

How to improve Graduate Apprenticeship Programme in India?

- Rishabh Kumar¹

EXECUTIVE SUMMARY

Apprenticeship is one of the most effective tools to bridge the skill gap. India is currently vying to be the global manufacturing hub; a well-functioning apprenticeship system can lead to realizing this objective. This policy brief presents a policy gap and proposes three recommendations to promote graduate apprenticeship in the country. These recommendations includes a new reformed apprenticeship policy with better governance structure, regular monitoring, and providing career guidance to students in secondary schools.

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The views and opinions in this paper are solely mine and the responsibility for the information set out lies entirely with me.

KEYWORDS

Apprenticeship, Unemployment, Graduate, Skill, Workforce, India

Introduction

With 66 percent of the total population below the age of 35ⁱ, India sees itself as the primary destination for global investment and aims to expand its economy. To achieve the same, it has to substantially increase its manufacturing prowess, which would require India to 1) further improve its business environment, 2) develop a skilled workforce to become a robust and favoured manufacturing destination, and 3) provide coherent policy directives.

In doing so, India will help millions live decent lives and reduce poverty. At almost 18 percent unemployment rateⁱⁱ, every one in five Indians who graduate is unemployed, which is on the higher side with respect to the overall unemployment rate of around 7.1 percentⁱⁱⁱ.

There are many factors for this high unemployment rate, especially for the youth. One prime reason is a lack of skills.^{iv} Considering the huge demographic dividend of India, it becomes pertinent to work towards skill development of Indian Youth, and apprenticeship could be one of the tools that could equip the youth with requisite skillsets, making them ready for the world of work. In fact, the International Labour Organization (ILO) recognizes the importance of apprenticeship in bridging the skill gap and helping learners acquire skillsets and knowledge to pursue the occupation of interest^v.

India, although it has an elaborate apprenticeship mechanism, its penetration amongst the youth appears to be limited, with only two in a hundred graduates opting for an apprenticeship. It certainly points out to the bottlenecks

present in the existing system, lack of cohesiveness amongst the implementing ministries, and lack of awareness amongst the youth, amongst others.

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This policy brief tries to address the above bottlenecks and attempts to develop the idea that Apprenticeship can become an important tool to bridge the skill mismatch amongst the youth and reduce unemployment through measures that can enhance the present efficacy of graduate apprenticeship programme in the country.

Methodology

This policy brief offers policy recommendations to build a robust Graduate Apprenticeship Mechanism in India by analysing and capturing evidence from the current apprenticeship mechanism in India and its outcome, the unemployment rate among graduates, and the industry outlook on the skill gap.

The policy brief also compiles the best apprenticeship practices in Switzerland and shares how to adapt them in the Indian context. The Swiss Apprenticeship Model is a dual education model which combines theoretical classes at a vocational school and apprenticeship at the host organization. It has resulted in two-thirds of students opting for the apprenticeship program, post-compulsory education. In India, the one-year graduate apprenticeship programme is followed by the completion of higher education (graduation). So far, this model has not yielded great results, as only two in a hundred graduates opt for an apprenticeship.

The base year for doing the comparative analysis between the number of apprentices and graduates has been taken as 2019-20 because of the non-availability of comparable datasets in recent years².

Apprenticeship in India

The Apprenticeship in India aims to build a pool of fully qualified, skilled artisans (see Box 1). It includes both basic training (theoretical instructions) and on-the-job training at the actual workplace. After the training, apprentices appear in the All-India Trade Tests (AITT), and the successful apprentices are awarded the National Apprenticeship Certificate.

The Ministry of Skill Development and Entrepreneurship (MSDE) of the Government of India is the nodal agency to guide the apprenticeship training program in the country. The governance mechanism of apprenticeship in India is shown in figure 1. There are also four regional Boards of Apprenticeship Training (BOAT) under the Ministry of Education, which implement the apprenticeship scheme for the graduates in the country (figure 2). BOAT runs the National Apprenticeship Training Scheme (NATS)³ to promote the apprenticeship model for the graduates and technicians. MSDE also runs various schemes like Pradhan Mantri Kaushal Vikas Yojana (PMKVY), degree apprenticeship programs, etc., to train the graduates.

² The last annual report from the Ministry of Education published was in 2017-18.

³ NATS is valid till March 31, 2026 as per current status. Link: <https://www.timesnownews.com/jobs/national-apprenticeship-training-scheme-to-continue-till-2025-26-to-include-streams-apart-from-engineering-article-90360018#:~:text=National%20Apprenticeship%20Training%20Scheme%2C%20NATS,the%20NATS%20scheme%20till%202026.>

Box 1: Apprenticeship Act 1961: Salient Features

The Apprentices Act, 1961 (amended up to 2014) defines an apprentice as “a person who is undergoing apprenticeship training in pursuance of a contract of apprenticeship” and apprenticeship as, “a course of training in any industry or establishment underwent in pursuance of a contract of apprenticeship and under prescribed terms and conditions which may be different for different categories of apprentices.”

As per the Act, there are three kinds of apprentices: Trade Apprentice, Graduate Apprentice, and Technician Apprentice.

The Act defines Graduate Apprentices as “an apprentice who holds, or is undergoing training in order that he may hold a degree or diploma in engineering or non-engineering or technology or equivalent qualification granted by any institution recognised by the Government and undergoes apprenticeship training in any designated trade.” There are 163 designated trades for graduate apprentices, and the duration for which is one year.

Recent Apprenticeship Initiatives by the Government of India

- The launch of the National Apprenticeship Promotion Scheme (NAPS) in 2016 aims to promote apprenticeship in the country by providing financial incentives, technology, and advocacy support.
- Launch of an online apprenticeship portal in 2016 to monitor apprenticeship training across the country and serve as a single platform for candidates, industry, and training institutes².
- Since 2016, the Government of India has been putting all the expenses on the apprenticeship training for establishments engaging more than 2.5 percent of apprentices of their employee strength under Corporate Social Responsibility funding.

To promote apprenticeship in India, the Apprenticeship Act mandates enterprises having a workforce of 30 or more to engage apprentices in a band of 2.5 percent to 15 percent of their total workforce^{vi}.

Figure 1: Governance Mechanism of Apprenticeship in India

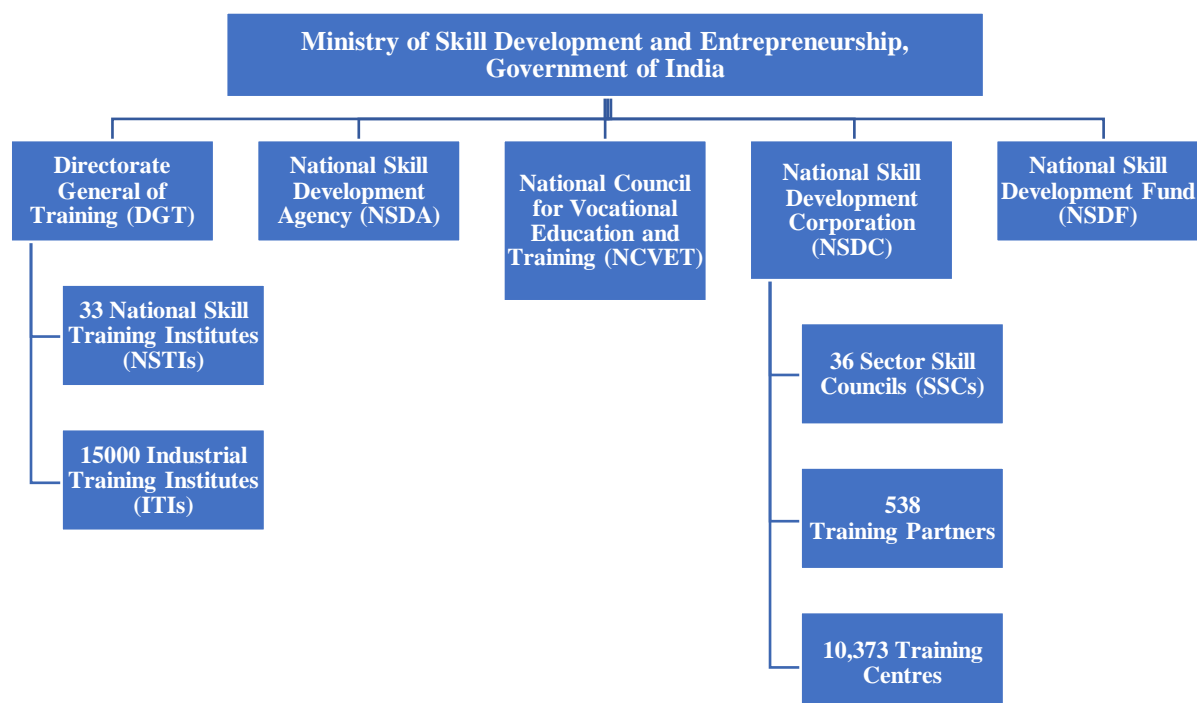
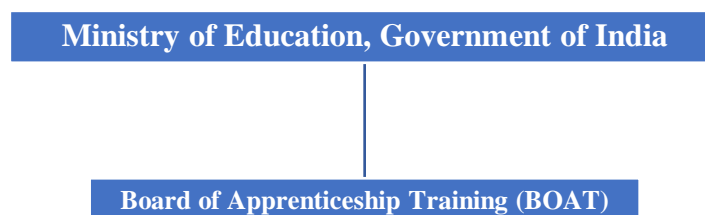


Figure 2: Governance Mechanism of Graduate Apprenticeship in India



Comparative Analysis vis-à-vis Apprenticeship Models of Other Countries

The Indian apprenticeship model targets the promotion of the apprenticeship programme at all levels, including national, state, district, and block levels. However, owing to the multiple ministries (MSDE & MoE) and departments overlooking the implementation of the apprenticeship programme (as mentioned in the above section), makes the governance model complex and hinders the smoother implementation of the apprenticeship programme.

According to the 2019-2020 apprenticeship statistics, some 74,598 active establishments and a cumulative of 0.26 million apprentices have been engaged^{vii}. The total enrolment at the undergraduate level was estimated to be 22.3 million,⁴ and the total pass-outs were 4.86 million in 2019-20 (see the following table)^{viii}.

Streamwise Undergraduates		
Streams	Number of Students (in millions)	Pass Outs (in millions)
Arts/Humanities/Social Sciences	9.66	2.03
Science	4.76	1.08
Commerce	4.16	0.93
Engineering and Technology	3.73	0.82
Total	22.31	4.86

Calculating region-wise graduate apprentices (North, South, East, and West) registered through NATS and as per BOAT under the Ministry of Education, the number of registered graduate apprentices for 2019-20 was 117,157^{ix}. This is merely 2.4 percent of the total graduates⁵.

Recent data shows that the number of apprentices has increased from 0.11 million in 2016-17 to 0.69 million in 2020-21^x. Establishments providing apprenticeships increased to 20747 in 2021-22 from 11948 in 2016-17^{xi}. The good news is that nearly 72 percent of Indian employers (out of 871 employers surveyed) are looking to hire apprentices in India^{xii}.

⁴ The number of graduates data is based on the All-India Survey on Higher Education 2019-20, Ministry of Education, and may differ from the actual figure.

⁵ Number of apprentices differ in the data provided by the Ministry of Skill Development and Entrepreneurship, and the Ministry of Education.

However, this enthusiasm does not reflect the number of graduates opting for apprenticeships. It has been observed that there also exists a lot of ambiguity around the apprenticeship programs, especially in rural areas^{xiii}.

In terms of employment, the post-pandemic period in India saw a decline in the overall unemployment rate from 24.08 percent in May 2020 (at the peak of COVID-19) to 7.1 percent in May 2022. However, the unemployment rate amongst the graduates has marginally come down from 21.2 percent in May 2020 to 18 percent by the end of April 2022^{xiv}.

This highlights the significant difficulty enterprises face in filling the vacancies in the dearth of the skilled workforce (See [Wheebox India Skills Report 2022](#)). It also shows that this is the time to take decisive steps to modify the training landscape in India and include apprenticeship as a tool in tackling these skill shortages.

The following gaps have been identified that dampen the reach of apprenticeship programmes:

1. Non-integration and non-convergence with the relevant ministries like the Ministry of Education, Ministry of Labour, etc. and educational institutes.
2. The multiplicity of the governance structure leads to confusion and a non-coherent standardization mechanism.
3. Lack of awareness amongst students and organisations.
4. Job uncertainty post-apprenticeship

The aforementioned gaps can be bridged by developing robust apprenticeship mechanisms, which clearly demarcate the roles and responsibilities of the ministries and departments. The

Box 2: Best Apprenticeship Practices in Switzerland

Switzerland has successfully integrated its education with the apprenticeship. Apprenticeship, post-compulsory education in Switzerland, is the most preferred choice, with nearly two-thirds of students opting for an apprenticeship. In 2021, the vocational education and training statistics recorded 211,583 apprenticeships.

Some of the steps taken in Switzerland to promote apprenticeship are as follows¹:

1. The establishments/employers increase the stipend/salary of apprentices with each completed year.
2. The Swiss vocational and professional education and training (VPET) system is labour market-driven and need-based as per the specific industry requirement.
3. A chance for apprentices to get retained in the host organization as it decreases recruitment costs for the organization. Companies see huge Returns on Investment as they see \$474 million in net benefits from investing in apprenticeship training.
4. The Swiss dual education system allows apprentices to choose different career paths.
5. The public-private partnership is robust, and VPET even provides career counselling.

International Labour Organization (ILO), too, advocates for a robust regulatory framework coupled with social dialogue, strong labour market relevance, etc., for providing quality apprenticeship^{xv}.

India could also consider best practices from countries with successful apprenticeship systems, such as Switzerland (See Box 2), Germany, France, etc. They follow a dual education system, where apprenticeship is well-integrated with higher education. The model has proved effective as France and Switzerland reported 629,000^{xvi} and 212,146^{xvii} apprentices, respectively. Another example of good industry-education integration can be seen in China, where the Government has launched a new apprenticeship programme that connects schools and businesses while monitoring its overall implementation. It shortlists companies on basis of several parameters, including the five-year national strategic plan, capacity and demand of a company,

etc^{xviii}, and provides incentives to both the organization and apprentices and ensures that the apprentices receive a salary more than the local minimum wage^{xix}.

A clear governance structure leads to the smoother implementation of apprenticeship programmes. While the Ministry of Labour, Employment and Professional Integration, in collaboration with regional authorities, primarily looks after the implementation of Vocational Education and Training (VET) in France^{xx}, Federal Office for Professional Education and Technology (OPET), in close association with the Confederation, cantons and organizations, work toward the implementation of the apprenticeship model in Switzerland.

The following section proposes some recommendations which address some of these gaps mentioned above.

Recommendations

Promoting a robust graduate apprenticeship mechanism can solve many of India's decent work challenges, such as unemployment and skill deficit.

Based on the above, this policy brief proposes the following recommendations to address some of the gaps identified above:

1. A new reformed apprenticeship policy lead by MSDE to better integrate the apprenticeship program with the national higher education curriculum. The policy should ensure cohesiveness amongst ministries, academia, and industry, which simplifies the governance structure of apprenticeship.
2. The [designated trade practices](#) should be regularly monitored and updated in consultation with academia and industry. A labour market-driven and need-based trade practices could lead to a more dynamic apprenticeship mechanism. . It would boost the confidence of the industry to adopt apprenticeship training as it would not only positively affect the hiring cost of the skilled workforce but also give them better Returns on Investment as it has done in Switzerland (see Box 2).
3. Provide career guidance services to students at the secondary education level to make appropriate career choices. It would make apprenticeship attractive amongst students. The same is done under the Swiss dual education system. The graduate apprenticeship programme in India should opt for a dual education model and not be restricted to a one-year apprenticeship programme post-completion of higher studies (graduation). India's apprenticeship program usually restricts graduates from choosing only one registered trade at a time. It should be flexible for students to opt for different trades of interest. Run nationwide campaigns to generate awareness like the campaign in Switzerland- 'Earn while you learn.' conduct awareness amongst industries regarding the benefits of apprenticeship programs through one-to-one consultation, industry associations, workshops, seminars/webinars. It could include social marketing and advocacy plans for each relevant stakeholder.

Conclusion

This brief has presented an overview of the Indian apprenticeship system and identified some of the current challenges. It has proposed specific recommendations to deal with the gaps and challenges. With a new integrated policy on apprenticeship, India should be able to seize the opportunity of the current global crisis in the supply chains and make the country a manufacturing hub. India did it during the Y2K problem when there was a need to review the line-by-line code of every computer in the world, and India was ready. As a result of this success, India is a leader in providing IT services today. Similarly, India can be a manufacturing hub and attain the socio-economic target it has set for itself if it reforms its apprenticeship systems.

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Endnotes

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