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Skills Development Policy and Jobs in India: Shortcomings and Way Forward

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- *India seems to be facing multiple challenges in the skilling space: low employability of training programs, slower employment generation, low level of skilled workforce and overall quality of training infrastructure.*
- *There has been duplication of efforts at enhancing capacity for new skills over the years with more than 21 ministries, State governments, and other agencies running skills development programs with no commonly accepted standards and norms. These challenges become more prominent for a nation with more than 65% of the population below 35 years of age.*
- *The first skills development policy of 2009 institutionalized the skills training delivery in India by establishing a three-tier structure (National Skills Development Corporation was made responsible for operationalizing the efforts) and setting-up an ambitious target of training 500 million people by 2022.*
- *However, the 2009 policy seems to have achieved limited success regarding scale, but it failed to address the critical challenges in terms of quality. The notable problems include:*

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lower industry engagement, information gaps, lack of skilled trainers, funding, and absence of any accreditation and standardization mechanism among others.

- *With the advent of the new government in 2014, a separate Ministry of Skills Development and Entrepreneurship was established with the mandate of bringing all the skilling initiatives in the country under one umbrella to bring synergies. Subsequently, the National Skills Development and Entrepreneurship Policy 2015 was launched, aimed at addressing multiple challenges holding back the progress in the skilling space.*
- *Some of the key strategic initiatives under the new policy include: certification of skills for informal workforce, financial incentives for industry-linked skills training, standardization in training outcomes, better mutual recognition of education between vocational and formal systems, industry exposure to trainers and divergence of all skilling initiatives under one umbrella among others.*
- *The study finds that the new skills development and entrepreneurship policy seem to be well placed to address existing challenges in the skilling space based on encouraging initial signs, progress, and change in environment. However, given that detailed implementation and outcomes of all the proposed initiatives are yet to come out, the overall outlook remains cautiously optimistic.*

Introduction

Skills acquisition is a crucial determinant of job creation and plays a proactive role in pulling people out of poverty. With complex economic cycles and business requirements, jobs have increasingly become skills intensive and require technical know-how to pursue them. There are many definitions of skills. In the context of this paper, "skills" are defined as the set of competencies or expertise required to complete the desired job in a time-effective manner in a professional setting.

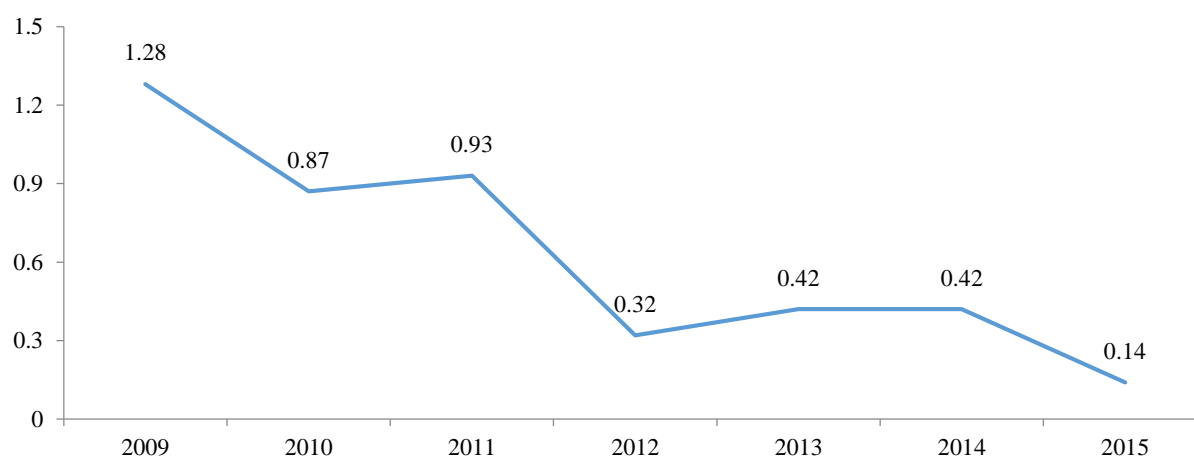
According to Census 2011, more than 65% of the population is below the age of 35. Nearly, 62% of the Indian population is in the working age bracket of 15-59 years.² The large number of young population gives an enormous demographic advantage to India, but only for a limited time frame

² 2011 Census data, Office of the Registrar General and Census Commissioner, Government of India.

until 2040. Between now and 2040, there is a huge window of opportunity for India to sustain long-term economic growth based on a skilled workforce. Also, to meet its workforce needs, India now is also considering to supply its labour surplus to many developed nations which are experiencing a shrink in the young population or workforce. The estimated average age of Indians by 2020 would be only 29 years as compared to Japan (47 years), Europe (46 years) and USA (40 years).³

India, apart from skilling, also seems to be facing a challenge of slower jobs creation. It is estimated that nearly 12 million people get added to the workforce each year.⁴ It equates to roughly 60 million new additions in the workforce between 2011 and 2015. The labour bureau data⁵ shows that only 2.2 million jobs had been created between 2011 and 2015 in the eight most employment extensive sectors in India (textiles, leather, automobile, gems and jewellery, transport, IT, metals and handloom/ power loom). The most worrying part of the story is that annual job creation in these sectors has grossly declined from 1.3 million in 2009 to 0.14 million in 2015 (Figure 1).

Figure 1: Employment creation in eight selected sectors (million), 2009-15⁴



³ National Policy for Skills Development and Entrepreneurship 2015, Government of India.

⁴ Annual update 2015, National Skills Development Corporation, Government of India.

⁵ Quarterly reports on change in employment in selected sectors, 2011-2015, Ministry of Labour and Employment, Government of India.

Out of an estimated 500 million workforce in India in 2015, nearly 93% are employed in the unorganized sector that does not receive any formal skills training.⁶ There is also a structural shift in the jobs composition with more number of people moving from farm to non-farm sector. The percentage of the workforce employed in the primary sector had decreased by more than 8% in a short period of four years between 2008 and 2012. However, this decrement is supplemented by an increment in the percentage of the workforce employed in the secondary (>5%) and tertiary (>2%) sectors (Table 1).

Table 1: *Workforce composition of India by sector of employment*⁷

	2007-08	2011-12
Primary sector	57.3%	48.9%
Secondary sector	18.7%	24.3%
Tertiary sector	24.0%	26.8%

By taking into account the case of the large informal economy, sluggish job creation, and structural shift, it is needless to say skilling becomes a paramount institutional mechanism to cater to the current employment trends and needs. Skill development tends to have a multidimensional effect on the labour market, ranging from job creation, increased productivity and structural shift to the organized sector.

The paper argues that it is imperative to study skilling from the perspective of an important institution in fostering job creation. Given its crucial importance, skills development has generated much debate and interest among policymakers and subsequent governments in India. It is less likely that industry alone will invest in the skills development of people who belong to economically weaker sections and further provide them employment without any attractive incentive or employ unskilled/inadequately skilled people. It is, therefore, imperative for the

⁶ Ministry of Skills Development and Entrepreneurship: Key Achievements and success stories in 2015, Press information bureau, December 2015.

⁷ Employment and unemployment situation in India, various rounds, Ministry of Statistics and Program Implementation, Government of India.

government to play a serious and overarching role in the skills development of people and develop an incentive mechanism for the private sector to invest in skills development.

Methodology and Framework

Skills can be divided into four broad levels in line with other studies⁸ as follows:

Level 1 (Semi-skilled): *“Skills that require minimal education and can be acquired by undertaking modular short-term courses or training. It also includes on the job training that primarily remains informal in nature.”*

Level 2 (Skilled): *“Skills that can be acquired through vocational training programs and other formal certification training programs. It includes programs that are unique to a particular type of jobs such as operating a machine, managing operations or supervision.”*

Level 3 (Highly Skilled): *“Skills that can be acquired by undertaking diploma or degree programs such as graduate or post-graduate studies for some years. These are mainly done to gain high technical or commercial competence.”*

Level 4 (Highly skilled with specialization): *“Skills that involve research and design and are acquired from the doctoral program or other highly specialized programs and extensive work experience.”*

The paper focuses on only first two levels and looks skilling from the perspective of vocational training and do not include higher education. The inclusion of only vocational education for assessing the skills development also helps in bringing the desired level of focus in the study.

The study adopted policy analysis to study skilling institutional mechanism in two phases: Phase 1 (2009-2015) and Phase 2 (2015 onwards), while discussing its key achievements, challenges, and shortcomings. The detailed study and policy analysis of Phase 1 greatly helped in understanding the key challenges and success factors for skills development in India. The identified key challenges and factors are then analysed from the prism of new skills development and entrepreneurship policy launched in 2015. This analysis greatly helped in understanding

⁸ Skills development in India: Challenges and opportunities, Athena Infonomics, March 2013.

whether lessons learned from failures during the first phase of national skills development policy have been duly incorporated or not while formulating the new policy.

The paper is further divided into six sections. The first section discusses the current skilling and educational status in India, the second one presents the existing skilling infrastructure in India, the third section discusses the national skills development 2009, the fourth section presents the identified challenges in skilling space, the fifth section discusses the new skills development and entrepreneurship policy 2015 in light of identified problems, and the last section concludes the paper with some policy recommendations.

Skilling and Educational Status of Labour Workforce in India

According to the fourth annual employment-unemployment survey, only 6.8% people aged 15 years and above have received/are receiving vocational training in India in 2014. It is important to note that this 6.8% include both formal and informal vocational training. It is estimated that only 2.8% people aged 15 years and above have received/are receiving any formal vocational training which points towards the low attainment of skills in the Indian workforce. The rest 4% have received/are receiving informal vocational training.⁹ The definition of formal and informal vocational training adapted from annual employment-unemployment survey is given below:

Formal vocational training: “It is defined as structured training acquired through educational or training institutions that led to the attainment of recognized certificate or diploma.”

Informal vocational training: “It is defined as unstructured training or knowledge or expertise acquired from family or ancestors. It also includes self-learning and learning on the job through exposure to various tasks he/she may be performing.”

Regarding rural-urban divide, the attainment of vocational training is estimated to be 6.2% in rural areas and 8.2% in urban areas. The urban areas performed relatively well in formal vocational training as well with 4.4% people aged 15 years and above receiving formal vocational training as compared to only 2.2% in rural areas. It may be partly because of the reason that there are more

⁹ Education, skill development and labor force Volume 3, Labor Bureau, Ministry of Labour and Employment, Government of India, 2013-14.

training facilities for formal vocational training in urban areas than rural areas. Regarding informal vocational training, both urban and rural areas remain on par with each other with 4% people aged 15 years and above receiving informal vocational training in urban areas as compared to 3.8% in rural areas. It is explained by the fact that informal vocational training mainly covers job training which can be easily imparted both in rural and urban areas.

It is worthwhile to note that about 39% females have not joined the labour force after receiving vocational training, reflecting the enormous unutilized potential within the small skilled labour force in India. It is surprising to note that the unemployment rate among graduates and post-graduates in India is estimated to be 14% and 12% respectively in 2014. On the contrary, the unemployment rate among people who are illiterate is below 2% in 2014. It may be due to a large percentage of the workforce (~93%) being employed in the informal sector which can quickly absorb illiterate people to do a less-productive and low-wage job.

Another surprising fact that emerged from the survey is that the unemployment rate among people who have received informal vocational training (3.1%) is far lower than the unemployment rate among people receiving formal vocational training (14.5%). It may partly be because the majority of people receiving informal vocational training (55%) are self-employed, and only 15% are salaried employees. The rest of them are casual workers. On the contrary, nearly 60% of people undertaking formal vocational training are salaried employees and only 26% are in the self-employment category. It partly reflects that there could be lack of connection between the formal vocational training and the employment market needs.

The labour force participation rate in India is estimated to be 52.5% in 2014. This points towards the hypothesis that not everyone who is skilled or received vocational training is part of the labour force. As per estimates of Ministry of Skills Development and Entrepreneurship, only 2.3% of the existing workforce in India has received any formal skills training as compared to South Korea (96%), Japan (80%), Germany (75%), UK (68%) and USA (52%).¹⁰ The exact number of skilled workforce in India is debatable and a bit unclear. In another estimate by the Ministry of Skills

¹⁰ National skills development mission – A framework for implementation, Ministry of Skills Development and Entrepreneurship, Government of India, 2015.

Development and Entrepreneurship, the skilled workforce is computed as 4.7% of the total workforce in 2015, which seems to be highly optimistic.¹¹

India faces the dual challenge of acute shortage of trained or skilled workforce on the one hand and higher unemployment among educated youth who have completed their graduate or post-graduate studies on the other.

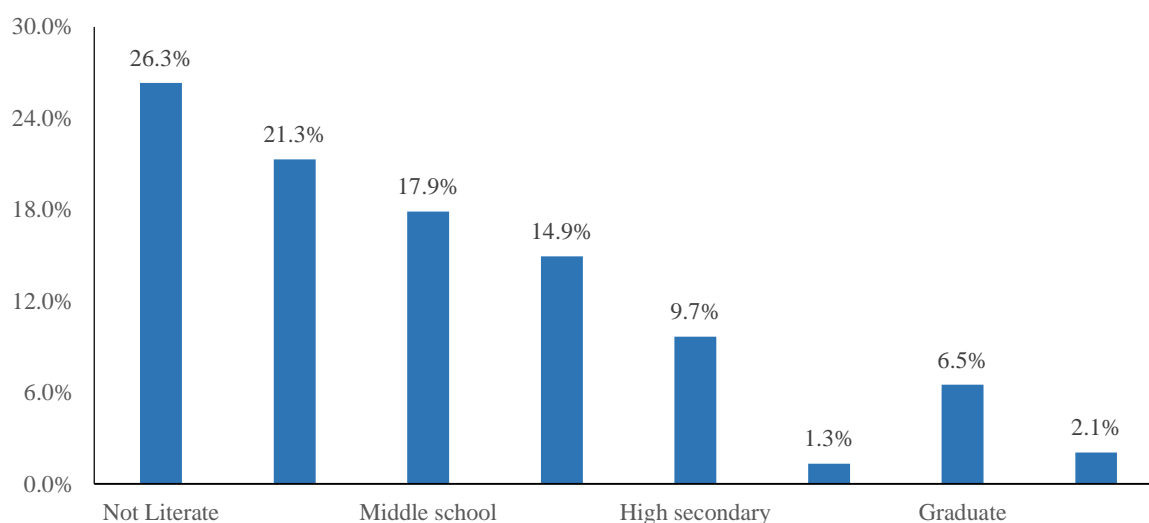
More than 47% of the working-age population (15-59 years) in India is either illiterate or studied until primary school as shown in Figure 2. Less than 10% of the working age people have either studied diploma/certificate courses or have completed their graduate/post-graduate studies. The number of post-graduates in the working-age population is at a dismal 2%¹². The labour force of India is estimated to be ~480 million in 2015 and skilling such a large number of people to enhance their employability is a formidable task. There seems to be an urgent need to increase the enrolment ratios in both secondary and higher secondary education. Apart from that, up-skilling of people who are illiterate or have only received a maximum of primary education demands consistent and focused interventions both from the government and the private sector.

From the demand-side, there is an estimated need for approximately 120 million skilled workforce between 2014 and 2022 in 24 priority sector as per the recent calculations of Ministry of Skills Development and Entrepreneurship. The biggest requirement seems to be coming from real estate and construction, retail and logistics industry. The detailed breakdown of the human resource requirement by sector is given in Appendix 8.

¹¹ National Policy for Skills Development and Entrepreneurship, Ministry of Skills Development and Entrepreneurship, Government of India, 2015.

¹² Employment and unemployment situation in India, NSS 68th round, 2011-12, Ministry of Statistics and Program Implementation, Government of India, January 2014.

Figure 2: Educational status of working population (15-59 years), 2011-12⁵



State of Skilling Infrastructure in India

The history of skills development in India goes long back to 1950 when the first set of industrial training institutes (ITIs) were created by the government to train craftsmen. Since then, skilling has come a long way, and there are an estimated 9,680 privately operated ITIs and 2,284 government owned ITIs as of September 2014. ITIs, today forms the backbone of vocational education system in India with a training capacity of 1.7 million annually (as of September 2014).¹³ During the financial year 2015-16, 1,141 new ITIs and 173,000 sets have also been added.

The National council of vocational training (NCVT) is responsible for setting up the curriculum and formulating the policies, standards, and certificates in the space of vocational education. Both the ITIs and the NCVT come under the purview of the newly formed Ministry of Skills Development and Entrepreneurship since 2015. Before that, they both were part of the Directorate General of Education and training under the Ministry of Labour and Employment. Polytechnic institutes also impart advanced technical vocational training in addition to ITIs. There are an estimated 3,694 polytechnics in India in 2014-15 with an annual enrolment of ~1.4 million. The numbers and skilling capacity of ITIs are unevenly distributed among different regions as shown in the table below.

¹³ Directorate General of employment and training, Ministry of Skills Development and Entrepreneurship website.

Table 2: Distribution and annual seating capacity of ITIs – by region (September 2014)¹²

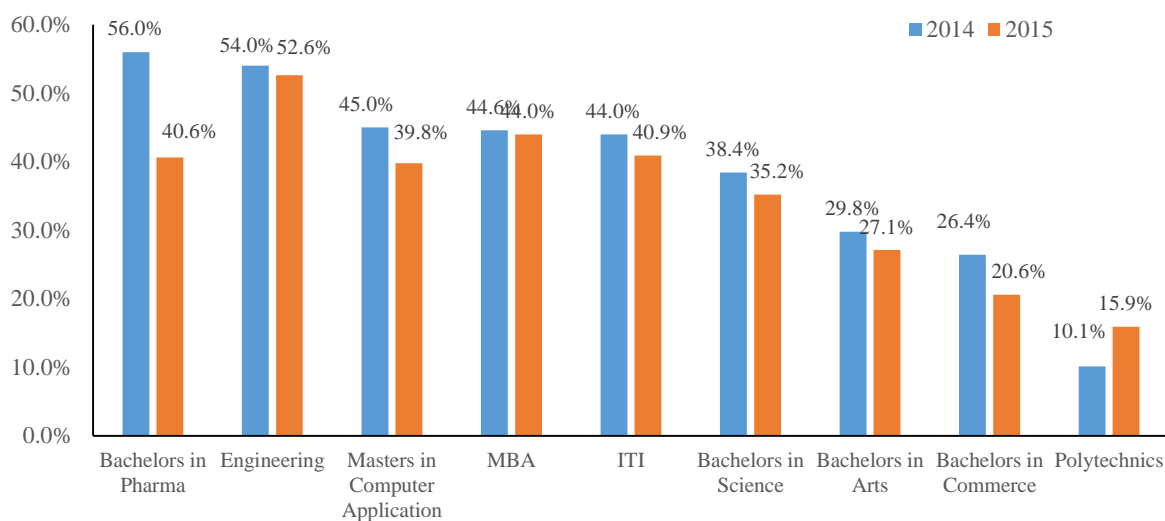
	Number of Government ITIs	Number of private ITIs	Total annual seating capacity
Northern region	813	3,757	589,665
Southern region	437	3,056	448,754
Eastern region	209	1,569	308,551
Western region	825	1,298	345,876
Total	2,284	9,680	1,692,836

The government of India had initiated the up gradation of ITIs in 2005-06 while aiming to convert 500 of them to centres of excellence. In 2007-08, the government elevated the plan and announced to upgrade ~1,400 ITIs into the centre of excellences in particular areas under public-private partnership mode¹². The key objective of the up gradation scheme was to improve the status of vocational education and make it more aligned with the industry requirements.

Despite given the massive investment from the government, there seems to be a little improvement in the performance and quality of education imparted at ITIs and polytechnics. There are serious employability challenges about both of these institutions and especially with polytechnics. The figure below shows that less than 41% of the students passing out from ITIs are considered employable. There is a decline of ~5% in the employability of ITI's candidates between 2014 and 2015. The employability of polytechnics students is the lowest among all the streams and is below 16% for both 2014 and 2015¹⁴.

¹⁴ India Skills Report 2016, Wheelbox, 2016.

Figure 3: Employability by programs, 2014 & 2015¹³



The total skilling capacity of India is estimated to be 3.1 million in 2009¹⁵. The total skilling capacity includes ITIs, polytechnics, skills training programs run by ministries and other vocational schools. It was increased to 4.3 million at the start of 12th five-year plan (2012-17) in 2012⁷. As per the latest estimates of the Ministry of Skills Development and Entrepreneurship, the annual skilling capacity of India was estimated to be 7 million in 2014.

It is estimated that 104 million people will enter the workforce between 2015 and 2022 which translates to ~15 million people annually¹⁰. The skilling capacity is short by at least 50% to train the people entering the workforce each year. Considering that the majority stakeholders in vocational training are ITIs and polytechnics, the annual skilling demand (15 million) is roughly five times of their annual skilling capacity (3.2 million, only ITIs and polytechnics). It infers that there is still a greater need to increase the skilling capacity to meet the rising demand without compromising the quality.

¹⁵ National Skills Development Policy document 2009, Government of India.

National Skills Development Policy, 2009

The first national policy on skills development was formulated in 2009, aiming to reap the benefits of the demographic dividend through skilling the workforce. The policy sets the target of training 500 million people by 2022. The policy adopted a three-tier governance structure: Prime Minister Council on Skills Development, National Skill Development Coordination Board, and National Skills Development Corporation. The three-tier structure was formed to promote a more proactive and engaged role for state governments and the private sector in the skills development space via the coordination mechanism. The three-tier governance structure has not been changed barring the members and functionaries in different entities as of 2016.

The first tier, the Prime Minister Council on Skills Development, formulates the policy and overall direction in the form of core principles. The council also spells out the vision of training 500 million people by 2022. The council consists of Ministers of human resource development, finance, industry, rural development and labour and employment among others. It also has other experts in the area of skills development as its members.

The second tier, National Skills Development Coordination Board, carries and coordinates the skill development efforts of various ministries and state governments. It is headed by the Deputy Chairman of the erstwhile Planning Commission (currently NITI Aayog). Secretaries (senior-most bureaucrats) in the Ministries of human resource development, finance, industry, rural development and labour and employment, among others, are the members of the board. It also has three experts in the area of skills development as its members, along with representation from four state governments.

The third tier, National Skills Development Corporation (NSDC), is the implementation agency of the skills development initiative and had been set up as the private sector arm of government. It was also established in 2009 to promote industry participation in skills development via partnership funding models. NSDC is a not-for-profit company formed under the public-private partnership mode and jointly owned jointly by the government (49% shareholding) and private sector (51% shareholding). The government has made an initial corpus funding of INR 100 billion.

Until 2016, NSDC has been able to form a partnership with 267 training providers to offer short term skilling courses via 4,381 training centres.¹⁶ It has also formed 40 Sector Skills Council to understand the skilling needs in each sector and promote need-based training programs in line with industry expectations. NSDC funds the skills development initiatives via loans or grants through its National Skill Development Fund. The fund pools in money from the government, private sector, donor organizations and other financial institutions.

Out of the target of training 500 million people by 2022, 150 million alone have to be trained by NSDC itself through its private sector partnerships. The huge impetus given by the government to NSDC and skills development seems to have helped in making some apparent shift, but has been unable to make any remarkable impact. Since its inception, NSDC has trained more than 5 million people, out of which only 44.4% have been placed so far post completion of training.¹⁷

It is observed that in the initial years, when the skilling number was relatively small, NSDC had experienced more success in placing students into jobs. However, starting from 2012-13, when the skilling numbers grew exponentially, the success in placing students into jobs also became less than 50% as shown in Table 3. This raises an apprehension about the efficacy of the training provided through NDSC partners. It may also be due to a lesser number of jobs in the market.

Table 3: Number of candidates skilled/training and placed by NSDC, 2010-16¹⁶

	<i>Number of candidates skilled/ trained</i>	<i>Number of candidates placed</i>	<i>Success rate in placing candidates into jobs</i>
<i>2010-11</i>	<i>20,484</i>	<i>14,399</i>	<i>70.3%</i>
<i>2011-12</i>	<i>181,691</i>	<i>144,238</i>	<i>79.4%</i>
<i>2012-13</i>	<i>402,506</i>	<i>216,741</i>	<i>53.8%</i>
<i>2013-14</i>	<i>1,349,619</i>	<i>646,394</i>	<i>47.9%</i>
<i>2014-15</i>	<i>3,442,422</i>	<i>1,226,639</i>	<i>35.6%</i>
<i>2015-16 (March 6, 2016)</i>	<i>2,780,000</i>	<i>1,2000,00</i>	<i>43.2%</i>
<i>Total</i>	<i>8,176,722</i>	<i>3,448,411</i>	<i>42.2%</i>

¹⁶ Factsheet, National Skills Development Corporation (accessed 18 November, 2016).

¹⁷ Company profile, National Skills Development Corporation, July 2015.

The skilling target for NSDC has been increased from 1 million in 2013-14, by more than three times, to 3.3 million in 2014-15. The target is doubled to 6.1 million for 2015-16¹⁵. It raises an alarm whether the NSDC would be able to improve the quality of its training and number of placements by increasing new training capacity additions each year.

Considering the best case scenario, NSDC might be able to achieve the benchmark of training 10-11 million candidates by the end of the calendar year 2016. While looking at the scale and speed till date, it is not very clear how NSDC will be able to train another 138.3 million people in the next six years. It is estimated that NSDC has a peak training capacity of ~18 million annually¹⁶. Even if we assume that NSDC will operate at its peak capacity, it will still be short of meeting its 2022 target by 30 million. It is important to note that the quality of the training capacity of 18 million is also highly questionable if we take into the account the current placement statistics of NSDC as shown in the table above.

Out of the target to train 500 million people by 2022, 100 million needs to be trained by different ministries, which also include ITIs and polytechnics. It is important to note that there are 21 central ministries/departments that run over 70 skills development programs, leading to duplication and inconsistent effort⁵.

In a short span of five years (2009-14), the annual skilling capacity of India has been increased by 125% (3.1 million to 7 million). Combining it with employability statistics of ITIs and polytechnics indicates that the national skills development policy 2009 does not have any desired impact on improving the skilling quality in India. It may have helped in increasing the skilling capacity though.

Challenges in the Skills development Space in India

In light of the implementation of the National Skills Development Policy 2009 and its limited success, few serious challenges have been identified. These key challenges include:

1. Branding and Information Gaps

The National Skills Development Policy remains focused on increasing the skilling capacity through various means. However, it does not tend to give much importance to the dissemination of rights and targeted set of information to candidates looking to undertake vocational training. Choosing among a large number of programs and centres is not easy for semi-literate candidates. It often resulted in either enrolling in the wrong course or dropping the idea of undertaking vocational education altogether. Candidates tend to search for information and guidance regarding the post-completion opportunities and career path in a particular stream, which however is completely missing. The NCVT, which may have been utilized for this purpose, remained engaged primarily in setting curriculum and directives only. The absence of any robust information mechanism also limits the capacity of the industry to plan their human resource requirement and future availability of resources.

Skills education is still not able to gain wider acceptance as a fruitful alternative to formal education in India. The candidates who pursue skills education are often seen as cases wherein they are denied entry into formal education. This is largely because of lack of knowledge about benefits and job opportunities, that are ultimately leading to low brand value perception about skills education.

2. Industry Engagement and Poor Quality

The low employability of the ITI and polytechnic candidates, as discussed in the earlier section, is supposedly due to lower engagement and participation of industry in the overall functioning of these vocational training centres. The courses and programs taught at ITIs are not aligned with the current industry requirements and hence there has been a determined resistance among companies either to hire the candidates or to offer them the right compensation. The curriculum or training provided by institutes is outdated and has almost little/no relevance to the current skills requirement of the industry. The lack of adequate and upgraded training infrastructure and inflexibility in training curriculum further accentuates the problem.

With the formation of sector skills councils and consistent efforts from the government, companies have started showing some interest in upgradation of ITIs. However, it still seems to be in the nascent stage, and there are challenges around autonomy in the management of ITIs. Moreover, many companies, especially in the micro, small and medium scale enterprises sector, treat the skilled and unskilled workers at par with each other, which leaves very little incentive for people to undertake formal skills training.

3. Funding and Shortage of Trainers

The financial support from the government is mainly restricted to government ITIs which roughly cover one-third of the training capacity of the ITIs. Once the government funding is started, the institutions continue to receive funding in subsequent years regardless of their performance or success rate in placing students into jobs. On the contrary, privately owned/operated ITIs suffer from the limitation of charging low fees as students who undertake vocational training come from economically weaker backgrounds. Another reason for reluctance among students to pay the higher fee is little awareness and perceived benefit from vocational education. This significantly hampers the capability of private ITIs to invest in quality and machine upgradation used for training or hiring skilled trainers. It is estimated that there is a shortage of 100,000 qualified trainers in skilling space (ITIs, apprenticeships/ short-term courses) in 2016.¹⁸

Apart from just numbers, the quality of trainers is in itself questionable at times. The trainers lack industry exposure and acquaintance with the latest technology, machinery or techniques currently in use. The faculty-industry interaction has been dismal with no opportunities to execute joint projects or work together on any assignments. In the current mechanism, training providers do not have sufficient incentive to invest in quality upgradation or improve the efficacy of the program/training offered.

On the other hand, there are many grants based free training programs for which students need not pay any fee. But these programs may not be very promising due to associated low employability

¹⁸ Shortage of trainers, Business Standard, 24 February, 2016.

and quality concerns. Additionally, as these are free programs, students also attribute low or no value to them.

4. Lack of Standardization and Accreditation

There has been no standardization in course content and curriculum among numerous courses and skilling programs offered by ITIs and other institutes. Both industry and students do not know how to compare different courses, institutes or streams. There is multiplicity in assessment and certification due to many governments and private players operating in this segment. Moreover, the companies do not understand what kind of skills-set they should expect from candidates coming out of different institutions that ultimately lead to low or no recognition of certificates.

The Sectors Skills Council and the formation of the National Skills Qualifications Framework¹⁹ in 2013 to standardize the vocational training programs is a significant step in this direction. However, it is still in its nascent stage and may take another couple of years to be fully implemented. The sheer size and wide distribution of skilling among different ministries and state government make the situation even more complicated. The absence of robust monitoring mechanism at the national level leaves the question of both quality and standardization unanswered.

5. Coverage and Lack of mobility between vocational and formal education

The majority of the vocational training courses, if not all, require the completion of middle-class education (till standard eight). It is highlighted in earlier sections that ~48% of the working-age population is either illiterate or has completed only primary education. The low level of education leaves a vast majority of the population out of the formal vocational training system.

The current formal education system hardly focuses on vocational training and vice versa. There seems to be a problem of mutual recognition among the formal education and the vocational

¹⁹ National skills qualification framework was launched by Ministry of human resource development in India in 2013. It is a competency-based framework that aims to organize all the qualifications based on their learning outcomes by awarding from grade 1 to 10 irrespective of vocational, formal and informal education.

training system, which restricts the mobility of students from one system to another. As a result, students undertaking vocational education often lack the opportunity to pursue formal education at a later stage. Students can choose either the path of formal education or the path of vocational education, but not both.

6. Institutional Arrangements

The skills development programs and initiatives are dispersed among 21 central ministries which do not tend to have any effective coordination and monitoring systems in place. Many state governments also run their skills mission which also tends to face coordination challenges. Due to a large number of public entities, there are multiple norms, procedures, and directives, leading to duplication of efforts. The skilling capacities of different government bodies remain unaligned under one single organization and are hence unable to realize any synergies.

National Skills Development and Entrepreneurship Policy, 2015

The National Policy of Skills Development 2009 is subject to review every five years so that it can remain aligned with the current industry requirements and macroeconomic situation. With the establishment of the new government in May 2014, the Department of Skills Development and Entrepreneurship was created immediately after two months in July 2014. Subsequently, the Department was upgraded into the full-fledged Ministry of Skills and Entrepreneurship in November 2014. The ministry unveiled the new skills policy "National Policy for Skill Development and Entrepreneurship" in July 2015, that superseded the earlier National Skills Development Policy 2009.

The policy also launched the National Skills Mission with the aim of training 300 people by 2022. It is important to note that this target correction from 500 million to 300 million in itself reflects a first correction step and more realistic approach towards skills development. The earlier policy of 2009 seems to have adopted a very ambitious target without realizing or proposing a solution to create such a huge skilling capacity while maintaining the desired quality.

The new skills development and entrepreneurship policy seem to have taken the note of existing challenges and institutional bottlenecks discussed in the earlier section and proposed/taken many initiatives to address them in a more systematic manner. The new policy has given a tremendous impetus to coordination among different stakeholders in the skilling space, such as state governments, central ministries, NSDC, the private sector, training providers and trainees. It also aims to provide an overarching framework to all the skill development initiatives and programs in the country while bringing them together to a common standard. The different proposals and steps taken within the purview of the new policy are being discussed below based on their target area.

1. Increasing the coverage and incentivizing skills training

A new flagship scheme named “Pradhan Mantri Kaushal Vikash Yojana” (PMKVY) has been launched to incentivize the skills training. It gives financial rewards to candidates who complete and pass the approved skills development programs. The skills development programs chosen under this scheme are claimed to be aligned with the current industry demands. The scheme aims to train 1.4 million people by the end of 2016. As of March 2016, approximately 1.8 million youth have enrolled for new training under PMKVY, out of which 1.2 million have already completed the training⁵. This could be seen as a significant milestone and achievement for the scheme.

Within PMKVY, another sub-scheme named “Recognition of Prior Learning” has also been launched taking cognizance of the fact that majority of the Indian workforce is employed in the unorganized sector and don’t attain higher educational standards. It equips the informal sector workers to get assessed and certified for the skills they already possess. It aims to certify 1 million people by the end of 2016.

Both the schemes mentioned above seem to be a game changer. They are crucial to breaking the social barrier among potential candidates regarding the low perceived value of skills training. Incentivizing skills training is likely to have a significant positive impact, especially among the youth from marginalized and economically weaker backgrounds, given that it comes with financial benefits and is aligned as per the industry requirements. While implementing this scheme, it is critical to ensure that candidates pursue their expected career after completing the training and

receiving financial rewards. Hence, financial rewards should be conditional, else candidates will not attach any importance to it, as in the case with other already running free training programs.

In the unorganized sector, workers undertake job training for many years to develop the required skill set, which is often not recognized due to absence of any formal skills certification facility. The initiative of certifying already possessed skills can significantly help the workers to earn their due and demand justified compensation. Employers may also raise some concerns around measuring the skills and consistency, and hence it is imperative to take them into confidence by making them aware of the certification process, to make the initiative successful.

2. Financing

An initiative named "Skills Loan" has also been launched as part of the new policy. Under this initiative, prospective students can avail a loan ranging from INR 5,000-150,000 to undertake skills training. The initiative aims to provide loans to 3.4 million youth for the period of five years starting 2015. Many prospective students who come from a weaker economic background and unable to finance their skills training are expected to benefit the most from this initiative.

However, the success and impact of the initiative will greatly depend on the type of skills development programs for which the loans would be provided. It would be ideal for the government to pre-approve only those courses and programs under this scheme that are industry-aligned and can ensure job placements immediately after completion. It will help in first equipping the students to repay the loans, avoiding the situation of bad debt for government and secondly enable the students to make more informed and right choice in the selection of skill training programs.

3. Mobility and Integration between Formal and Vocational Education

The policy of 2015 spells out the aim of introducing vocational training classes in 25% of schools across India starting Standard 9 by 2020. The NSQF will be used by school boards for assessing and grading the vocational training courses. The integration will also be done for the polytechnics that currently offer only NSQF accordance vocational training courses. The polytechnics will also

be able to offer/award Bachelors in vocational education to enhance the mobility of students in vocational education to formal education.

On similar lines, the courses and qualification offered by ITIs will be integrated with an appropriate level of formal education in coordination with state/central boards of education. There has also been a plan to introduce relevant vocational courses in higher education institutes to enhance the employability of the candidates.

The initial steps as mentioned above, taken in the direction of coupling vocational and formal education systems, seem to be a good starting point. The detailed implementation plan of how NSQF and state/central boards of education will recognize each other's courses and qualifications remains to be seen. Considering the vast difference in technicalities in the formal and vocational education system, matching and bringing them to a similar level is not going to be easy. However, the achievement of enhanced mobility between the two formats may greatly benefit the people in the vocational space who want to pursue a higher degree in the formal education system, which at the moment is not possible so easily. The introduction of skilling in school curriculum will greatly help in negating the resistance and stigma among many young talented students to undertake vocational training programs in the future.

4. Industry Collaboration

The policy reiterates the commitment of improving the industry interface of ITIs. It refocuses on the point of inviting companies to run the ITIs, but the difference this time is about giving autonomy to the private sector by setting up Institute Management Committees. It has been noted that earlier policy has not been able to generate much interest among the private sector in running the ITIs, barring few cases. There are a few success stories such as participation by Videocon in the upgradation of ITI Latur in Maharashtra, Mahindra in ITI Solon in Himachal Pradesh, and others that are being supported by industry majors such as Maruti Suzuki. NSDC is allowed to continue to function in its previous form to build more market-demand focused skills development business models in partnership with the private sector while focusing on quality enhancement at the same time.

The active participation of industry will be sought for curriculum development of ITIs through sector specific councils and mentor's programs. This is expected to provide a good opportunity to private companies to help in updating the course structure and training standards, while not getting involved in the day to day management. The curriculum is now subjected to be reviewed every three years.

The Ministry of Skills Development and Entrepreneurship has recently notified the establishment of 7,000 new ITIs under PPP mode by the end of 2017. The government has also launched a scheme for upgrading at least one ITI in a state to 'Model ITI' with chairman of the Institute management committee (IMC) coming from industry.²⁰

With the mushrooming of so many new ITIs, the ultimate challenge will also be to regulate them effectively for maintaining the desired quality and standards. Given the current regulatory status of ITIs, it is very unclear from where exactly the capacity for regulating so many new institutions while also correcting the course of existing ones will come.

The new ITIs will supposedly be set-up near industrial clusters, so that providing apprenticeships and placements for students would be easier. The new policy also envisages to bring in the services sector into the Apprenticeships Act, hence providing more training and placement opportunities to vocational training students. It is also expected to help the service sector companies to employ trained people while reducing their cost of talent acquisition.

5. Addressing Information and Communication Gaps

Non-availability and accessibility to right information have been identified as one of the foremost challenges in the current skilling space as discussed in the previous section. The new policy indicated a couple of strategies and programs to address this issue. The first is launching a national skilling campaign to create awareness, followed by establishing a dedicated TV and radio channel. The skilling campaign has already been launched recently and is running on leading TV channels and social media. There has also been a provision to use the existing post office network, citizen

²⁰ Upgradation of ITIs under PMKVY, Press Information Bureau, Government of India.

service centres, and youth centres to provide targeted counselling to youth while helping them to choose the right skilling course.

The above outreach steps are likely to have a positive impact on improving public perception and branding of vocational education among youth in the country.

6. Capacity Building and Quality Control over it is

The focus of the earlier policy of 2009 has largely been on increasing the skilling capacity, for which quality had taken a hit. However, the new policy is trying to balance both capacity building and quality enhancement. The policy of 2015 gives particular emphasis on linking funding with the training outcomes, especially for the government supported schemes. The desired incentives will be coupled directly with the placement of the candidates so that the status quo maintained by the training providers can be broken.

The new policy also focuses on setting up the performance rating mechanism for ITIs to evaluate their performance and outcomes which are mostly missing in the existing system. To ensure transparency, the provision of tracking the employment of individuals who have received skills training for one year has also been proposed. The monitoring of the ITIs seems to have strengthened with the updated web-based MIS portal (www.ncvtmis.gov.in) that comes with the feature of submitting ratings of different ITIs. The portal is also intended to become the one-stop information source for all information and courses related to ITIs.

Nearly 15,000 instructors at ITIs have been trained by Directorate General of Training, and another 18,000 have also been trained through distance learning in 2015-16. This is a significant step in addressing the shortage of qualified instructors/teachers at it is, but much more still needs to be done.

The proposed quality enhancement measures and monitoring system seem to be the first step but appear to be well effective. The implementation challenges are many as ITIs and government training providers have hardly faced any critical quality review in the past. It is unclear how the monitoring system would evolve and ITIs respond. Also, whether the government would build

internal capacity or hire external reviewers to conduct the job still needs to be seen to assess its likely impact and challenges.

The new policy also comes out with few innovative suggestions such as using the vast public infrastructure for the skilling purpose, such as schools, government buildings, optical fibre network at railway stations and post offices among others. The existing capacity of public sector units and local industries could be used in the evening for giving practical hands-on training to ITIs and polytechnics students. The new policy is also giving impetus to setting up small skilling centres in villages, to provide vocational training to farmers, school-drop outs, housewives and the marginalized youth. These rural skilling centres are named as “Kaushal Vardhan Kendras” and will be established in partnership with the state governments and affiliated with the nearest ITI.

7. Standardization

A significant step taken in the direction of enhancing the quality of vocational training and maintaining singular standards is the introduction of quality assurance framework within existing NSQF. The assurance framework will be used to ensure that all the courses remain aligned to market demand while maintaining the desired quality outcomes. It will greatly help in keeping the consistency of outcomes across different training providers, paving the way for a singular national certification. It is mandated that all the vocational and formal educational training that involves skills training will have to get accredited by NSQF by 2018.

Nearly 1,461 qualifications (training programs), both from NSDC and it is, have been aligned with NSQF in continuation of an effort to maintain consistency in measuring outcomes of the training⁵. All the government skill training programs are aimed to be aligned to NSQF by the end of the calendar year 2016. This is certainly a significant step in ensuring standardization in various skills training programs in the country.

The sector skills councils have already started the process of defining the various job roles and standards, so that there is a minimal mismatch in desired standards in training and industry requirements. The job specific standards will also be a part of NSQF and will be adopted nationally.

Bringing both the training outcomes and job standards under NSQF will significantly help in removing the redundancies, confusion, and mistrust in the system. The singular standards and assessment framework will give confidence to employers about the expected skills-set from the candidates and vice versa. It will also help in providing justified placement opportunities to the candidates. Putting the deadline of 2018 will ensure that every training provider by now has started to align its courses as per the quality assurance framework which was pretty much absent in the recent past.

8. Tackling Institutional Bottlenecks

Given the fact that skills development is very dispersed among different entities and private players, the setting up of the Ministry of Skills Development and Entrepreneurship in itself is a big welcome step. The ministry is mandated to coordinate all the skills development efforts in the country and have notified the common norms for all skills development initiatives undertaken at different ministries/government agencies in July 2015 to ensure consistency⁵. The same is also expected to be replicated in case of private players as well. Parameters such as standards, funding norms, certification, and assessment will be fixed at the national level by the ministry, while giving enough flexibility to training providers to meet the local socio-economic requirements.

Another big step in this direction has been the transfer of twin verticals of training and apprenticeships under Ministry of Labour and Employment to Ministry of Skills Development and Entrepreneurship in 2015 itself. As a result, ITIs now come under the direct purview of the newly established ministry.

The initiatives mentioned above are expected to bring a reasonable amount of synergy in the skilling space. The challenge, however, is the mammoth task to bring all the different training providers, especially the government departments, to a common platform and adopt common standards. It may also require a significant change in their current functioning style which is not subjected to any thorough review till date and hence is expected to face some resistance.

The new policy also envisages the establishment of a labour market information system (LMIS), which is mostly missing in the Indian skilling space. The LMIS will be an integrated database that will give information on skilled labour force statistics, market demand and other important

indicators such as wages, industry structure, etc. The database will also integrate all other current databases in the skilling space to become a one stop solution for any information about skills development.

This information system can significantly help in addressing the different inefficiencies in the skilling space and be used by all the stakeholders. The government can use the database to gain actionable insights to develop focused policy interventions. The industry will greatly benefit regarding understanding the supply pool of skilled candidates. Most importantly, the candidates/students will be able to understand the market demand and then decide the course and training provider as per their career aspirations.

Conclusion

Skills development is a complicated and serious business that requires systematic efforts and focused government interventions to succeed. India, being a nation of 1.21 billion where one-fourth of the working age population is still illiterate, and 93% of the labour force is employed in the informal sector, poses a formidable challenge for any government to make an effective skills development policy.

Considering the sheer size of 300 million people who need skills training by 2022, it is very critical for the new skills development and entrepreneurship policy to focus equally on the aspects of scale, speed, and quality. The previous skills development policy 2009, though good at its intentions, missed the desired trajectory by focusing too much on increasing the skilling capacity without giving required importance to an effective monitoring and evaluation mechanism. The poorly trained candidates from outdated courses by different providers does not seem to give any competitive edge to India regarding its objective either to achieve jobs enabled economic growth or a supply skilled workforce to developed nations in the future. It, however, further strengthens the existing situation of slower jobs creation.

The current skills development landscape requires a complete overhaul for which the new skills development policy of 2015 seems to be reasonably well placed. As the new policy has been introduced only a few months back, it is both not possible and unfair to jump on the achieved outcomes. However, the initial progress on different proposed initiatives and focus on bringing

synergies in the skilling space look very promising. Usually one of the biggest hurdle, standardization and mobility between vocational and formal education has gained renewed focus within the new policy framework. The successful implementation of NSQF, including all its sub-elements, is expected to give a huge boost to India's skilling and job creation space if executed as its stated intentions.

India has always been attributed as a nation of policy unpredictability. However, it is worthwhile to note that the new policy and government did not repeal all the initiatives taken by the previous government and policy. The three-tier governance structure and NSDC are retained in the existing form with renewed focus on both quality and scale.

It is important to note that financial incentives alone cannot help in up-skilling the workforce. People do not seem to give much importance to free courses that come with little or no assurance of employability. Hence, it is imperative for the government to ensure that sound due to diligence shall be conducted on all the incentives linked skill training courses such as PMKVY and skills loans to avoid the earlier deadlock situation that does not benefit anyone and distort the whole labour market.

The approach and ideas outlined in the new skills development and entrepreneurship policy generate optimism, but a lack of clarity on detailed implementation plan raise some early concerns as well. Given the number of initiatives such as the opening of new ITIs, building labour market information systems, implementation of NSQF and other schemes, it is critical for the government to understand its resource base first before spelling out any directive. This phenomenon can also be looked into the context of the limited success of the 2009 skills development policy which makes big promises but does not take into account its capability to deliver.

Outlining ambitious targets and innovative approaches to solving market failures are just one part of the whole story. The setting up of a separate ministry for skills development is one important step in this direction. The achievement of desired outcomes would also require significant investment in government's capacity building along with recruitment of some subject matter experts from the private and social sector. The culture of not being subject to any critical review seems to have changed recently, and should be discontinued entirely in its true spirit to ensure the smooth implementation of the policy.

It is imperative to persuade companies to invest some fixed percentage of profits towards skills development as a part of their commitment towards corporate social responsibility. A dedicated skilling campaign for businesses is needed as well to educate them about the benefits of investing in upskilling their workforce, such as increased productivity and cost savings.

The private sector remains under-utilized when it comes to skills development. Just executing conventional PPP models for building ITIs is not sufficient. The present time demands more focused and engaged interventions where companies send their current/future employees to skill training centres and reemploy them with better compensation. The government may look at just providing the land on lease to the private sector and companies may be better placed to invest in training infrastructure. Companies are also best aware of the current technological advancements. Rather than just as an investor, the government should also rather relook at its strategy and focus on becoming an enabler and facilitator in the future.

Given the initial positive steps of the incumbent skills policy on enhancing both the quality and quantity of skilling infrastructure, it could be argued that the near future for India looks promising. The increased employability of the existing workforce is expected to generate the potential demand from industry for productive and high-end manufacturing jobs. Alternative steps such as Make in India could also supplement the government's effort in retracting the path of slower job creation led economic growth.

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References

1. 2011 Census data, Office of the Registrar General and Census Commissioner, Government of India.
2. Annual update 2015, National Skills Development Corporation, Government of India.
3. All-India survey on higher education 2014-15, Ministry of human resource development, Government of India, 2015.
4. Company profile, National skills Development Corporation, July 2015.
5. Directorate General of employment and training, Ministry of skills development and entrepreneurship website.
6. Education, skill development and labour force Volume 3, Labour Bureau, Ministry of Labour and Employment, Government of India, 2013-14.
7. Employment and unemployment situation in India, NSS 68th round, 2011-12, Ministry of Statistics and program implementation, Government of India, January 2014.
8. Enhancing Skills and Faster Generation of Employment, Approach to 12th five-year plan, Planning Commission, Government of India, 2012.
9. Estimating the Skill Gap on a Realistic Basis for 2022, Institute of applied manpower research, Planning Commission, Government of India, February 2013.
10. Factsheet, National Skills Development Corporation (accessed 18th November, 2016)
11. India skills report 2016, Wheelbox, 2016.
12. Ministry of skills development and entrepreneurship: Key Achievements and success stories in 2015, Press information bureau, December 2015.
13. National skills development mission – A framework for implementation, Ministry of skills development and entrepreneurship, Government of India, 2015.
14. National policy for skills development and entrepreneurship, Ministry of skills development and entrepreneurship, Government of India, 2015.
15. National skills development policy 2009, Ministry of skills development and entrepreneurship, Government of India, 2015.
16. NSDC targets to skill 3.3 million youth in 2014-15, National skills Development Corporation website, August 2014.
17. Press Information Bureau, Government of India, April 2015.

18. Quarterly reports on change in employment in selected sectors, 2011-2015, Ministry of Labour and employment, Government of India.
19. Shortage of trainers, Business Standard, 24 February, 2016.
20. Skills assessment India, International labour organization, October 2014.
21. Skills development in India: Challenges and opportunities. Athena Infonomics website.
22. Skill Development in India—present status and recent developments, Swaniti Initiative, 2015.
23. The Aspiring youth: Opportunities & Challenges of Skill Development, Ramadorai, National skills Development Corporation, September 2014.
24. Upgradation of ITIs under PMKVY, Press Information Bureau, Government of India, 10 August, 2016.
25. Vocational Training Industry in India: Need for strengthening the quality & monitoring mechanism, Pulse, March 2013.

Appendix 1: Incremental requirement of human resource, 2013-2022

	Employment - 2013 (Million)	Employment - 2022 (Million)	Incremental Human Resource Requirement (2013-2022)
Auto & Auto Components	10.98	14.88	3.9
Beauty and Wellness	4.21	14.27	10.06
Food Processing	6.98	11.38	4.4
Retail	38.6	55.73	17.13
Media & Entertainment	0.4	1.3	0.9
Handlooms & Handicrafts	11.65	17.79	6.14
Leather and Leather Goods	3.09	6.81	3.72
Domestic Help	6.00	10.88	4.88
Gems & Jewellery	4.64	8.23	3.59
Telecommunication	2.08	4.16	2.08
Tourism, Hospitality & Travel	6.96	13.44	6.48
Furniture & Furnishing	4.11	11.29	7.18
Building, Construction & Real Estate	45.42	76.55	31.13
IT & ITES	2.77	5.12	2.35
Construction Material & Building Hardware	8.3	11	2.7
Textile & Clothing	15.23	21.54	6.31

Healthcare	3.59	7.39	3.8
Security	7.00	11.83	4.83
Agriculture	240.4	215.6	-24.8
Education/ skill development	13.02	17.31	4.29
Transportation & Logistics	16.74	28.4	11.66
Electronic & IT Hardware	4.33	8.94	4.61
Chemical & Pharmaceuticals	1.86	3.58	1.72
Banking and financial services	2.55	4.25	1.7
Total	459.46	578.62	119.16

Data source: Press Information Bureau, Government of India.