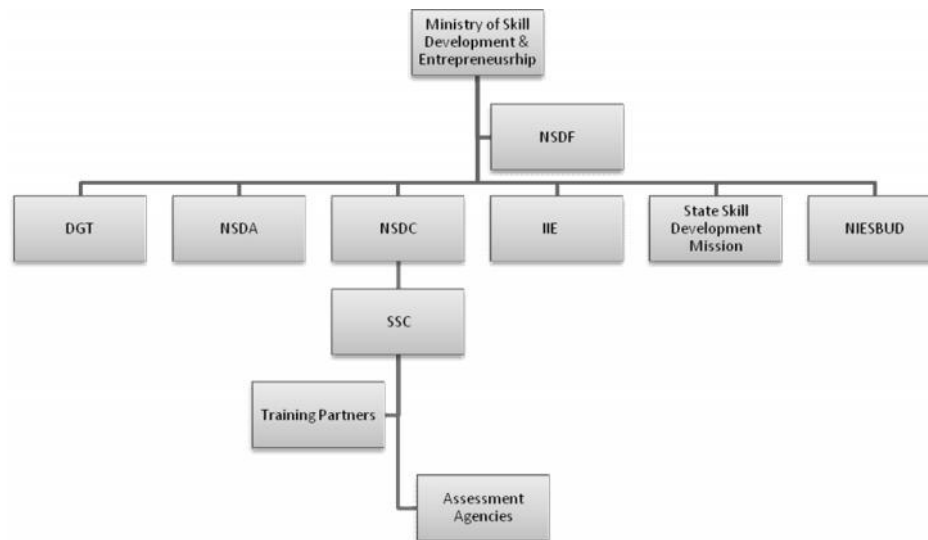
The Skill Mission was launched by the Prime Minister on 15<sup>th</sup> July 2015. The National Skill Development Mission (NSDM) chaired by Hon'ble is an initiative of Government of India to provide employable skill sets to the youth of the country for making them more productive in their work. The Mission provides the institutional framework for implementation and scaling up of the skill development activities across India. The mission statement of NSDM is " To rapidly scale up skill development efforts in India, by creating an end to end outcome-focused implementation framework, which aligns demands of the employers for a well-trained skilled workforce with aspirations of Indian citizen for sustainable livelihoods."

### **Institutional Framework**

Ministry of Skill Development and Entrepreneurship is the apex body which is planning and implementing various skill development activities across India. It is in an endeavour to make skilling aspirational for both youth and employers. Where the youth and his families select skill development as a

choice and employer/ industry acknowledges the acquired skill sets and competencies of the skilled workforce. The different organisations under MSDE are:

- Directorate General of Training (DGT)
- National Skill Development Agency (NSDA)
- National Skill Development Corporation (NSDC)
- Sector Skill Councils (SSC)
- National Skill Development Fund (NSDF)
- Indian Institute of Entrepreneurship (IIE)
- National Institute of Entrepreneurship and Small Business Development (NIESBUD)



- **Directorate General of Training (DGT)**

The Directorate General of Training consists of the Directorate of Training and Directorate of Apprenticeship Training. This includes a network of Industrial Training Institutes (ITIs) in States; National Skills Training Institutes (NSTIs), National Skills Training Institutes for Women (NSTI-W) and other central institutes. The 4 major vocational schemes under DGT are:

- Craftsman Training Scheme (CTS)
- Apprenticeship Training Scheme (ATS)
- Skill Development Initiative Scheme (SDIS)
- Craftsman Instructor Training Scheme (CITS)

ITIs are one of the oldest and important institutions in imparting vocational education training in the country. ITIs are affiliated by National Council for Vocational Training (NCVT). There are 13,348 (including both government and private) are present which provides training to around 19 lakh youths in 126 trades. (Source: NCVT MIS porta; data as on 6<sup>th</sup> Jan 2017)

- **Indian Institute of Entrepreneurship (IIE)**

The Indian Institute of Entrepreneurship (IIE) was established in the year 1993 in Guwahati by the erstwhile Ministry of Industry (now the Ministry of Micro, Small and Medium Enterprises), Government of India as an autonomous national institute with an aim to undertake training, research and consultancy activities in small and micro enterprises focusing on entrepreneurship development.

- **National Institute of Entrepreneurship and Small Business Development (NIESBUD)**

The National Institute for Entrepreneurship and Small Business Development is a society under the Ministry of Micro, Small and Medium Enterprises. The major activities of NIESBUD includes training, research, evaluation studies, development of course curriculum, publication, cluster interventions, incubation centers etc.

- **National Skill Development Agency (NSDA)**

NSDA is an autonomous body which operationalises the National Skill Qualifications Framework (NSQF) for quality assurance of skilling initiatives in the country. NSDA acts as a nodal agency for State Skill Development Missions. The notification of Ministry of Finance (Department of Economic Affairs) notifies following functions for NSDA:

- Take all possible steps to meet skilling targets as envisaged in the 12<sup>th</sup> Five Year Plan and beyond;
- Coordinate and harmonize the approach to skill development among various Central Ministries/Departments, State Governments, and NSDC and the private sector;
- Anchor and operationalize the NSQF to ensure that quality and standards meet sector specific requirements;
- Be the nodal agency for State Skill Development Missions;
- Raise extra-budgetary resources for skill development from various sources such as international agencies, including multilateral agencies, and the private sector;
- Evaluate existing skill development schemes with a view to assessing their efficacy and suggest corrective action to make them more effective;
- Create and maintain a national data base related to skill development including development of a dynamic Labour Market Information System (LMIS);
- Take affirmative action for advocacy.

- **National Skill Development Corporation (NSDC)**

National Skill Development Corporation (NSDC) is a not-for-profit public limited company incorporated on July 31, 2008 under section 25 of the Companies Act, 1956 (corresponding to section 8 of the Companies Act, 2013). NSDC was set up by Ministry of Finance as Public Private Partnership (PPP) model. The Government of India through Ministry of Skill Development & Entrepreneurship (MSDE) holds 49% of the share capital of NSDC, while the private sector has the balance 51% of the share capital.

NSDC aims to promote skill development by catalyzing creation of large, quality and for-profit vocational institutions. Further, the organisation provides funding to build scalable and profitable vocational training initiatives. Its mandate is also to enable support system which focuses on quality assurance, information systems and train the trainer academies either directly or through partnerships. NSDC has around 443 Training Partners, 8503 Training Centers, 1870 job roles, 38 Sector Skill Councils. It is the main body which looks after the implementation of Pradhan Mantri Kaushal Vikas Yojna. Development of Qualification Packs, National Operational Standards, Training of Trainers, Training of Assessors, World Skill Competitions etc is few of the activities of NSDC.

- **Sector Skill Councils (SSC)**

SSCs are the autonomous industry led body promoted by NSDC. The SSCs are also the certifying body for different schemes of skill development. The curriculum, occupational standards, Training of Trainers, Training of Assessors, affiliation of Training Partners, Assessment Bodies are few of the main activities of SSC. 38 SSCs are functional under MSDE with over 600 Corporate Representatives in Governing Councils of these SSCs. The list of SSCs is given below:

Priority Sector	Automobiles Retail IT/ITes	Media & Entertainment Healthcare Gems & Jewellery Leather Electronics BFSI	Logistics Construction Food Processing	Life Science Hospitality Textile Apparel and made ups Handicrafts Power Iron & Steel	Management Hydrocarbon Chemical & Petro Chemicals Furniture & Fittings PwD Green Jobs
Large Workforce		Rubber	Telecom Capital Goods Agriculture	Aerospace & Aviation Mining	Sports Paints & Coatings
Informal Sectors			Plumbing	Beauty & Wellness	Domestic Workers

- **State Skill Development Mission (SSDMs)**

Off late Central ministries realised that it is extremely difficult for them to monitor the quality of delivery of skill development programs across India hence it was decided that State Govts. need to be involved in the program implementation and monitoring and with this objective State skill development mission has been formed in each state as a nodal body to implement all centrally and state funded skill development programs in the state. Majority of SSDMs are autonomous body registered either as not for Profit Company or society headed by a Managing Director or Chief Executive Officer.

**Programmes/ Schemes under Ministry of Skill Development & Entrepreneurship (MSDE)**

- **Pradhan Mantri Kaushal Vikas Yojna (PMKVY), the flagship scheme of MSDE**

In 2013, Skill Certification and Monetary Reward Scheme (STAR) was started to cover all job roles in all sectors. It mostly covered the job roles of National Skill Qualification Framework (NSQF) level of 1 to 4. Under this scheme, 14.15 lakh trainees have been trained, 8.79 lakh certified and 1.2 lakh persons have been placed. Due to poor infrastructure, training quality and improper implementation the scheme failed to achieve the desired objective of skilling. In 2016, with an outlay of Rs 12,000 crore PMKVY was started as the flagship scheme of MSDE to impart skill training to one crore people over the next four years (2016-20). Individuals with prior experience or skills are also upskilled, assessed and certified under Recognition of Prior Learning (RPL). The scheme is implemented by state governments (CSSM) along with central government (CSCM). Under Centrally Sponsored Centrally Managed component, target of 79.5 lakh candidates was assigned to NSDC. A target of 20.5 lakh was allocated to states under Centrally Sponsored State Managed component. New organisations, Pradhan Mantri Kaushal Kendra (PMKK), Academic Institutions, Govt MoUs, PMKVY Training Centres etc can get target allocation under PMKVY RFP. Post allocation of targets, the applicant organisations can start training in proposed centres only after successful accreditation and affiliation of each training centre under SMART\* and obtaining 4/5 star rating in accordance with the centre accreditation or affiliation guidelines.

- **PMKVY Dashboard as on May 2019**

	<b>Training Centre*</b>	<b>Training Partner*</b>	<b>Job Roles</b>	<b>Certified Candidates</b>
Recognition of Prior Learning (RPL)	25507	145	633	1405592
Short Term Training (STT)	8900	2521	271	2128764
Special Projects	1037	81	166	47305

\*The Training Center or Training Partner mentioned here may not be currently active

- **Skill Management and Accreditation of Training Centres (SMART)**

SMART provides a single window IT application that focuses on the Accreditation, Grading, Affiliation and continuous monitoring of the Training Centres in the skill ecosystem and intends to address issues like quality benchmarks, fostering excellence in Training Centres, enabling trainees to make informed choices. Training Partner registers its Training Centres through Centre Accreditation Application Form (CAAF) which is a self-assessment report on SMART. Post desktop assessment, physical inspection the centre is affiliated with respective SSCs to impart training on NSQF aligned job roles. The Centres are assessed between 1 to 100 scores on the basis of assigned indicators. The corresponding scores are converted to Grades, represented by a Star rating. The Training Centres are graded between 1 to 5 Stars where 5 Star denotes the highest grade and 1 Star the lowest. PMKVY target allocation is based on the grading of Training Centres.

<b>Percentage of Scores</b>	<b>Grade</b>
85 -100 %	5 Star
70 - 84 %	4 Star
55 - 69 %	3 Star
40 – 54 %	2 Star
Below 40 %	1 Star

- **India International Skill Centre (IISC)**

To facilitate overseas mobility of Indian workforce India International Skill Centres were set up for provision of skill training and certification benchmarked to International Standards. Ministry of Skill Development and Entrepreneurship provides support for domain training and Ministry of External Affairs gives Pre-Departure Orientation Training (PDOT) under Pravasi Kaushal Vikas Yojna (PMKV) framework. NSDC is implementing this programme through various Training Partners.

- **New Apprenticeship Act 2014**

The old Apprentices Act, 1961 was enacted by Govt. of India with the objective of regulating the program of training of apprentices in the industry by utilizing the facilities available therein for imparting on-the-job training however, Government has brought comprehensive amendments in the Act in December 2014 & November, 2017 to make it more attractive for both industry and youth. Key amendments in new act are:

- Replacing the outdated system of trade wise and unit wise regulation of apprentices from the band 2.5% to 10% of total workforce ( including contract workers)
- Introduction of optional trades.
- Removing stringent clauses like imprisonment. Penalty in the form of fines only.
- Allowing industries to outsource basic training.
- Scope has been extended to non – engineering pass outs.

- **National Apprenticeship Promotion Scheme (NAPS)**

Govt. of India has launched NAPS in order to encourage Industry and trainees for apprenticeship. The main components of the scheme are:

- Sharing of 25% of prescribed stipend, subject to the maximum of Rs 1500/- per apprentice, per month with the employers.
- Sharing of Basic Training cost, only for fresh candidates, who come directly to apprenticeship training without any formal trade training. Basic training cost will be limited to Rs 7500/- for a maximum of 500 hours / 3 months. Industry can outsource the basic training. Basic training costs will be given to the Basic Training Provider (BTP).
- Courses under PMKVY will be linked with apprenticeship training. These courses will be given the status of ' optional trade'
- Apprenticeship training can be provided to apprentices in both 'designated' and 'optional' trades. 'Designated' trades are those as notified by the Government (at present there are 259 available on the apprenticeship portal). PMKVY / MES courses with duration of minimum 500 hours of basic training with 1 year of practical training and courses created by the employer- in a trade decided by the employer, with a minimum 500 hours of ' basic' training an 1 year of practical( shop floor ) training will be declared as ' optional' trades for apprenticeship.
- The NAPS will cover all categories of apprentices, except, Graduate, Technician and Technician (Vocational) apprentices who are covered by the scheme on apprenticeship administered by Ministry of Human Resources.

- **Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP)**

SANKALP project is implemented in mission mode through World Bank support to achieve the objective of National Skill Development Mission. The key areas of SANKALP are institutional strengthening, quality assurance, inclusion and expansion of skills through Public Private Partnership. SANKALP has two components: (1) National and (2) State Component. Setting up National Skill Certification Body, National Accreditation Board within NSDA, and National Skill Research Division within NSDA, strengthening NSDA, development of Labour Market Information System (LMIS), Skill Development Management System (SDMS), development of Skilling Resource Marketplace- Kaushal Mart, development of Takshila- National portal for Trainers, capacity creation and entrepreneurship development are few of the activities under National component of SANKALP project. SANKALP aims at training of 2,00,000 people on entrepreneurship and helping over 4000 such enterprises to scale up. In State Component, States are getting grants to reform and build capacity based on annual scorecard.

- **Vocationalisation of Schools**

National Skill Development Corporation and Sector Skill Councils under Centrally Sponsored Scheme of Vocationalisation of Secondary Education of Ministry of HRD is implementing skill training aligned to National Skill Qualification Framework. The course runs for four years from Class-IX to Class XII in accordance to the Qualification Pack of SSC. State provides basic infrastructure. NSDC Training Partner equip the school with lab and impart training. Two trades are offered in each school and each trades has 50 students. SSC conducts assessment and certification of skill component while State Education Board assess the general studies / theory.

- **Vocationalisation of Higher Education**

The model is designed to integrate skill education into academics of Universities. The job roles offered are of progressive in nature from NSQF level 5 to level 7. NSDC is working with 21 Universities, UGC and AICTE catering more than 1200 colleges and 400 community colleges across the country. Assessment and certification is done by the respective SSC.

**Common Norms for Skill Development Scheme**

Different Central Ministries as well as State Governments implement their own skill development schemes. In order to bring uniformity and standardisation in the implementation of these schemes by different bodies, Government of India approved a Common Norms Committee as the apex body to update and revise the Common Norms. According to Common Norms, the base cost of the skill training costs under any scheme of Government of India should be given as per the schedule I. The job roles are categorised into I, II, III and should be aligned to NSQF. The job roles are classified into categories on the level of capital expenditure and operational expenditure for imparting the course.

**National Council for Vocational Education and Training (NCVET)**

During October 2018, the Union Cabinet chaired by Shri Narendra Modi, Hon'ble Prime Minister approved the merger of existing institution National Council for Vocational Training (NCVT) and National Skill Development Agency (NSDA) into National Council for Vocational Education and Training. The primary functions of NCVET will be

- Recognition and regulation of awarding bodies, assessment bodies and skill related information providers.
- Approval of qualifications developed by awarding bodies and Sector Skill Councils (SSCs).
- Indirect regulation of vocational training institutes through awarding bodies and assessment agencies.
- Research and information dissemination.
- Grievance redressal.

**Major Schemes under Different Ministries**

Around 20 Ministries/ Departments run their own scheme of skill development training. The training cost, curriculum for same job role was different earlier. Ministry used to decide their own cost, curriculum, and training requirement. Common Norms, Occupational Standards have brought uniformity and standardisation among different schemes. The major skill development schemes are:

S. No.	Name of the Ministry/Department	Name of the Scheme
1	M/o Rural Development	Deen Dayal Upadhyay Grameen Kaushalya Yojana (DDU-GKY) Rural Self-Employment Training Institute (RSETIS)
2	M/o Housing and Urban Poverty Alleviation	National Urban Livelihood Mission
3	M/o Textiles	Integrated Skill Development System (ISDS)
4	M/o Agriculture and Farmers Welfare	National Food Security Mission -Farmers Field School Agric-clinic and Agri-Business Centres Scheme Extensions reforms- Farm School Krishi Vigyan Kendras (KVKs)
5	M/o Micro, Small and Medium Enterprises	Entrepreneurship Skill Development Programmes (ESDPS) Management Development Programmes (MDPS) Assistance to Training Institutions Scheme (ATI Scheme) Skill Upgradation & Quality Improvement and Mahila Coir Yojna (MCY)
6	M/o Tourism and Culture	Scheme of Capacity Building for Service Provider Hunar Se Yojna
7	M/o Human Resource Development	Vocationalization of School Education Scheme of Community Development through Polytechnics National Institute of Open Schooling Jan Shiksha Sansthan
8	M/o Communication & IT	Scheme for financial assistance to States for Skill Development in Electronic System Design and Manufacturing (ESDM) Sector Skill Development in ESDM for Digital India

9	M/o Tribal Affairs	Vocational Training For Tribal Youth
10	M/o Women and Child Development	Support to Training and Employment Programme for Women (STEP)
11	M/o Commerce and Industry	Indian Leather Development Programme
12	M/o Commerce and Industry	Indian Leather Development Programme
13	M/o Development of North eastern Region	Capacity Building & Technical Assistance
14	M/o Home Affairs	UDAAN
15	M/o Minority Affairs	SeekhoaurKamao Nai Roshni
16	M/o Social Justice and Power Empowerment	Financial Assistance for Skill Training of Persons with Disabilities National Scheduled Castes Finance & Development Corporation (NSFDC) National SafaiKarmacharis Finance & Development Corporation (NSKFDC) National Backward Classes Finance & Development Corporation (NBCFDC)
17	M/o Food Processing	Skill Development Programme under NIFTM and IICPT
18	M/o Chemicals and Fertilizers	Central Institute of Plastic Engineering and Technology (CIPET)

Source: Ministry of Skill Development and Entrepreneurship Annual Report 2015-16

#### SWOT Analysis (Strength, Weakness, Opportunity and Threat)

##### • Strength

- **Institutional Framework:** Our Government spends reasonable amount for skill development in the country. Formation of Ministry of Skill Development and Entrepreneurship shows seriousness of Government in this direction. NSDA, NSDC, SSC creation is also the laudable effort towards the skilling effort.
- **Robust mechanism of centre accreditation and affiliation:** The number allocation to centres for all PMKVY and non-PMKVY projects will be done through SMART portal. It will ensure the quality infrastructure, equipment, environment for the training.
- **National Occupational Standard aligned to NSQF level:** National Occupational Standards describes the performance or task required to be done by an individual when carrying out different functions at work place. This outcome based approach of NSQF aligned NOS standardises and brings uniformity in the job roles.

##### • Weakness

- **Demand driven skilling:** The skilling should be done demand driven rather than supply driven. But it is observed that involvement of industry is minimal in defining demand of manpower. So the training is imparted according to the allocation of numbers in any particular area or centre.
- **Lack of minimal aspiration attached:** In India formal education is the priority of the students as well as of parents. Vocational education is considered for the less privileged and drop out students. There is lack of vertical and horizontal mobility in vocational education.
- **Lack of International Standard Training and Assessment:** Somehow, the vocational training has become a profitable business for few non serious entities. Training provided by few Training Partners are not of good quality and even it cannot match international standards. Earlier the sole assessment and certification body was National Council of Vocational Training (NCVT), but now there are many assessment bodies which includes SSCs and Skill Universities. The assessors of these assessment bodies are generally not well qualified and don't have enough industrial experience. So quality of assessment hampers which dilutes the training quality. Though Training of Assessors are being conducted, it should be more handled more professionally.
- **Poor Employment Rate:** The candidate joins vocational education not only to enhance his/her existing skills but also to get employed. Majority of the skill training schemes are employment linked. Still we have a high unemployment rate. Equal salary level for skilled



and unskilled worker at initial stage, poor working condition in most of the places, issues with migration are some of the factors which hinders the youth to join the job provided by the Training Partner.

The numbers allocated to Training Partner are not employers demand based. This creates problem for finding a job opportunities for the certified candidates. A proper effective LMIS system is yet to be established in our country. Gradually industry needs to realise the productivity gains linked with skilled manpower.

- **Free Skilling:** The training provided by the Governments schemes doesn't charge anything from the candidates. Even in few schemes of Ministry of Social Justice and Employment, stipend is given to the candidates. The stipend motivates the candidates to attend the centre rather than the training.
- **Training of Trainers (ToT) and Training of Assessors (To A):** Quality Trainer and Assessor are the vital entity of the skill training. So it should not be neglected at any cost. The Takshashila portal created to act as a repository and registration database for all certified and interested trainers and assessors is a right step in the right direction.

- **Opportunity**

- **Skill Capital for World:** India has the opportunity to become global supplier of skilled workforce because there are many countries that has ageing population while half of India is in working age group and also there is a demand for Indian skilled workforce in many parts of the world including middle east and others. If we succeed in providing right skills to our youth, it will have direct impact on our economy.
- **Increase in Employment & Entrepreneurship:** Unemployment and underemployment is one of the major concern for Government however Industry is in need for skilled workforce. This gap can only be bridged through skill development and creating a conducive environment for entrepreneurship promotion.
- **Increase in participation of female workforce:** As per report published by consulting firm Deloitte, female participation in workforce has dropped to 26% in year 2018. Through skill development in emerging areas in context of fourth industrial revolution and also breaking the stereotype of male dominant sectors we have the opportunity to make our workforce more gender inclusive.

- **Threat**

- **Competition from other developing countries:** Many developing countries has realised the opportunity and took a lead in developing their workforce as per international standards. Even rich middle east countries have started diversifying their economy and started skill development and skill upgradation of their youth to tackle rising unemployment.
- **Quality of formal education:** Quality primary and secondary education is the basic building block of technical vocational education & training however, quality of primary and secondary education is a cause of concern for India. It need huge investment from Government and private sector to improve the performance of government schools in rural and semi urban areas.
- **Aspirational mismatch:** In India there is a social stereotype where vocational education is considered inferior to formal / higher education and considered suitable only for school dropouts or youth from marginalised communities. Similarly, a blue-collar job is considered low on social status hence youth does not aspire for vocational education.
- Majority of youth aspire for Government job and invest 4-5 years to prepare for a Govt. Job. In addition, youth prefer to go to glamourized sector such as IT however, demand lies in sectors like construction and others.
- **Migration:** Majority of India's population live in rural areas however employment opportunities are in industrial clusters, it require people to migrate that is a big challenge as it increases the cost of living which is industry is reluctant to pay. In addition, there is cultural difference which youth at time finds difficult to adjust.

### Conclusion

As per a recent study done by United Nations Population Fund (UNFPA), window for demographic dividend opportunity in India is available till year 2055-56, longer than any country in the world. Also interestingly demographic dividend window is available at different times in different states because of differential behaviour of the population parameters. At the same time, with the onset of the fourth industrial revolution, disruptive changes to business models are expected which will have profound impact on the employment landscape over the coming years and is creating the need to re-evaluate necessary skill set and may push the existing gap further. The increase in employment rate will improve the scenario of India be it rural or urban. Hence, it requires an integrated approach and coordinated effort between Central Govt. Ministries, State Govts., Policy think tanks, Bi-lateral & Multilateral Institutions, Private sector industries and Industry Associations. Some of the key focus areas should be

- Integration of vocational education with formal education at Secondary, Senior Secondary & University level.
- Apprenticeship promotion in manufacturing as well as services sector
- Opening new ITIs and Polytechnics focusing on emerging trades such as AI, 3D Printing, Robotics, Block chain etc
- So far, ITIs has been focused on industrial trades only. Now they need to include more trades across sectors including services.
- Promotion of Incubation centres.
- Development of ecosystem for entrepreneurship development focused on MSMEs.
- Introduction of entrepreneurship curriculum at secondary and senior secondary level
- Past experience shows short – term training of 1 to 2 months are not of much relevance and there is quality issue hence focus should shift to long term course of 1 year or more duration with in-build On the Job Training (OJT) component.

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