Inspira-Journal of Commerce, Economics & Computer Science (JCECS)
ISSN : 2395-7069 General Impact Factor : 2.4668, Volume 04, No. 02, April-June, 2018, pp. 114-122

SKILLING INDIA THROUGH VOCATIONAL EDUCATION AND TRAINING IN INDIA

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ABSTRACT

In an era of increasing globalization and industrialization, international competitiveness requires dynamic workers with adequate skills capable of supporting industrial growth and expansion to other markets. As countries experience structural changes like change in growth rate, change in composition of sectors etc. across the economy and shift to a higher level of technological advancement and innovation, there is increasing and progressive demand for more complex skills by the growing sectors. This requires not only broad access to good quality primary and secondary education but also relevant vocational education and training. Quality skills acquired by the workforce helps to meet evolving production demands of the domestic as well as international market. They help in stepping upwards in global value chains and boost trade.

KEYWORDS: *Quality Skills, Vocational Education, Secondary Education.*

Introduction

Appropriate vocational education and skill training program improve employability of graduates and the existing human resources. They are crucial for increasing employment, productivity, and innovation, thereby supporting a strong, inclusive, and sustainable growth. They also reduce the current and future skill supply–demand mismatches in the labour market. According to reports at international level, surplus of low-skilled labour[1] and a shortage of medium-skilled workers are expected in India. Thus, in the present scenario, vocational training and education has a significant role to play in upgrading the skill levels of Indian workforce. Given the dismal position of vocational education in the country, India should accelerate the development of modern vocational education that will not only focus on technological advancement but also improve the core values of workers toward professionalism and excellence.

Interrelationship between Skill Development and Socio- economic Development

Skill development and socio-economic development of the economy are closely linked. General education along with vocational education and training will impart practical knowledge will develop skills in the workforce. It will lead to more efficient production system with reduced cost incurring. Further the skill development facilitates cycle of productivity by providing knowledge and technology in the transitional society. According to former DTI and HM Treasury (2006) "Skills raise total factor productivity and labour productivity in number of ways,

- Skills prepare workers to perform more complex tasks more effectively and produce high value products.

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1 Mckinsey & Company.2012. The World at Work: Jobs Pay and Skills For 3.5 Billion People

- Investments are more profitable when combined with skilled labour.
- Skilled labour respond better to the changing working environments and are good at adopting new technology and processes.
- Workers often learn from highly skilled co-workers. These effects spill in wider form to the society."[1]

Thus, well developed working and better management is observed when skilled labour combines technology with physical capital. Enterprises also experiences larger projects as they can invest more in innovation and yield high value products. Generation of high value products leads to more returns and more profits. the cycles of growth of income at both the individual level and firm level generates cycles of high productivity and employment. If the enterprises do not find employees as per requirement, both individuals and enterprises bear cost. High productivity is essential to remain competitive at national and international level. Adoption of technology imported from other nations is only possible with the development of human capital. In order to boost the growth, productivity and employment across various sectors the exports from agriculture, manufacturing and service goods are essential. So that that there is employment and growth across the sectors. For this it is essential that labour across all sectors are skilled efficient.

Indian Economy at a Glance

The Indian economy comprises of 1227.40 million people of which about 38% (472 million) are employed. About 27% of the population is of students. India economy is highest growing economy in the world, but it is largely agriculture based. Most of the workforce is still employed in agriculture sector. The productivity level in the agricultural sector is very low and most of the employment is disguised. Although agriculture contributes about 47.5 percent of GDP,but its share of employment is low (14.1%) in comparison to other sectors in the economy. Highest contributors to GDP has been by services sector. The structural transformation in the economy is weak and poor as the employment generation across sectors has not been in proportion to the GDP contributed. For sustainable growth, manufacturing sector should be well developed.

The Indian economy records highest level of growth in the world and neighbouring countries, but the employment generation has been modest. This is popularly known as "Jobless growth" However the fact is small percentage of growth in employment (2.2%) This is evident from the fact that elasticity of employment to GDP has declined over time. [2]

In the last few decades, there has been high growth in productivity, but it is still very low in comparison to other nations. Productivity growth due to change in employment composition by industry during the period of 1993-2003 has been 0.9 % where productivity growth due to change in employment composition by institutional sector has been negative. There is huge productivity difference in formal sector and informal sector. Formal sector is about 18 times more productive than agriculture sector.[3]

In comparing with the other nations productivity is least among the Asian countries. India has the highest number of informal workers (about 90%) and most of employment has been generated in informal sector, where the productivity is very low.

Need for Quality VET in India

Quality Vocational Training and Education is important for the economy due the following transitions taking place in the economy:

- The huge proportion of Indian population (about 30%) is illiterate. These low literate switch to low productive jobs in the informal sector. Some sort of literacy and numeracy is required for entry to the vocational courses. Thus, to utilize the human resources for the development it essential to develop skilled workforce.
- Without proper education, it is difficult to adapt to technological changes. The enrollment rates at initial level of education has increased. But they have been followed by asignificant proportion of drop-out rates at different educational levels. Over the years rates have declines but they are

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1 Exploring the Links Between Skills and Productivity: Final Report by Gambin Lynn, Institute of Employment and Research, University of Warwick, Covetry. Pg 4

2 Dev S. Mahendra. Unemployment in Asia. Working paper 2014, IGIDR

3 What is holding back productivity growth in india?recent evidence by sean m. Dougherty , Richard herd and Thomas chalaux, OECD JOURNAL: Economic studies .2009 pg 3

yet significant in proportion. These drop-out are more liable to switch to jobs which are less productive.

- 90% of workforce is employed in informal sector. Where productivity is low, as well quality of employment is low. To acquaint them with the new technology and boost productivity, there is need for vocational training that cannot be acquired through traditional means.
- According to FICCI survey on labour, Indian companies are seriously facing problem regarding the availability of labour. About 90% of companies which participated in survey said that they are facing shortage of labour.[1]
- Demographic Need: India is nation of population with more than one billion in which 500 million workforce who is as such it is essential to swatch to VET to reap demographic dividend. The world today is short of labour while India is possessing huge, among the demography also youth unemployment is high.
- Economic Need: India has a huge informal sector which consists of 90% MSME. The MSME contribute high amount of GDP in India. The basis of India economy is service sector. Mainly the growth of the economy has been jobless growth. And the manufacturing sector is underdeveloped. Also, the growth has been majorly due to consumption of goods & service of the Indians.

The productivity of Indian sector is one among the lowest in the world. In order to compete globally it is the need of the hour to skill the large labour force of India and become a developed Nation from low income Nation.

Beside this demographic opportunity, another opportunity at global level is that the global economy is expected to witness a skilled man power shortage to the extent of around 56.5 million by 2020 (FICCI, 2012) but India would be the only country with a surplus of 47 million youth. Thus, India can take advantage of this and act as supplier of manpower to the world.

India should provide quality education and develop the skills of its large young population to fully reap the benefits of the demographic dividend. A steady annual GDP growth of 8-9 per cent is required to achieve India's inclusive and sustainable development targets, which requires significant progress in several areas, ably supported by a skilled workforce.

Vocational Training and Its Types

Vocational training aims to develop skills apt for vocation or occupation. Individuals pursue vocational training formally or informally. NSSO categorizes structured training programmes as formal training they follow a defined curriculum, period of training and have entry level requirements. Those who gain expertise through continued exposure in to a vocation in family (through ancestors), self-effort, and other sources than structured programmes have been categorized into informal vocational training.

bout 31.7% of Indian workforce is not literate. In terms of absolute number this is 130 million. This coincides with the figure by OECD economic survey on India that is about 30% of indian workforce is neither in education nor in training (NEET: not in employment, education or training)[2]. The entry level requirement for vocational education is class VII at present. About 70% of the present workforce is below secondary education. As such it is difficult for them to enroll for vocational courses.

Comparison of Vocational Training in Youth and Total Workforce

During the period of 2009-2010, nearly half the graduates were in the age group 15-29 years. There was mere addition of approximate 1.6 million in both rural and urban areas when entire workforce was considered. Among the vocational trainees, approximate 60% were from urban areas.

Table1 : Percentage of Vocational Training in Youth in Comparison to Total Workforce Year (2009-2010 and 2011-12)

	15-29 years		15-59 years	
	2009-10	2011-2012	2009-10	2011-12
Rural	1.2	2.3	0.9	1.3
Urban	3.9	6.0	3.4	4.2
India	2.0	3.5	1.6	2.2

Source: NSSO Report 551 and 566, MOSPI, GoI

[1] FICCI survey on labour shortage in industry.

[2] Economic Survey of India 2017-OECD

Table1above shows that youth (15-29 years) about 2.3 participated in vocational training. When entire workforce of 15-59 years is taken only 1.3 percentage is seeking vocational training. During 2009-2010, percentage was lesser for both youth and for entire working group. Hence modest increase in participation for both age groups can be seen. Urban youth is more actively seeking vocational training than the rural youth. The percentage improved is 1.5% for youth while 0.6 for entire workforce.

Vocationalization at Secondary Education

Vocationalisation at secondary education has been marked as important for improving employment levels in the workforce. (Table 2)

Table 2: Percentage of Vocational Pupils to Total Pupils at Secondary Educational Level

	2011	2012	2013	2014	2015
Brazil	5.6	6.4	3.51	3.7	3.8
China	20.5	20.7	22.41	21.68	20.38
India	-	-	1.25	1.22	1.35
Indonesia	16.6	18.74	18.76	18.59	17.72
Russian Federation	0	17.19	17.025	16.37	16.17

Source: *World Bank Database*

Table 2 shows that the vocational graduates at the secondary educational level are lower than in comparison to the other countries. However, there is modest increase from 1.25% to 1.35% during 2013-2015, but for the continue supply of trained labour forces to the vocational education and training system at higher levels, this figure is important. There is need to improve this percentage to reach the target of skill development. As the Vocationalisation at the secondary education has been considered crucial by various committees from time to time, these outcomes are unfavourable.

Labour Outcomes of Vocational Education and Training

Labour outcomes are generally discussed in terms of employment, unemployment and wage rate. The following section discusses the labour outcomes of vocational graduates at the rural urban areas, also between the formal and informal training. It discusses the nature of employment which they get into after vocational training. Lastly it brings out the entire picture of alone aspects.

Table 3: Percentage of persons aged 15 years & above by main activity & educational classification according to Usual Principal Status (PS) approach

	Employed	Unemployed	Not in labour force
Not literate	48.7	0.7	50.6
Below primary	53.9	0.8	45.4
Primary	58.6	1.0	40.5
Middle	54.2	1.7	44.1
Secondary	43.4	2.0	54.5
Higher secondary	40.1	3.8	56.2
Diploma /certificate	44.2	7.4	48.4
Graduate	54.6	8.7	36.7
Post graduate	64.0	8.9	27.0
Overall	**49.9**	**2.6**	**47.5**

Source: Report on Education, Skill Development and Labour Force (2013-14), Volume III, Government of India Ministry of Labour & Employment Labour Bureau Chandigarh

The table 3 above shows that proportion of unemployed persons has increased with the level of education. There is higher rate at graduate and post graduate level. This implies that outcomes of higher education have been poor in India. The general education has not been able to keep pace with the evolving needs of labour. Employability is poor for diploma and certificate courses, which are part of vocational education system.

Employment and Unemployment Levels in Vocational Graduates

Table 4: Percentage of persons above 15 years by broad activity who received vocational training according to Usual Principal Status Approach

	Received	Employed	Unemployed	Not in Labour Force
Rural	6.2	77.6	6.2	16.2
Urban	8.2	74.0	5.9	20.1
Rural Urban	6.8	76.3	6.1	17.6

Source: Report on Education, Skill Development and Labour Force (2013-14), Volume III, Government of India Ministry of Labour & Employment Labour Bureau Chandigarh

Nearly 8.2 and 6.2 percent above 15+ years received vocational training urban & rural areas respectively. Out of them nearby 92 percent are employed. This figure includes both formal and informal vocational training. During the period of 2013-2014, employment percentage in rural, urban and at all India has been enough among the vocational graduates.

Table 5: Activity status of those receiving /received vocational training by the nature of the training (in%)

	Employed	Unemployed
Formal training	85.5	14.5
Informal training	96.6	2.8

Source: Report on Education, Skill Development and Labour Force (2013-14), Volume III, Government of India Ministry of Labour & Employment Labour Bureau Chandigarh

The individuals seeking formal training are lesser employed than those who have been informally trained. This is broad activity status by the nature of the training. Formal training in institutional set up has to be more and more appropriate to the demand of individuals and target groups. Informal training is more dominant form of training at both rural and urban areas. It is hopeful that employment rates of formal training will improve.

Table 6: Broad activity status of persons above 15 years above who Received / Receiving Vocational Training

	Type of Training	Receiving /Received	Employed	Unemployed
Rural urban	Formal	2.8	85.5	14.5
	Informal	4.0	96.9	3.1
Total		6.8		
Rural	Formal	2.2	83.5	16.5
	Informal	4.0	96.7	3.3
Total		6.2		
Urban	Formal	4.4	88.0	12.0
	informal	38	973	27
Total		82		

Source: Report on Education, Skill Development and Labour Force (2013-14), Volume III, Government of India Ministry of Labour & Employment Labour Bureau Chandigarh

In 2013-2014 period, comparing the formal training labour outcomes at rural urban level, we find that the percentage of employment is higher in urban areas than rural areas. On comparison of informal training, nearly same level of employment at rural urban levels. It can be concluded the formal training is urban areas yielded better outcomes.

Nature of employment

Nature of employment can be studied in terms of self-employment, salaried, contractorization & casualization. The first two forms of employment have been considered as good indicator[1]. However, in Indian society education is not preferred to get self-employment. Table 1.7 below shows the nature of employment among those received /receiving vocational training. In rural areas the percentage of self-employment was high among vocational graduates. However, in urban areas level of salaried employment was higher. At all India level self-employment was higher followed by salaried employment. The share of contract workers was least among all categories. The nature of employment is satisfactory among vocational graduates.

Table 7: Distribution of persons aged 15 years & above who received /receiving vocational training by activities based on Usual Principal Status (ps) approach (in %)

	Self Employed	Wage/salaried Employee	Contract Worker	Casual Worker
Rural + Urban	45.2	30.7	5.8	18.3
Rural	48.3	24.4	6.4	20.9
Urban	39.2	43.0	4.7	13.2

Source: Report on Education, Skill Development and Labour Force (2013-14), Volume III, Government of India Ministry of Labour & Employment Labour Bureau Chandigarh

[1] Agarwal Tushar (2012), Vocational Educationand Training In India: Challenges,Status And Labour Outcomes, Journal Of Vocational Education & Training 64:4,453-474.

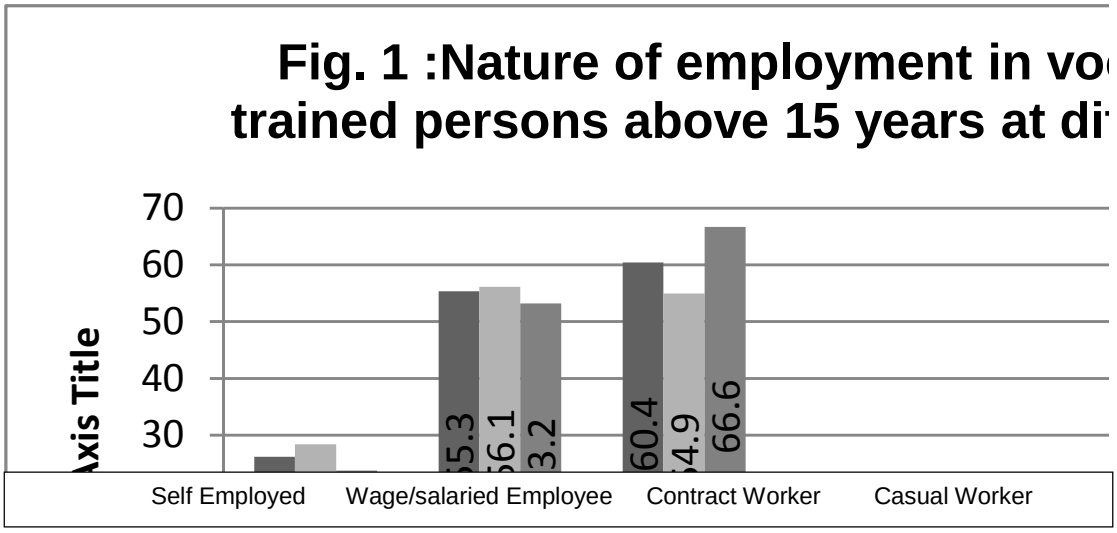

Table below shows that nature of employment of formal and informally trained workers in rural and urban areas. Increase in casualization and contractual labour in the economy is not a favorable sign in the economic scenario. In rural areas, among self-employed persons who received some sort of vocational training, more were informally trained. Among the salaried proportion, formally trained were greater, which is good indication from the point of social security. Also, that the recipients do not want to pursue vocational education in order to be self-employed.

In urban areas, among the self-employed persons who received some sort of vocational training, most of them were informally trained. Among the salaried proportion, most of them were formally trained. At all India level, among the persons self-employed persons who received vocational training, most of them were informally trained. Among salaried proportion, formally trained proportion was higher. Comparing the overall nature of employment of formally trained, more persons were engaged in regular and salaried activities, which were followed by self-employment activities. Informally trained persons were more engaged in self-employment activities. Figure also shows that informally trained proportion is more engaged in casual activities. In rural areas, regular and salaried, among the formally trained employed persons are more than 50 per cent in wage/salaried category followed by self-employed category. In the case of informally trained employed persons more than half were reported in self-employed category followed by casual workers. The rural-urban wise estimated percentages are exhibited in Figure below. This is good nature of employment percentage in increase in regular /salaried in formally trained workers. Thus, we draw a conclusion that formal training has been employing in regular and salaried activities which is good indication from social and economic point of view.

Wage among the Vocational Graduates by Educational level

Table 8 : Average daily wages by educational level and VET status in India for 15-29 years (in rupees at current prices) 2011-2012

	Iliterate		Completed primary		Completed middle		Completed secondary		Completed graduation	
	Casual	regular	Casual	regular	Casual	regular	Casual	regular	Casual	regular
VET receiving formal	NA	NA	144	296	144	299	137	302	82	322
VET received formal	200	270	218	374	221	377	225	394	150	489
VET received non- formal	129	147	157	202	162	214	158	240	126	403
Not receiving VET	126	123	139	282	142	299	145	343	164	484

Note: Subsequent categories of educational level, do not include preceding levels
Source: national sample survey (68th round), 2011-2012

Those who only received VET, without any general education, received higher wages in comparison to those who did not undertake training. At all levels, vocationally trained person got more wages than those who did not undertook vocational training. Thus, it is evident that vocational training essential for better wages and employment.

Impact of Skill Mismatch

Skills mismatch is either undereducation or overeducation, not matching the skills required in labour market. According to survey conducted in nation, both small and large firms face skill deficiencies. Most of firms site that there exists a missing link between theory and practice in the present education curriculum. Presently in India about 90% of the engineering lack in programming skills. Lack of employability is also found in various other courses such as MBA, BA etc courses. Also, the employment among the graduates is also high. This unemployability exists with firms facing skill deficiencies and they do find workers with the required skills. Today in India youth unemployment is high especially among the urban youth. Even among graduates with. At the All India level, 58.3 per cent of unemployed graduates and 62.4 per cent of unemployed post graduates cited non- availability of jobs matching with education/skill and experience as the main reason for unemployment.

Table 9: Unemployed persons having graduate /post graduate level qualification aged 15 years and above by reasons of unemployment (All India in %)

	Graduate			Post graduate		
Reasons	**Rural**	**Urban**	**Rural Urban**	**Rural**	**Urban**	**Rural Urban**
Non- availability of jobs matching with education/skill/experience	55.9	64.0	58.3	58.5	68.7	62.7

Source: Report on Fifth Annual Employment - Unemployment Survey (2015-16) Volume I, Government Of India Ministry Of Labour & Employment, Labour Bureau Chandigarh.

Skills mismatch is high in India. As stated earlier, about 55% of graduates and post graduates don not find employment due to skill mismatch. Also, that unemployment among the higher levels of education is higher than the rest of levels. Unemployment among those highly educated is major question about the standard of education in the nation.

According to EY report (2012) about 48 % of the employers find difficulty in filling jobs. This is high in comparison to the other nations. This figure is higher than China (23%). This is consistent with report on employers facing difficulty buy various agencies as World Bank, OECD. this is serious concern as on one hand graduates are not finding employment and on the other hand employers are not finding suitable workers. This is highly devastating situation in present India, if not tackled properly this can lead to high inequalities in the economy and sections of the society. also, huge unrest.

Skills mismatch in India not just about inadequate education, but it is also about the education systems' failure to keep up with the evolving needs of the labor market and specific skills needs. Industry level participation have been low in skill development in India, the skill mismatch in the economy can widen if not tackled properly. Thus, skill mismatch may be problem in future as well. Thus, it is essential to unify and well coordinate all the stakeholders. Use of technology is the system will make it easy to unify the system. In India there, 90 % of the employment is informal which means unorganized. To well coordinate the entire system is mammoth's task and cannot be done immediately. In this digital world, India has proceeded in its digital index, but its reach of internet is approximately 40% in the urban areas and much lower in rural areas[1]. Only 14 percent of the households have accessibility to internet in present scenario[2]. Without the skill development of the human resources even the other government initiatives such as Make In India, digital India, could be in vain because without proper literacy it is not possible to use the latest technology and machinery. In banking sector today, few jobs which were existing in past today exist today. They have become redundant. In few other service sectors, low skilled jobs are at risk due to development of automation. Technology advancement is taking place round the world but it in out hand to make use of it for our resources. Today when all nations of the world are getting access to each other markets, only the industries who are cost efficient survive. Thus, in order to maintain the competitiveness, it is essential to develop human capital as only well skilled human capital can attract foreign direct investment. Investment in technology and otherwise is essential to earn profits in future.

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1 NSS round 71st, Social Consumption: Education in India

2 NSS round 71st, Social Consumption: Education in India

Skills mismatch, is deteriorating at the all levels in the economy. At the national level unemployment and inequalities widen. at the firm or enterprise level, unavailability of skilled workforce may make them loose competitiveness in the scenario. The firms if fill them with less skilled labour or more skilled, then they do bear costs. Unemployment at individual level is more devastating. There is loss in productivity at the firm level. Also, there is loss of resources which were used in skilling the person in the wrong manner which yields no returns.

Training Needs across Sectors

Most of need to train vocationally is in sectors of construction, automotives, auto component &capital goods, gems & jewellery, food processing, road transport and highways, furniture &fitting, electronics, telecom and beauty wellness & retail sector. However vocational courses chosen so far are not in alignment with the labour demand in these sectors. These sectors almost require almost 80% training demands(above 800 lakh). Labour force should be directed towards training in courses related to these sectors, so that the economy does not faces of skill mismatch & labour demands of industries of these sectors are fulfilled when more productive labour is supplied in these sectors. These sectors require 1268 lakh persons. According to the annual report of Ministry of skill development2015-2016, most ministers and departments have not been able to accomplish the targets assigned to them. The ministers together have achieved target of approximate 43%. Target of training 500 million by 2022 may remain unfulfilled due to slow pace.[1]

Suggestion and Policy Recommendations

- It is well established fact that scenario of formal vocational education and training has been dismal. More pursued form of training is informal method. There is requirement of greater coordination among multiple stakeholder to develop more unified and coordinated formal vocational education & training.
- It is needed to focus on women's vocational education with special attention, so that their potential is utilised in economic development. As per research it is not possible to stand as developed nation without the participation of women.
- Although the youth have shown increased participation in vocational education and training, the participation level is still modest. At the rural level, there is very little participation in vocational education and training. The vocational education has a very long way ahead in developing as the rural requirement.
- Another worrisome thing is their perception that VET is not useful in getting employment. Perception as the second-class education can be curbed with the changes in terminology upgradation related to the vocational education and training. More participation was observed in "skill development" programme rather than "vocational education and training "programme was told. This is more of educational bias towards vocational education and training.
- 30% of youth are nor in education and neither in training. Thus, developing modular employable skills according to their needs will be crucial to reorient them towards skill development.
- It is essential that there is vocational education at secondary education. Thus,to divert them, need of students should be taken into consideration when developing vocational courses at the secondary level.
- The progress of skill development initiatives has been very modest. It is essential to speed up reforms to reap the demographic dividend.
- Across sectors,vocational courses in agricultural sector will be crucial, as they will be essential to boost productivity in agriculture sector and divert them towards other sectors of the economy.
- Vocational training across many of the states has been minimal. There is need for increased participation at state level. Centre alone cannot be game changer for the Skill Development Mission.
- The employment percentage in major ITI's as per International labour report has been very low. The institutes of vocational education of training needs to urgently revived. There are many short comings in the ITI's/ITC's.

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[1] Annual Report (2015-2016), Ministry of Skill Development and Entrepreneurship, Government Of India

References

~ Agrawal Tushar & Agrawal Ankush 2017.Vocational education and training in India: a labour market perspective. Journal of Vocational Education & Training .Vol. 69, Issue. 2,2017

~ Ahmed , Tutan. 2016. Labour market outcome for formal vocational education and training in India: Safety net and beyond.IIMB Management Review. Volume 28, Issue 2, June 2016, Pages 98-110.

~ Annual report 2015-2016. Ministry of Skill Development and Entrepreneurship, Government of India.

~ Asian development bank.2015. Challenges and opportunities for skills development in Asia: changing supply, demand and mismatches.

~ Banerjee, T. (2016). Impacts of Vocational Education and Training on Employment and Wages in Indian Manufacturing Industries– Variation across Social Groups: Empirical Evidences from 68th Round NSSO Data Tanima Banerjee. SARNET Working Paper No.7.

~ Ernest & Young and FICCI .2013. Higher Education in India: Vision 2030.

~ FICCI survey on labour / skill shortage for industry.

~ Gambin Lynn, Exploring the Links Between Skills and Productivity: Final Report by Institute of Employment and Research, University of Warwick, Covetry. Pg 4.

~ Government of India. 2015. “National Skill Development Policy.” Government of India.

~ Government of India. 2012. Status of Education and Vocational Training in India. Report No. 566. NSS. Ministry of statistics and programme implementation, Government of India.

~ Greener skills and jobs: Highlights, OECD.

~ Mckinsey&Company.2012. The World at Work: Jobs Pay and Skills for 3.5 Billion People.

~ National Policy on Education,1986, Government of India, Pg 16.

~ OECD, WTO, World bank group. 2014.Global Value Chains: Challenges, Opportunities, And Implications for Policy.

~ Pilz, Mattiaz (2016). India: Preparation for the World of Work: Education System and School to work transition springer VS.

~ Rashtriya Tarun .2008. Vocational Education, APH publication, New delhi.

~ Tara, Nayana.Kumar Sanath and Pilz Matthiaz .2016. Quality of VET in India: The case of Industial Training Institutes.

~ Tognatta, Namrata, "Technical and Vocational Education and Training in India - A Study of Choice and Returns" (2014). Publicly Accessible Penn Dissertations. 1472. http://repository.upenn.edu/edissertations/1472

~ Wheebox and CII. 2016. India skills report.

~ Wheebox and CII. 2017. India skills report.

~ Working Group on Creating Employment in 12th Plan, Government of India.

~ World Bank. 2008. Skill Development in India: The Vocational Education and Training System. Washington, DC: Human Development Sector, The World Bank.

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