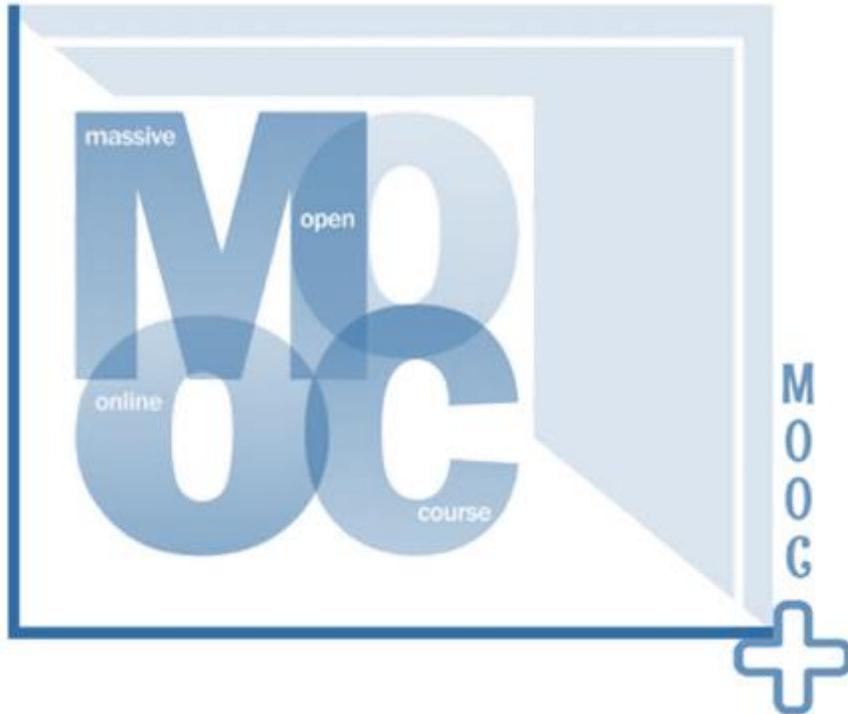


Apprenticeship

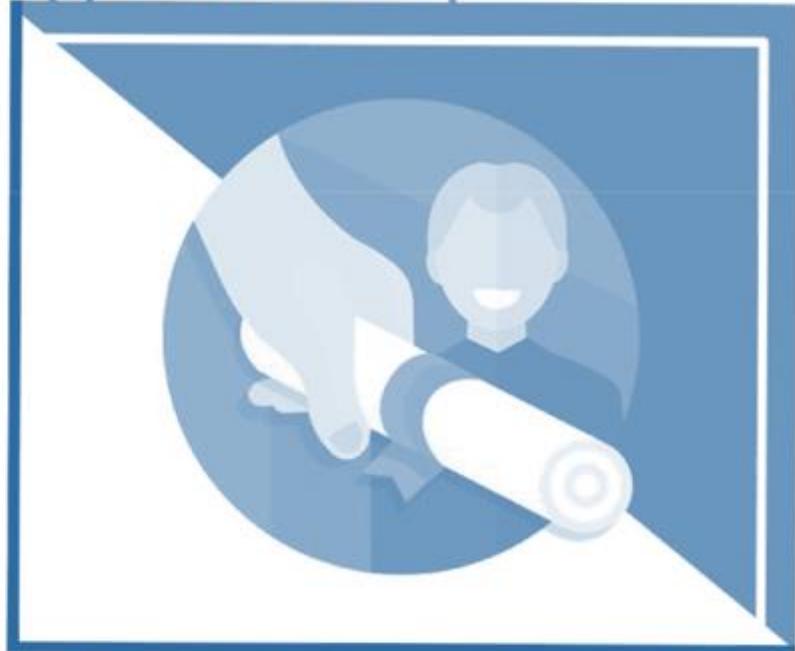


MOOC IN APPRENTICESHIP

For Employability and Employment



Apprenticeship



MOOC IN APPRENTICESHIP

For Employability and Employment

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About the Report

This report delves into the two most impetuous forces of doing and learning – Apprenticeships and MOOC – and attempts to unravel the ensuing benefits of employability and productivity for businesses. It does so with along with the help of an analytical toolset comprising of an Apprenticeship Index and an Employability Index.

Learning-by-doing and learning-while-earning. Doctrines that we, as a nation, paid scant regard to are coming home to roost. Over the past 25 years as India transformed itself and hurtled through a series of events and opportunities – economic reforms, the IT and ITeS revolution, the financial crisis, demographic dividend and, now, the knowledge economy – we have come to pause and stare at jobless growth. This, even as 13 million new entrants throng the workforce every year.

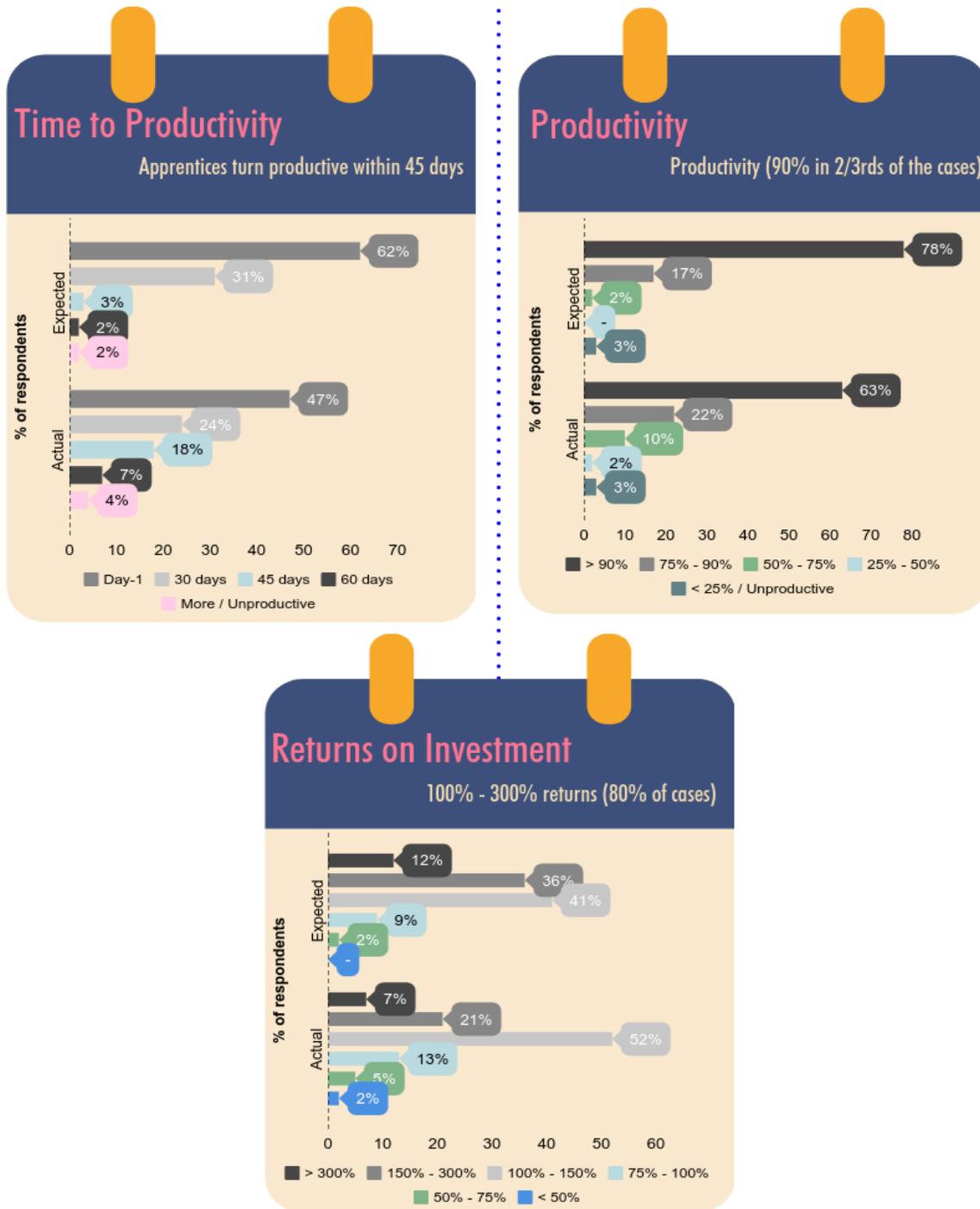
Apprenticeships, in India, are finally getting the much needed impetus that the entire world has always accorded to them. The government and businesses, alike, are sensitizing themselves to the mammoth skilling and employment opportunity that lay ignored for decades, and are taking strident steps to reviving this employability-employment imperative.

While, on the other hand, the MOOC revolution is redefining not just education but fundamentals of learning itself. So much so that its rapid adoption in India is as equally spearheaded by businesses as by individuals. On the job learning is being transformed by online learning so effectively that it turns out this could revolutionize employability as well.

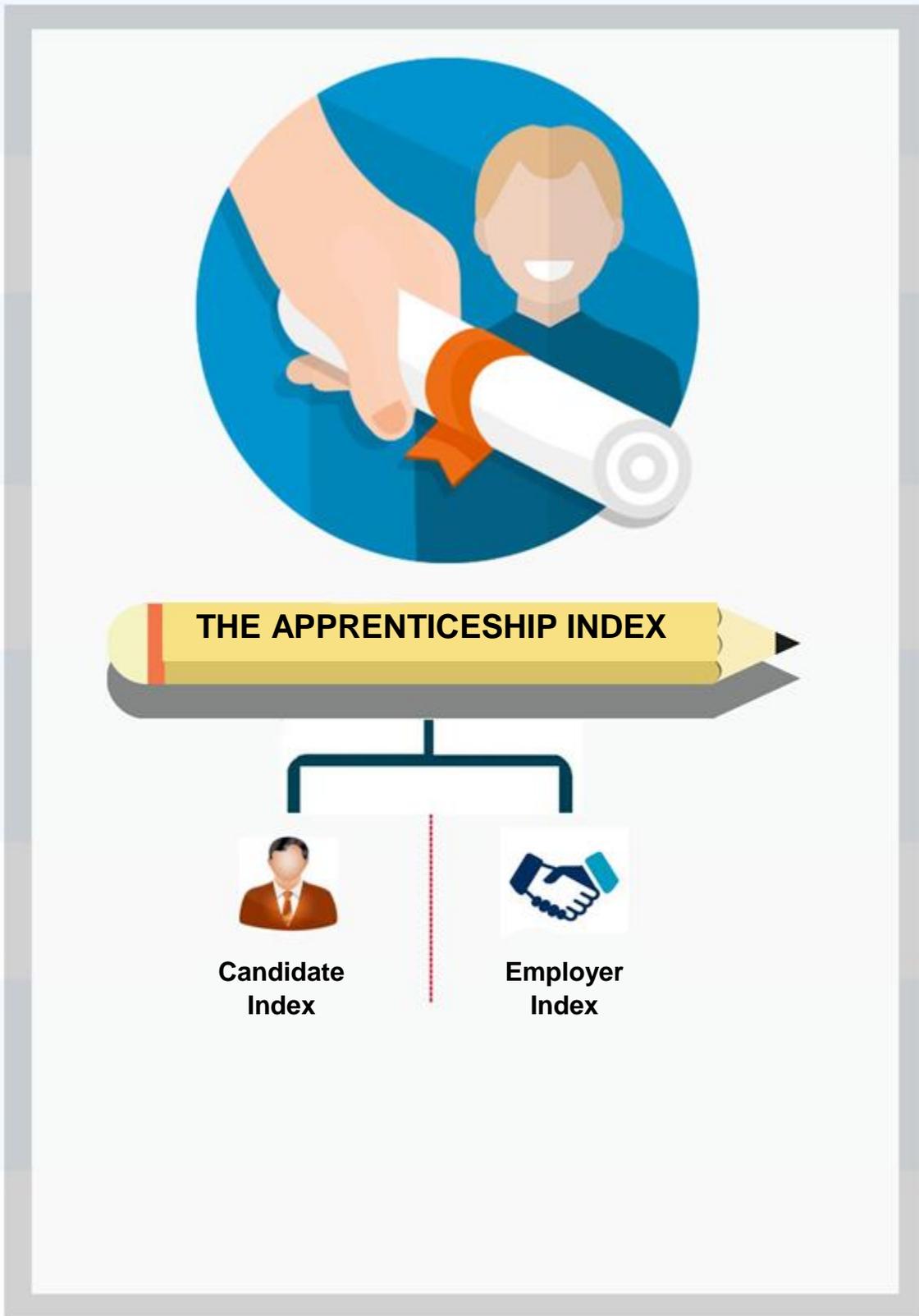
EXECUTIVE SUMMARY

1	Business benefits of Apprenticeships	<ul style="list-style-type: none"> A. Productivity (90% in 2/3rds of the cases), time to productivity (within 45 days) & ROI (100 - 300%) B. Add MOOC - potent solution for superior Skill Development and Employability.
2	Apprenticeships is the most effective tool	<ul style="list-style-type: none"> A. Apprenticeships is the most effective skilling / employability / employment tool which could help India get closer to its ambitious targets of skilling 500 million and filling 120 million jobs in 24 key sectors (including construction, retail, transportation logistics, automobile, and handloom) over the next 6 years.
3	Apprentice Outlook Index	<ul style="list-style-type: none"> A. Helps govern the performance of Apprenticeship programs and track progress. B. Apprenticeship Index (current) : 0.182 C. <ul style="list-style-type: none"> i. Candidate-side Index: 0.3531 ii. Employer-side Index: 0.0119 D. Skill attributes of apprentice candidates are just marginally lower than employer expectations. They have appreciable levels of Skill Proficiency (demonstrability and repeatability) as well. E. Salary expectations of a majority of apprentice candidates is just 10% to 50% in variance with what employers are willing to pay.
4	Apprentice Employability	<ul style="list-style-type: none"> A. Apprentices have substantially better employability than the average Engineer or MBA for the role they perform in, and much closer to employer expectations B. Apprentice-side Employability score: 5.31 C. Employer-side Employability score: 7.84
5	Tailor made for India	<ul style="list-style-type: none"> A. Anywhere-anytime convenience B. Intuitiveness of tactile interface C. Access to top quality content, pedagogy and collaboration D. Tailor made for India, where 30% of labourforce is illiterate and 55% has studied secondary school
6	Zero marginal cost model	<ul style="list-style-type: none"> A. Global demand for MOOC: 25 Million users B. India accounts for 2.5 million users C. MOOC fundamentally changes learning D. Zero marginal cost model is disrupting learning
7	Agile, mutual, learning infrastructure	<ul style="list-style-type: none"> A. An agile, mutual, learning infrastructure is proposed as the pivot on which employers can reap the benefits promised by the MOOC-Apprenticeship combine.
8	Government initiatives	<ul style="list-style-type: none"> A. National Apprenticeship Promotion Scheme (aims to create 50 lac apprentices by 2019-20) B. Other policies, amendments & public-private initiatives like NETAP are set to transform skilling

BUSINESS BENEFITS and EMPLOYER EXPECTATIONS



Apprentices do exceedingly well on three key employer expectations. Their productivity turnaround is usually very quick and productivity levels and the ROI also match expectations favorably.



Candidate Index

Employer Index

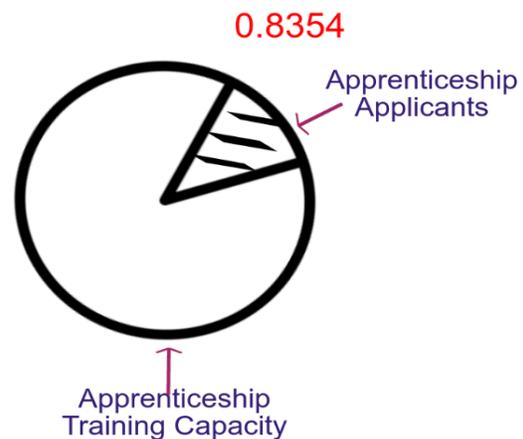
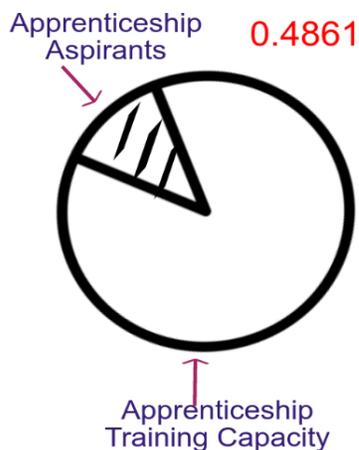
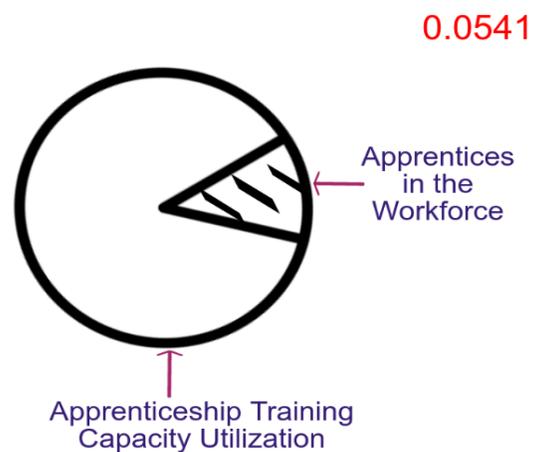
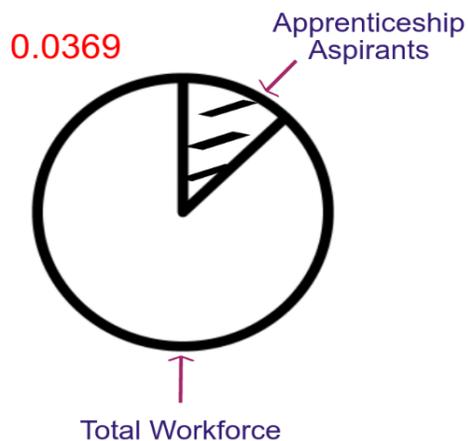
Apprenticeship Index

0.183



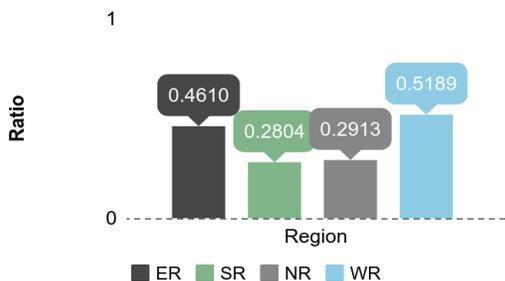
Candidate INDEX

0.3531



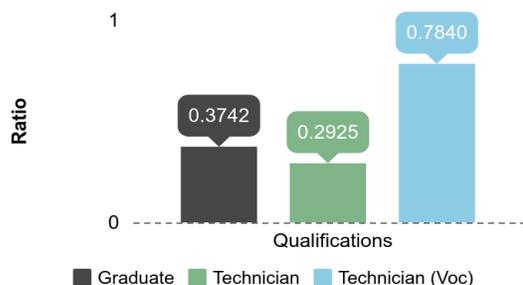
The Apprenticeship Index is comprised of the Candidate Index, the Employer Index and the Funding Index. The Candidate Index takes into account the contribution of the apprenticeship supply side to the job market. It also considers the efficacy of the apprenticeship infrastructure in the country.

Region-wise breakdown

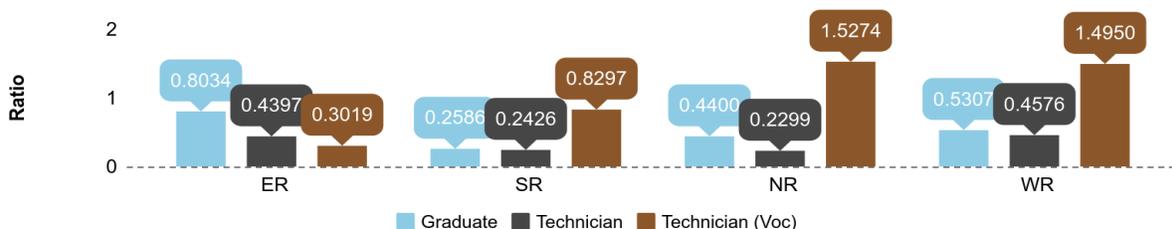


Candidate INDEX

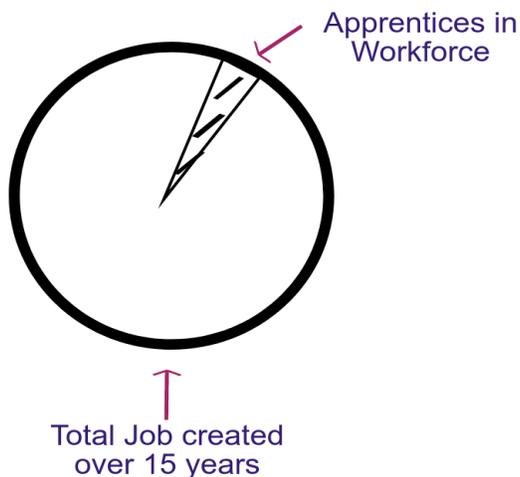
Qualification-wise breakdown



Supply-side Index - breakdown by Region and Qualification

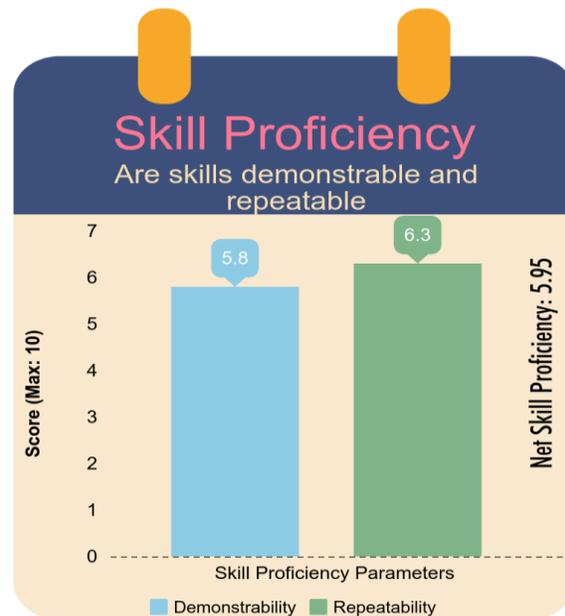
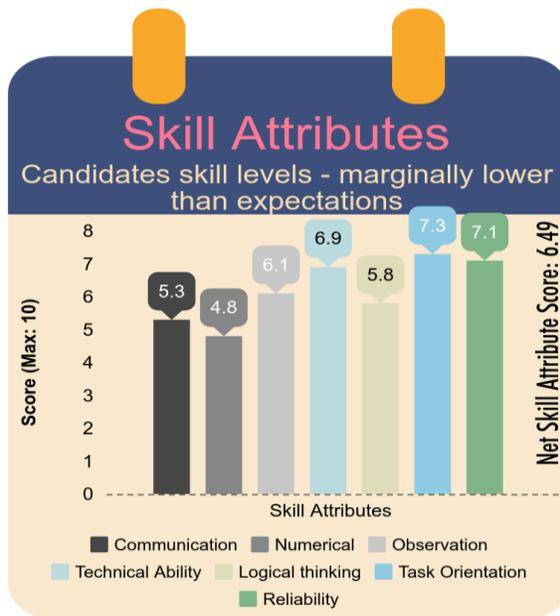


Employer INDEX **0.0119**



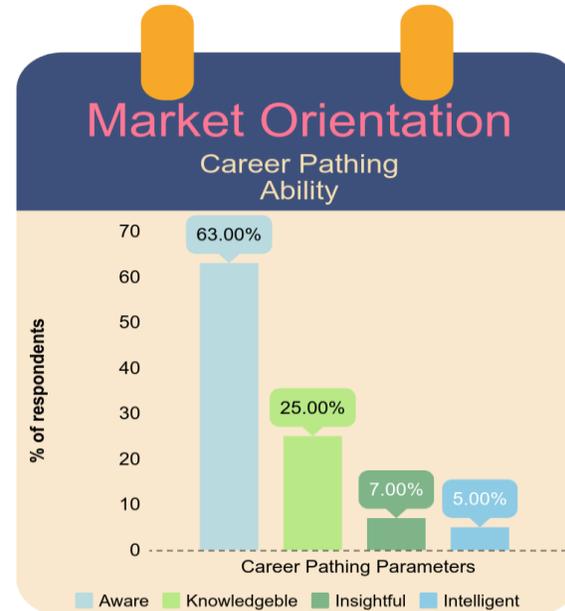
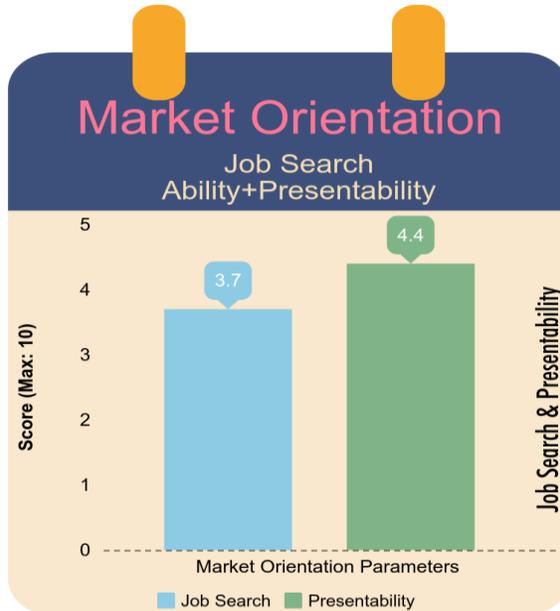
The Employer Index is a measure of the proportion of Apprentices in the workforce vis-à-vis total jobs created over the last 15 years.

Apprentice Employability



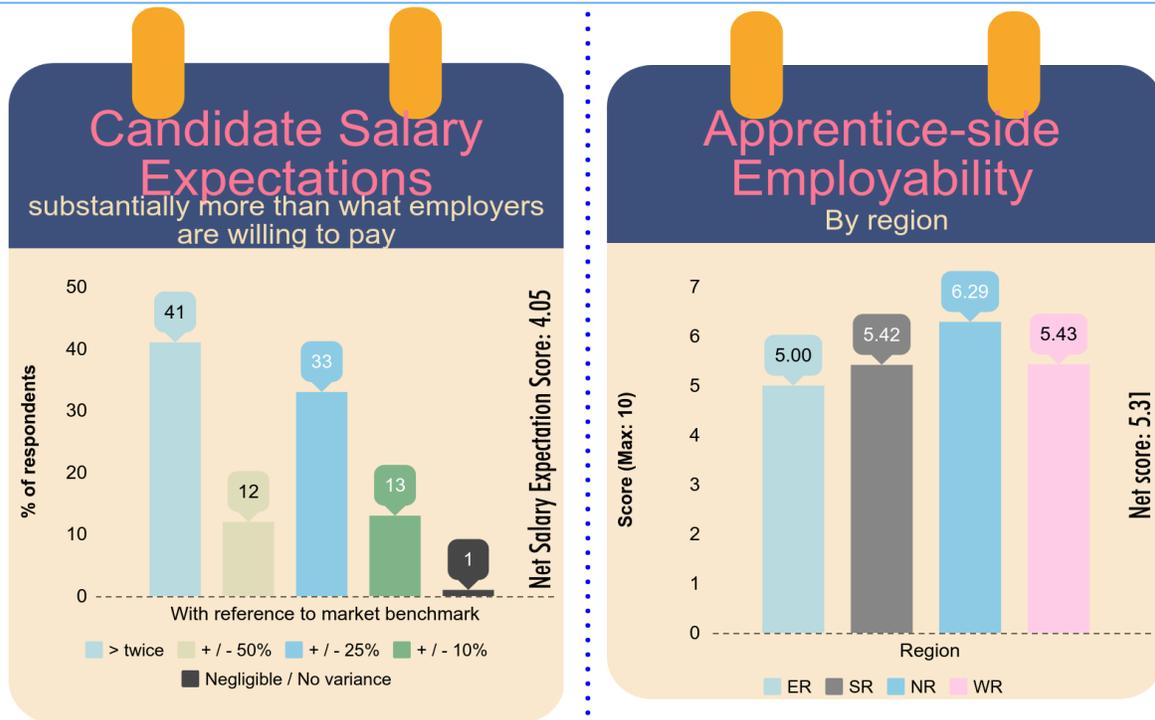
APPRENTICE-SIDE EMPLOYABILITY

Net Score: 5.31



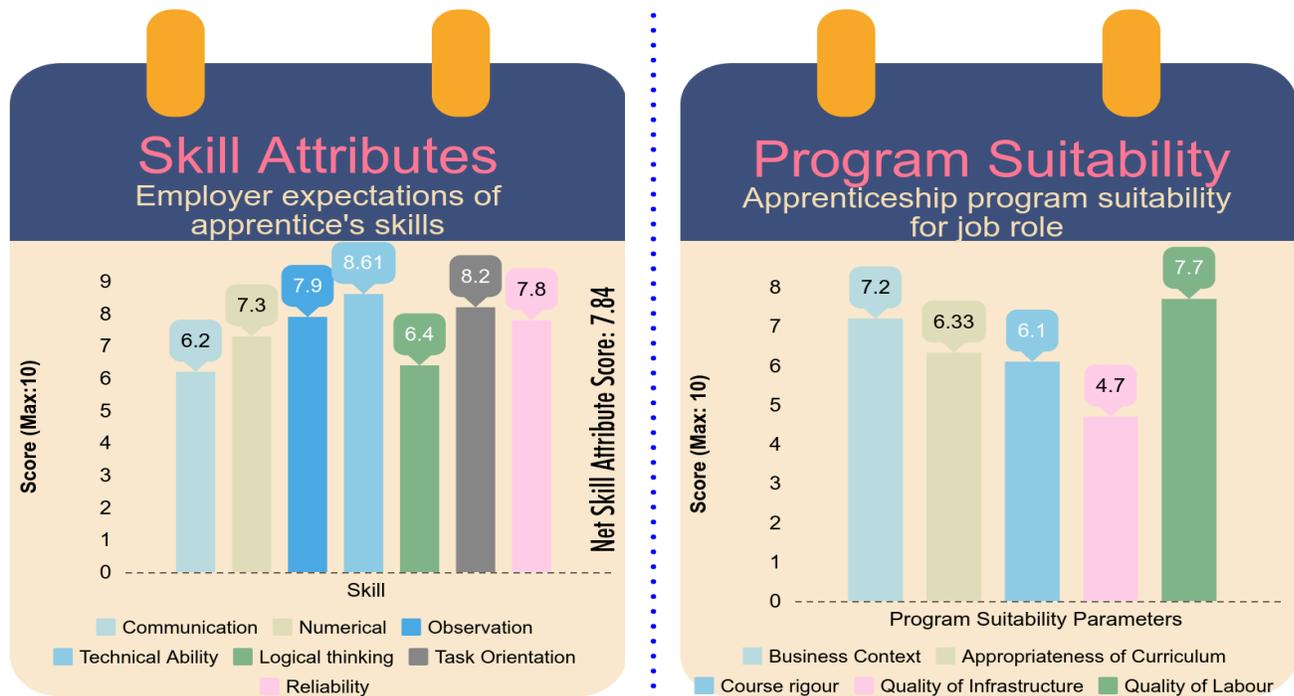
The Employability framework breaks down Apprentice and Employer characteristics related to Apprenticeships and computes an Employability Index on both sides. The framework is useful to measure and compare the employability of different markets and stakeholders, and assess the performance of apprenticeship programs.

Apprentice Employability



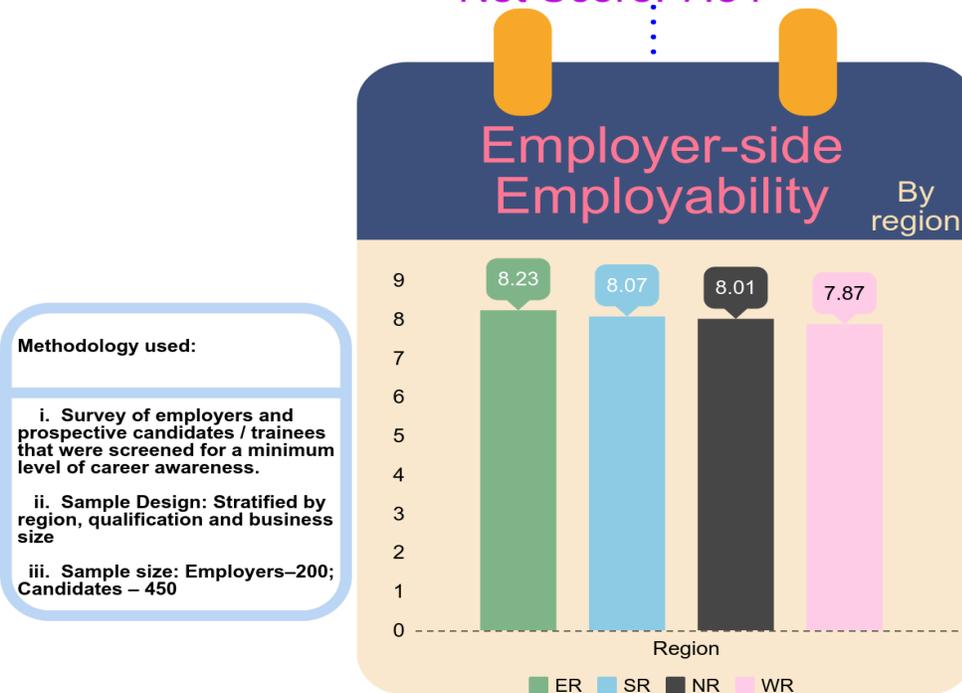
The Apprentice side Employability is an aggregate of three dimensions – Skill Attributes, Skill Proficiency and Market Orientation. Apprentices have a significantly higher salary expectation as compared to the market benchmarks.

Apprentice Employability



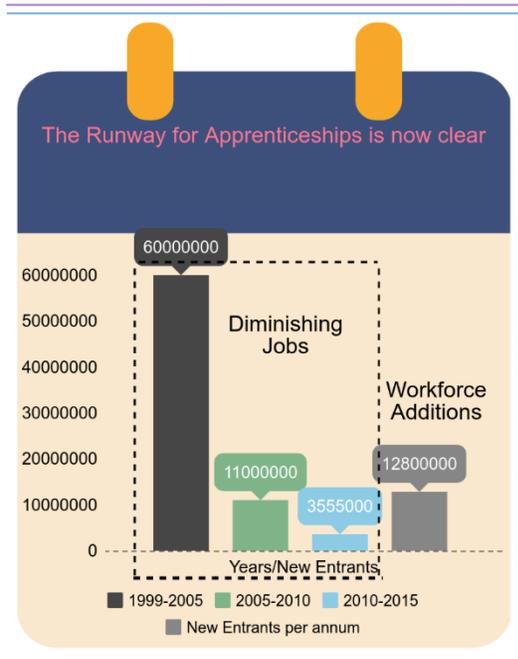
EMPLOYER-SIDE EMPLOYABILITY

Net Score: 7.84



Employer expectations of candidate skills across the seven attributes. Apprentices that are confirmed in employment were considered here. Employer perceptions of Apprenticeship program suitability for job role. This is applicable in cases where employers are hiring apprentices trained in government or third party apprenticeship programs.

Apprenticeships – an employer imperative



500 million to be skilled over the next 6 years and 120 million jobs to fill across 24 key sectors

Apprenticeships – a tool of employability and employment. India has a meagre 3 lakh apprentices, compared with Germany's 3 million and Japan's 10 million.

About 42,000 employers in India appoint apprentices, as much as one state in Australia, Queensland. The UK has 2 million apprentices.

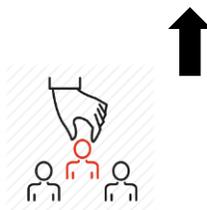
Apprenticeships leverage existing training facilities; enhance employability and aspirant confidence through structured and rigorous experiential learning

Archaic laws that employers fear and avoid (now substantially amended) and abysmal training capacity



Employer perceptions are further compounded by low awareness levels, non-applicability to most sectors and trades and belief that they offer poor or negative ROI.

Most recent amendments to the Apprentice Act - resolves ambiguities surrounding leaves and holidays, weekly and daily hours of work – scraps prosecution provision for range of violations which made the act draconian in nature.



The amendments:

- 1) Allow a slew of trades and qualifications that have been traditionally kept out of it
- 2) Allow coalitions of employers to participate as single entities- affording better facilities, resources and economic viability.

Present regime's announcements:

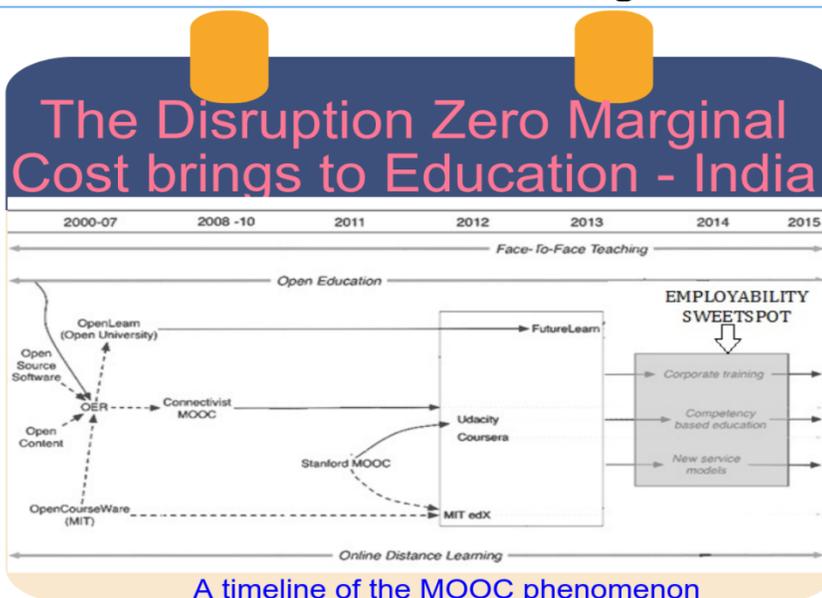
- 1) National Apprenticeship Promotion Scheme and
- 2) Proactive measures in the National Policy of Skill Development and Entrepreneurship.

Handsome Gains

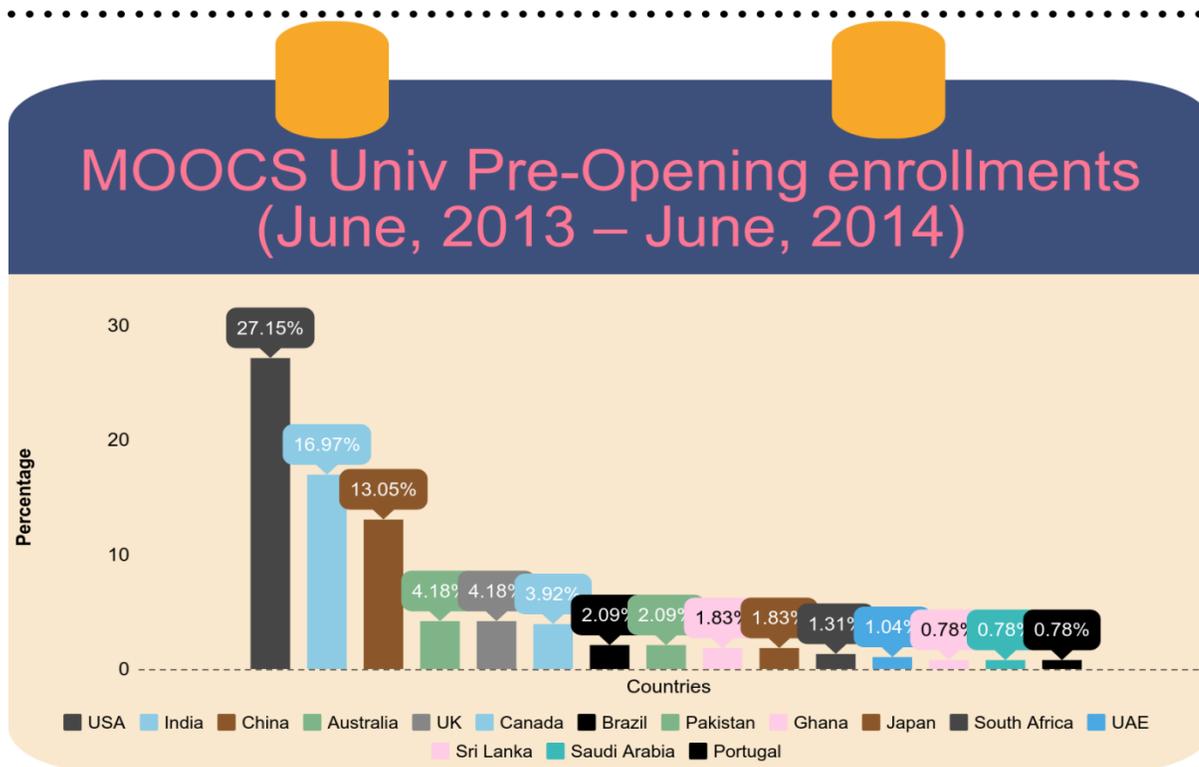
Multiplier effect of Apprenticeship on Matching and Employability

India needs to worry about how the millions that enter the job market every year would be gainfully employed. While, on the other hand, businesses have a problem of matching and employability. Public, private, and private-public initiatives at mere skilling may not fill the gaping void.

MOOC: redefining education



MOOC has come a long way from academic adoption to corporate training .. Impacting basics of learning to skill development and vocational training.

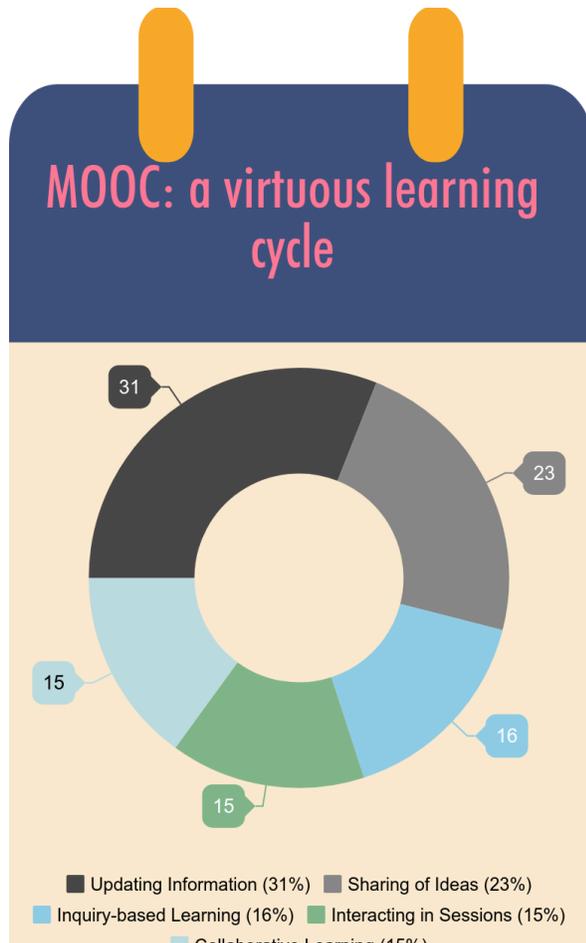


Global demand for MOOC: over 25 million; India's share > 10% (est). India's participation in the 2013 MOOCs University Pre-Opening enrollments a testimony to the potential.

MOOC have transformed the roles of all participants in the learning process. In fact, the simplest way one could look at MOOC is as a continuous learning platform where everybody is a learner. The teacher is an 'expert learner' who employs interactive teaching techniques like modelling and demonstration. The learner reflects and practices.

Digital and Learning Effectiveness

How MOOC-based Digital Learning Transforming Jobs Across Sectors



MOOC enriches learning in ways conventional education cannot

The convenience + personalization + world class pedagogy + global peer influence - available to all today.

Deep learning + perspective - game-changer for employability initiatives.

THE NON-FORMAL SECTOR



Reaches millions left out from the formal sector and need to be non-formally trained for productive and gainful employment. Offers flexibility of time and place, personalization (choice of pedagogy and organizations).



MOOC assumes Do It Yourself (DIY) format to provide a truly on-demand, self-help, anytime learning opportunity.

Evidence recorded and demonstrable - format makes use of the 'Badges' system signifying accomplishment

The ubiquity of Mobile-Social collaboration in an enormously populous country such as India has astounding possibilities. With smartphone prices nose-diving and data consumption getting more affordable every quarter technology benefits are percolating down to the lowest common denominator.

Blending Apprenticeships with MOOC

APPRENTICESHIPS

- 1) Agile, Iterative, Milestone Centric
- 2) Innovation and ideas based
- 3) Cultural and technological change
- 4) Continuous, mutual, learning
- 5) High employability throughput

MOOC

- 1) Semi-structured course /on-demand content
- 2) Highly intuitive, modelling-based pedagogy
- 3) Workplace and 'away' learning
- 4) Physical 'Lab' for drill and practice
- 5) Performance Intelligence (via Assessments)

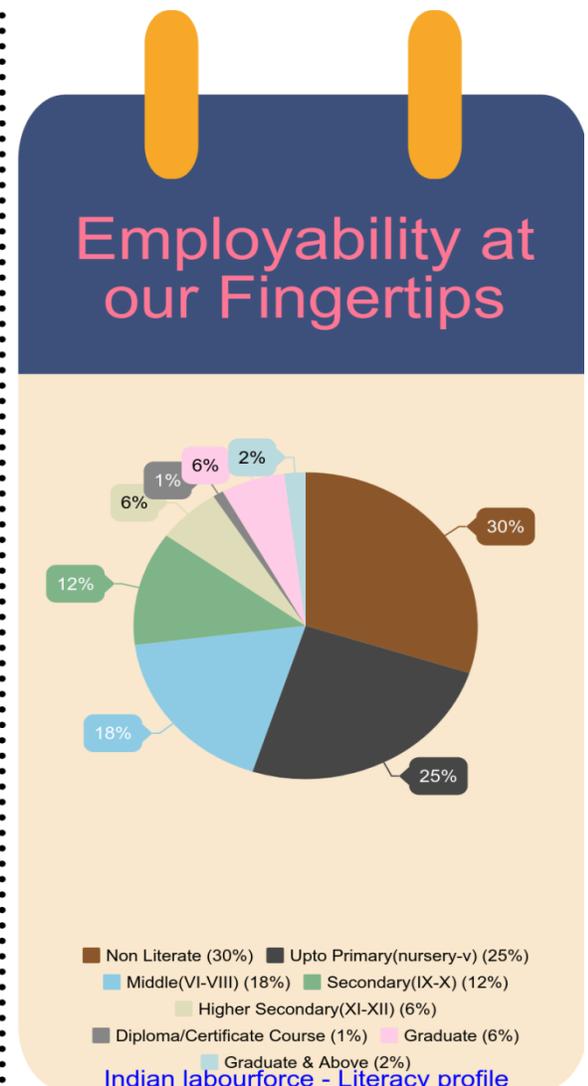
POLICY

- 1) Permit Academic Credit for Apprenticeships
- 2) Treat Online learning on par with conventional education
- 3) Overhaul certifications & include super-specialized/new-age trades & qualifications
- 4) Recognize semi-and unstructured course /badges of accomplishments over time
- 5) Widen the ambit of accreditation and provide for frequent / dynamic updates to curricula



The Outcome

- Quantum leap in Employability of apprentices.
- Dismantle the regulatory and cultural barriers to popularizing apprenticeships.
- Lay the foundation for achieving scale.



Bringing the best of learning and doing, and democratized learning, requires us to reimagine each of them as well as the regime that regulates them both. The interdependence of Apprenticeships and MOOC-based learning necessitates a cultural shift on part of the employer towards an 'agile', milestone-centric, work ethic that encourages innovation and inquiry.

APPRENTICESHIP SUCCESS STORIES

Mr. Amit Babulal Patel

is an Assistant Technician at Narmada Chematur Petrochemicals in Bharuch.

He did his Diploma in Instrumentation and Control from the Board of Tech. Examinations, Gujarat and pursued Apprenticeship training at the company during 2000-01. He not only benefited immensely from the program and got hired, he believes that his success after having gone through the program is most fulfilling. He recommends Apprenticeship to all aspiring candidates saying, "Apprenticeship Training is beneficial to the pass-outs because it provides practical knowledge and scope for employment. After apprenticeship training, I got job in the same company."



Mr. Devendra Rai

is a Production Engineer at Indore Steel & Iron Mills, Indore. He has a B.E. (Mech.) from Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal.

He pursued Apprenticeship training at the company during 2002-03. He owes his success to the program and has this to say, "Apprenticeship Training helps the candidates get acquainted with their field of work with a free mind which will build up self-confidence before getting regularised. Direct employment always causes pressure on a fresh candidate while coping up with the nature of duty and obligation. I, therefore, strongly believe that all freshers should undergo apprenticeship training for optimum success in their career."

Prevalent Initiatives to Promote Apprenticeships

GOVERNMENT INITIATIVES

* National Apprenticeship Promotion Scheme *



- The Scheme has an outlay of Rs. 10,000 crore with a target of 50 Lakh apprentices to be trained by 2019-20.
- 25% of the prescribed stipend payable to an apprentice would be reimbursed to the employers directly by the Government of India.
- 50% cost (Rs. 7,500 per apprentice) of the academic training of an apprentice would be reimbursed to the employers.
- The scheme also supports basic training by sharing of basic training cost with basic training providers in case of fresh apprentices.
- Public sector undertakings or corporates in technical and service sectors would be given Rs. 18,000 by the

* National Policy of Skill Development and Entrepreneurship *

- Focuses on apprenticeship as one of the key components for skill development.
- Proposes to work pro-actively with the industry to facilitate tenfold increase opportunities by 2020
- Skill development and entrepreneurship programmes for women are a specific focus of the Policy



* Amendments in 2014 to the Apprenticeship Act of 1961 *



- Employers can engage up to 10% of their total workforce as apprentices.
- Resolved ambiguities surrounding leaves and holidays, weekly and daily hours of work by apprentices, scrapping of the prosecution provision for a range of violations.
- Non-engineering courses, non-engineering graduates, diploma holders, new trades, are part of the scheme. It allowed industries to take more non-engineers as apprentices, depending on the nature of the job.
- Wages of apprentices were linked with the wages of semi-skilled industrial workers, and parity achieved on work time and leave benefits with the organized sector.
- Multiple employers are allowed to come together to provide apprenticeship training under them.

* National Scheme of Apprenticeship Training *



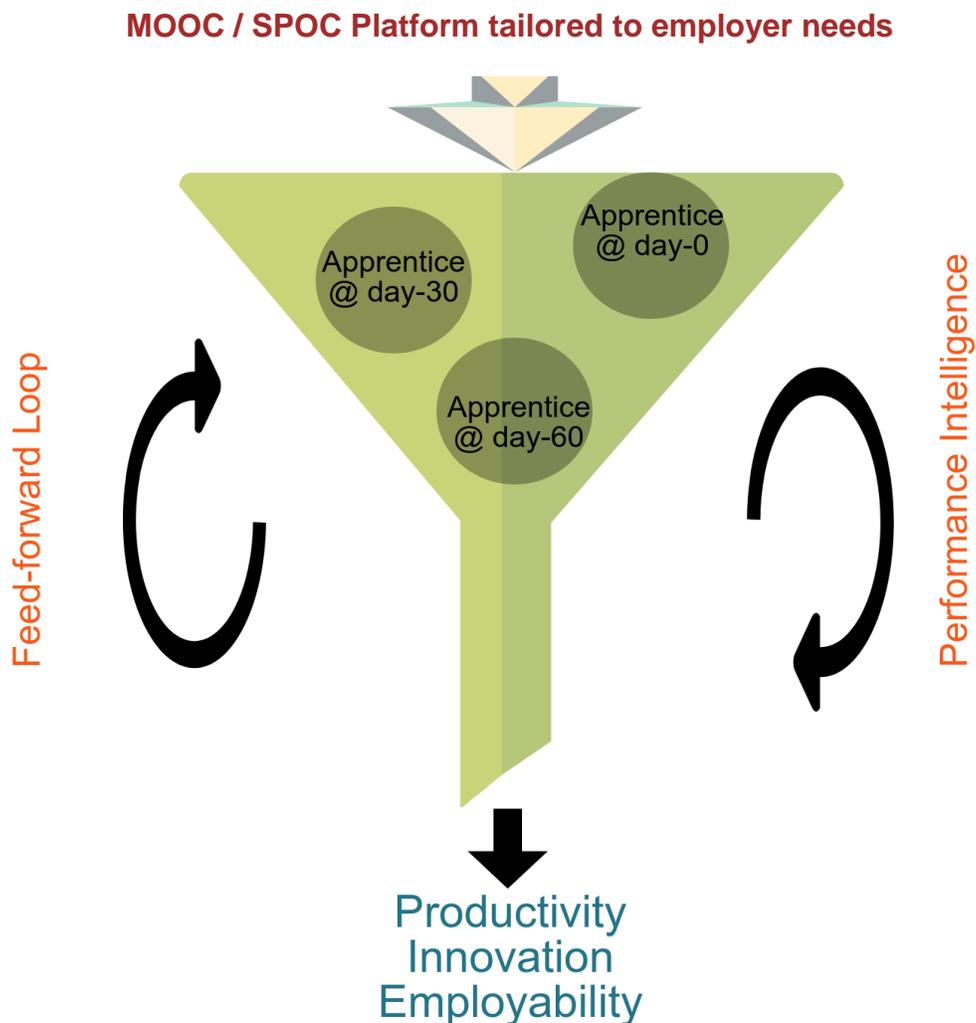
- The National Scheme of Apprenticeship Training is implemented through four Regional Boards of Apprenticeship/Practical (BOATs/BOPT) at Mumbai, Kanpur, Chennai & Kolkata.
- Provides opportunities for practical training to graduate engineers, diploma holders (Technicians) and 10+2 Vocational pass outs in about 10,000 industrial establishments.
- The four Regional BOATs/BOPT which are fully funded autonomous organizations of MHRD have been entrusted with the responsibility to implement the Scheme of Apprenticeship Training under Apprentices Act, 1961 as amended from time to time in their respective regions.

PRIVATE – PUBLIC INITIATIVES

- is a public-private Partnership of TeamLease Skills University, CII, and NSDC under the National Employability Enhancement Mission of the Ministry of HRD (AICTE).
- proposes to appoint 2 lakh apprentices every year for the next 10 years. The plan is to enroll two lakh apprentices annually into real-time training at the workplace, with an assurance of gaining a recognized skill certificate at the end of two years.
- A NETAP apprenticeship qualifies for credit towards certificates/diplomas/ degrees offered online by Teamlease Skills University (TLSU).



A Roadmap for a productive workforce



Businesses need to recognize the MOOC-Apprenticeship opportunity for the transformational force it is, and invest in building an agile, virtuous, learning infrastructure. We propose a rudimentary framework for one such below.

- The MOOC / SPOC platform serves as the knowledge hub for 'mutual continuous learning'.
- Performance Intelligence from the platform guides outcomes in an agile environment.
- A feed-forward loop aids regenerative capabilities to be built into the organization