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Gender Disparity in Skill & Entrepreneurship in India

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Abstract
Education and Entrepreneurial Growth in India are deeply interconnected and together form a critical foundation for the country's socio-economic development. In this context the objective of the paper is to analyse the role of education and skill building in entrepreneurial growth in India. As rapidly growing economy with vast youth population, India presents a fertile ground for entrepreneurial development. The development of relevant skills, particularly entrepreneurial skills, is crucial for achieving this goal. Education plays a key role in shaping individuals' entrepreneurial aspirations and paths. In India, institutions like the IIMs and various business schools significantly contribute to nurturing entrepreneurship among the youth. This Paper Examines the potential impact of educational frameworks on fostering entrepreneurship and cultivating a robust start-up ecosystem, hence enhancing skill acquisition, stimulating economic expansion, and facilitating job generation. This paper seeks to better understand the intricate correlation between skill enhancement and education in India and emphasis to enhance the discussion on achieving a skilled, educated, and economically strong India by identifying challenges, capitalizing on favourable circumstances, and proposing strategic actions. The secondary data were used to analyse role of Government and educational institutions to foster Entrepreneurship.
Key Words*: - Education, Entrepreneurship, Growth, Job creation, Skill*
JEL Code*: - L26, I 21, I23, J24*

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I. Introduction

Skill development in India has emerged as a key strategy to realize the potential of demographic advantage of having the youngest workforce with an average age of 29 years in comparison with the advanced economies to create human resource for improving country's competitiveness and growth. Economic growth is a reflection of jobs created and skills and knowledge are evident requirements for any job. Both developed and developing countries are focusing on skilling people and India is no different. Our aim is to become the future skill capital of the world and government is not leaving a single stone unturned. Being the youngest nation with more than 62% of its population in working age group of 15-59 years, and more than 54% of its total population below 25 years of age, it seems feasible. The National Skill Development Mission launched by the Government of India envisions skilling at scale with speed and standards with focus on strengthening Institutional Training, Infrastructure, Convergence, Training of Trainers, Overseas Employment, Sustainable Livelihoods and Leveraging Public Infrastructure. The skill development ecosystem in India is complex, large and diverse, providing varied levels of skills across an extremely heterogeneous population. India sits on an opportune moment in history, with a demographic dividend of 65% of her human resource pool under the age of 35 with about 12 million individuals expected to join the workforce every year. Qualified and skilled human resources are most important propellant for economic advancement of our nation. Skill development in India can be broadly segmented into Education and Vocational Training. Skills in India are acquired through both formal and informal channels. Formal vocational training is imparted in both public and private sector.

The Government has listed skill development as one of its priorities and aims to enhance participation of youth, seek greater inclusion of women, disabled and other disadvantaged sections into the workforce, and improve the capability of the present system, making it flexible to adapt to technological changes and demands emanating from the labour market. Currently, skill development efforts in India are spread across approximately 20 separate ministries, 35 State Governments and Union Territories and the private sector. A Ministry of Skills Development, Entrepreneurship, Youth and Sports was created. The Ministry has been entrusted with the coordination of all stakeholders during the evolution of an appropriate skills development framework, removal of disconnect between demand and supply of skilled manpower, skills upgradation, building new skills, innovative thinking and assuring availability of talents. In this context the objective of the paper is to analyse employment and skill development initiatives in India. The study is based on secondary data collected from various reports and papers.

II. Literature Review

Some impact evaluations suggest that while training programs improve confidence and technical skills, they have limited success in improving long-term employment outcomes (Khandker et al., 2019). Entrepreneurship support programs have shown better results when paired with mentoring and seed funding (Desai et al., 2018). Several scholars and policymakers emphasize that skill development is essential to harness India's demographic dividend (FICCI, 2018; NSDC, 2020). According to Agarwal et al. (2017), India needs to skill over 400 million people by 2025 to meet domestic and global labor market demands. According to Basu and Goswami (2019), the rise in startups and self-employment among youth can reduce dependence on public and formal sector jobs. However, lack of access to capital, mentorship, and risk-averse culture are barriers to entrepreneurial growth. Universities and colleges have begun integrating skill development into their curriculum. However, as noted by Sharma (2021), there is still a gap in fostering entrepreneurial thinking and offering practical business skills in higher education. There is a persistent gap between academic curricula and industry requirements (Agarwal, 2017), which leads to a disconnect between education and employability.

Research Gap

1. Limited Integration between Education, Skill Development, and Entrepreneurship that need more attention.
2. Lack of Empirical Evidence on Educational Frameworks' Impact needs more focus.

Research Objectives

1. To analyse the role of education and skill building in entrepreneurial growth in India.
2. To examine the potential impact of educational frameworks on fostering entrepreneurship in India.

Hypotheses

1. The construction and real estate sector require more human resource than other sectors.
2. Private sector has relatively more female employees than public sector.
3. Industrially developed state has more hiring activities than other states in India.

III. Methodology

This study is based on secondary data, collected from ministry of skill development GOI and various websites like www.data.Gov.in, Ministry of Skill Development & Entrepreneurship, India Skill Report,2018, UNDP, Wheebox employability skill test, India Skill Report, 2018. The analysis is based on descriptive statistics, Percentage, Ratio etc.

Analysis & Interpretations

Skills and knowledge are driving forces of economic growth and social development for any country. The conceptual framework of Skill Indicator includes focus on contextual factors such as GDP, population, access to internet, employment in informal sector; factors affecting skill acquisition such as educational attainment, literacy rate, enrolment ratios, vocational programme, participation in apprentices and training; factors affecting skill requirement such as employment share by level of education, occupation, incidence of self-employment, skill use and outcomes in terms of growth in GDP, labour productivity, employment rate, earnings etc. The indicators would also help in measuring the outcomes of various interventions and to institutionalize a focus on improving outcomes (Access, Equity, Quality, Relevance and Finance) in India. The indicators would also facilitate sharing of best practices across different sectors and States/UTs. It would help in assessing the match between employers' needs and future labour market opportunities. Based on the assessment of existing policy initiatives and their outcomes, the future course of policy action can be planned or modified. The indicators have been classified under broad parameters of Access, Equity, Quality, Relevance and Finance. The parameter of access would measure the capacity and outreach of the Programmes.
programmes.

Unemployment Rate and Human Resource Requirement in India

India has the second largest population in the world and educated unemployment is significantly increasing over time. The unemployment rate is calculated as number of unemployed individuals divided by the number of individuals currently in the work force. The unemployment rate varies across the states. Table-1 provides the state-wise unemployment rate in the country.

Table-1 Unemployment Rate in Different States in India

State	UnemRate	State	Unem Rate	State	UnemRate	State	Unem Rate
Andhra Pradesh	21	Haryana	28	Manipur	36	Tamil Nadu	22
Arunachal Pradesh	21	Himachal Pradesh	13	Meghalaya	7	Tripura	128
Assam	47	Jammu & Kashmir	35	Mizoram	31	Uttarakhand	32

Bihar	35	Jharkhand	25	Nagaland	178	Uttar Pradesh	15
Chhattisgarh	15	Karnataka	16	Odisha	24	West Bengal	32
Delhi	37	Kerala	67	Punjab	22	A & N Islands	65
Goa	48	Madhya Pradesh	10	Rajasthan	12	Puducherry	22
Gujarat	5	Maharashtra	14	Sikkim	11	All-India	23

Source- Data.Gov.In

Nagaland has the highest unemployment rate followed by Tripura, Kerala, A & N Islands, Goa where as it is 23 for India. It is evident that unemployment rate is still very high in India. As India strengthens its base as a knowledge economy, there would be additional requirements to the highly skilled workforce in different sectors. The human resource requirement across sectors in India is given in table – 2.

Table - 2 Incremental Human Resource Requirement across Sectors by 2022

S.No	Sector	Employment in 2017 (million)	employment by 2022 (million)	Incremental requirement from 2017-2022 (million)
1	Auto and Auto Components	10.98	14.88	3.9
2	Beauty and Wellness	4.21	14.27	10.06
3	Food Processing	6.98	11.38	4.4
4	Media and Entertainment	0.4	1.3	0.9
5	Handlooms and Handicrafts	11.65	17.79	6.14
6	Leather and Leather Goods	3.09	6.81	3.72
7	Domestic Help	6.00	10.88	4.88
8	Gems & Jewellery	4.64	8.23	3.59
9	Telecommunication	2.08	4.16	2.08
10	Tourism, Hospitality and Travel	6.96	13.44	6.48
11	Furniture and furnishing	4.11	11.29	7.18
12	Building, Construction and Real Estate	45.42	76.55	31.13
13	IT and ITES	2.96	5.12	2.16
14	Construction Material and Building Hardware	8.3	11	2.7
15	Textile and Clothing	15.23	21.54	6.31
16	Healthcare	3.59	7.39	3.8
17	Security	7.00	11.83	4.83
18	Agriculture	240.4	215.6	-24.8
19	Education/ skill development	13.02	17.31	4.29
20	Transportation and Logistics	16.74	28.4	11.66
21	Electronic and IT Hardware	4.33	8.94	4.61
22	Pharma and Life Sciences	1.86	3.58	1.72
23	BFSI	2.55	4.25	1.7
24	Retail	38.6	55.95	17.35
	Total	461.1	581.89	120.79
	Removal of Duplication in Retail Sector	(10.37)	(21.43)	(11.06)
	Total Requirement	450.73	560.46	109.73

Source: Ministry of Skill Development & Entrepreneurship

Table-2 reveals that agriculture employs largest workforce i.e 240.4 million but projected employment in 2012 will be reduced. Construction sector also requires more employable skill in future. Other detail can be found from above table.

Internship and Skill

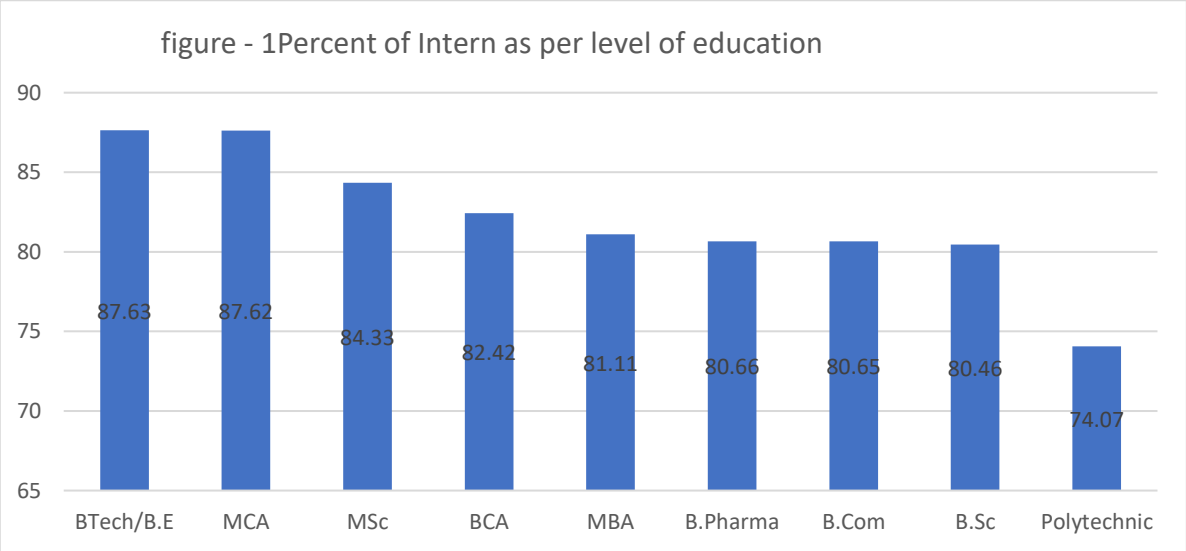
Internship is an opportunity for both employer and candidate to assess each other before getting into an actual employee-employer agreement. Being an employer, corporates have an opportunity to test the skills, train the intern and assess before making him/her a full-time employment offer. On the other hand, candidates also have an opportunity to get sense of corporate environment, work culture, assessment of skills and gaps without worrying about the full-time employment. This is a win-win situation for both parties, but here the road block is

that the number of internship opportunity seekers are high and opportunities are handful hence majority of students are left out from this learning opportunity. Education wise preference for internship is given in table-3.

Table-3 Education wise preference for internship

Level of Education	Percent of Intern
BTech/B. E	87.63
MCA	87.62
MSc	84.33
BCA	82.42
MBA	81.11
B. Pharma	80.66
B. Com	80.65
B.Sc.	80.46
Polytechnic	74.07
Mean	82.11
Range	13.56

Source- India Skill Report,2018, UNDP



Interns are more preferred in B.tech/BE and MCA which are 87.63 and 87.62 percent respectively. Interns with polytechnic education has preference only 74.07 percent. India should encourage internship more through skill development initiatives.

Skill and Workforce gender diversity

Indian Government and corporates are trying hard to get women such as increase in maternity leave, flexi work hours for women, working women hostels, making crèche facility mandatory for employers employing 50 employees. Despite these initiatives, our study shows that working women population has significantly decreased over the last year. A lot of sectors such as Retail, Banking and Financial services etc. have shown improvement in their sector specific diversity ratio while others have pulled the overall ratio down. Table-4 shows that percent of male employment has increased from 68 % in 2016 to 71 % in 2017 and 77 % in 2018. It is observed that 77 percent are male whereas only 23 percent are female in 2018 in employment in public sectors in India. Female ratio is coming down due to increased participation of PSUs. So, gender disparity is very high in India in employment.

Table-4 Gender wise percentage of employment in PSUs in India

Gender	2016	2017	2018
Male	68%	71%	77%
Female	32%	29%	23%

Gender Difference	36 %	42 %	54 %

Source- India Skill Report, 2018 & Authors Own calculation

Diversity at places: Public vs. Private

Women the number of women workers in Indian workforce is dipping continuously over the last three-years as depicted by the gender diversity ratio. Women workforce numbers have come down from 32% in 2016 to 23% in 2018. Employability of female students has also dropped this year as compared to last year. In 2017, female employability was 41% as compared to current year's 40%. In 2018, PSU participation was comparatively high and due to less female workforce in PSU, gender diversity ratio was pulled down. If we exclude PSU gender diversity numbers from overall ration it bounces back close to last year's number. Still if we consider 27% gender diversity ratio for this year and keep aside all factors that may have impacted; this drop of 5% in the last two years is a big challenge for Indian corporates. This raises concern on all the efforts and initiatives taken by Government and corporates to bring more women on board as these don't seem to make any difference in women worker's life or helping new women employees to join the corporates. Women employment at senior management role is harrowing as India ranks second lowest in terms of women employees at senior management levels. Table-6 presents gender disparity in Public and private companies in India.

Table-6 Gender disparity in companies in India

Company Type	Male	Female	Gender Disparity
Public Companies	92%	08%	88%
Private Companies	76%	24%	52%
Multinational Companies	76%	24%	52%
Others	68%	32%	36%
Mean	0.78	0.22	0.57
Kurtosis	2.23	2.23	2.43
Skewness	1.13	-1.13	1.27
Range	0.24	0.24	0.52

Source- India Skill report, 2018 & Authors own calculation

Private companies are better in female employment which is 24 percent than public sector companies in India. Multinational companies have similar gender ratio with private companies.

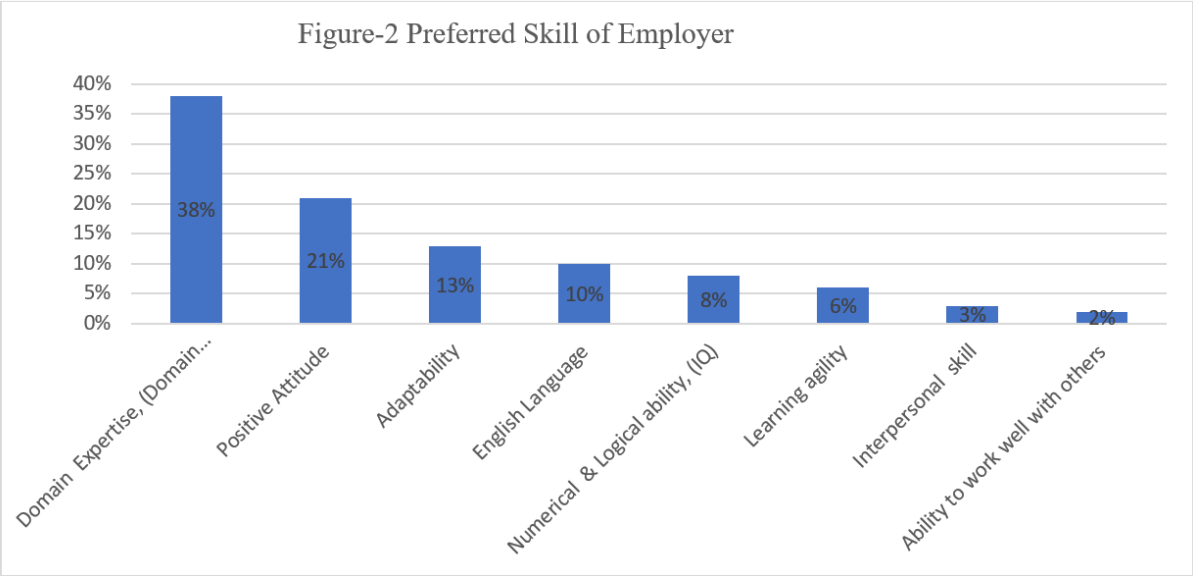
Employability and Skill in India

Skill is directly linked with employment in India. The skill development ecosystem in India is skewed towards a formal education system with limited vocational training. While the vocational training is in a dismal state both qualitatively and quantitatively, the higher education system itself is grappling with issues related to scale and quality. The employers prefer different kind of skill with people at the time of recruitment. The percentage preference of skill is given in table-7.

Table-7 Preferred Skill of Employer

Skill	Percent
Domain Expertise, (Domain Understanding)	38%
Positive Attitude	21%
Adaptability	13%
English Language	10%
Numerical & Logical ability, (IQ)	8%
Learning agility	6%
Interpersonal skill	3%
Ability to work well with others	**2%**

Source- India Skill Report, 2018



Domain knowledge gets weightage of 38 % as preferred skill followed by positive attitude with 21 percent. Adoptability and English communication are also important preferred skills at the time of employment. Three most preferred sourcing channels are shown in table-8 for employability.

Table-8 Three Most Preferred Sourcing Channel

Job Portals	24%
Internal referral	24%
Consultants	20%

An interesting result of employability test conducted by wheebox are given in table-9. It is interesting to note that for B.tech and polytechnic education, male have higher skill than female but in B.Sc, B.Com and B.A education female have more employability skill than male.

Table-9 Employability skill test

Level of Education	Male	Female	Gender disparity
B.Tech/B.E	63.35	36.65	26.7
Polytechnic	81.16	18.84	62.32
MCA	45.72	54.28	-8.56
MBA	53.35	46.65	6.7
B.Sc	35.25	64.75	-29.5
B.Com	36.8	63.2	-26.4
ITI	70.04	29.96	40.08
BBA	56.45	43.55	12.9
B.Pharma	51.29	48.71	2.58
B.A	40.36	59.64	-18.28

Source - Wheebox employability skill test, India Skill Report, 2018 & author's own calculation

For ITI and BBA education, males have higher employability skill than female.

The state wise hiring activity percent given in table-11 reveals that

Table-11 States with hiring activity in Percentage

States	Hiring (%)	States	Hiring (%)
Maharashtra	16.51	Punjab	2.20
Delhi	13.58	Kerala	1.74
Tamil Nadu	10.58	Uttarakhand	1.58
Karnataka	10.51	Odisha	1.57
Uttar Pradesh	9.40	Jharkhand	1.19
Haryana	6.74	Himachal Pradesh	1.09
Gujarat	3.76	Andaman Nicobar	0.89
Andhra Pradesh	3.31	Assam	0.88
West Bengal	3.12	Chandigarh	0.61
Rajasthan	2.81	Pondicherry	0.28
Bihar	2.75	Goa	0.19
Telangana	2.24	Chhattisgarh	0.14
Madhya Pradesh	2.22		

Source – India Skill Report, 2018

Maharashtra is the business capital with Mumbai having 16.51 percent hiring activity followed by Delhi, Tamil Nadu and Karnataka. The less developed states have less hiring percent such as Chhattisgarh with 0.14 percent only.

Skill Development Challenges in India

Several factors have inhibited the skill development eco-system in India to scale up to the desired levels. The skill development system in India is plagued with multiple issues related to awareness, perception, cost, quality and scale. Alongside the daunting challenge of skilling millions of youth entering workforce each month, India also faces a huge challenge of evolving a skill development system that can equip the workforce adequately to meet the requirements of the industry. Important challenges for skill enhancement are as follows.

(i)Limited Capacity

The existing infrastructure, both physical and human, is grossly inadequate considering the projected demand for skilled labour. While there is a need to create additional capacity in existing institutes, at the same time there is a need to create an adequate infrastructure even in small towns and villages. In terms of faculty, too, the training infrastructure is inadequate. For instance, corresponding to the current seating capacity of about 1.7 million trainees at ITIs, there is a need of almost 85,000 trainers (considering 20:1 student/faculty ratio).

(ii) **Awareness, mindset and perception issues**

Skill development in India is way below the requirements due to a lack of awareness on the type of courses as well as information on the ensuing career prospects. There is limited acceptance of skill development courses as a viable alternative to formal education. Skilling is often viewed as the last resort meant for those who have not been able to progress in the formal academic system. This is partly to do with the lack of integration between the two options and also due to rising aspirations for white collar jobs which necessitate higher qualifications.

(ii) **Cost concerns**

Skill development initiatives in India continue to be largely dependent upon the government funds or public-private ventures. Owing to high capital requirements and low return on investments, skill development is often looked at as a non-scalable model and remains underinvested. Additionally, a fee-based model also faces challenges as prospective students are often unwilling or unable to pay high fees for training.

(iii) **Quality concerns**

There is a serious mismatch between the industry's requirements and the skills imparted in educational and training institutes, especially for the mid-level skills requiring some expertise on handling of machinery. To tackle this problem, considerable improvement of the quality of training is needed. The issue relates to the quality of infrastructure, trainers, as well as curricula and pedagogy. In terms of infrastructure, the institutes often lack appropriate machinery to give students hands-on training. Even the course curricula often are outdated, redundant and non- standardised.

(iv) **Mobility concerns**

In India, educational qualification is generally preferred over vocational training as former is associated with better employment opportunities, in terms of pay as well as quality of work. Additionally, there is limited mobility between formal education and vocational training in India due to lack of equivalent recognition for the latter; a

student enrolled in vocational training often cannot migrate to institutes of higher education due to eligibility restrictions.

Validity of hypothesis

Three hypotheses are found to be valid based on available data**,**

I. The hypothesis one validated and accepted based on the analysis of table no 2.
II. Hypothesis two validated and accepted based on the analysis of table no 6.
III. Hypothesis three validated and accepted based on the analysis of table no 11.

Major findings, Suggestions & Conclusion

India has a demographic dividend. A skilled workforce is crucial in taking the country forward. Skill is essential to increase employability in India. Skill development is critical for economic growth and social development. Employability score in India has touched a new high of 45.60 percent. Hiring intent for Year 2018 is positive with an increase of 10-15 as compared to 2017. About 69 percent of India Hiring Intent Survey respondents agree to the impact of automation on jobs in future. Nearly 24 percent employers indicate that analytics is emerging as the future job area and 15 percent foresee artificial intelligence as future job area. To enable employment ready workforce in the future, the youth need to be equipped with necessary skills and education in India. The siloed functioning of education, skilling, and entrepreneurship domains must give way to an integrated policy and institutional framework. Industry-academia collaboration, blended learning models, and grassroots innovation need to be central pillars of reform. The future of India's growth lies in transforming its youth into not only job-seekers but also job-creators, backed by inclusive, quality education and a robust entrepreneurial ecosystem. Suggestions for Skill Improvement to Boost Entrepreneurship Growth in India, Promote experiential learning through case studies, simulations, and live projects, Encourage dual education models (classroom + on-the-job training), Support state-level incubation centers and innovation hubs, especially in rural and semi-urban areas, foster peer learning networks through entrepreneur clubs, hackathons, and startup festivals, Conduct confidence-building workshops and public speaking exercises to overcome social and cultural barriers,Facilitate internships and apprenticeships with startups and MSMEs,Encourage corporate social responsibility (CSR) investments in skilling rural entrepreneurs.

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