International Journal of Research in Engineering and Science (IJRES)

ISSN (Online): 2320-9364, ISSN (Print): 2320-9356 www.ijres.org Volume 9 Issue 7 | 2021 | PP. 60-65

Analysis of Job-Readiness Skills of Students in India

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ABSTRACT

India is referred to as one of the youngest nations in the world. About 35% of the population is the youth – people aged between 15 and 24 -and it has the largest youth population in the world. The working population is more than approximately 588 million. Therefore, it becomes imperative for us to harness this massive amount of energy and potential, and drive India towards growth and glory. This paper aims to discuss the most important and popular skills that are demanded by employers and the job-readiness of Indian students. Upskilling and reskilling are two of the most important things to keep in mind while training students. Special emphasis on hard skills, soft skills and job requirements has also been discussed. With respect to a graph used here, I worked as a Data Analyst and interviewed about 100 high school and undergraduate students. I asked the students about their field of interest and internship experience. Based on those, I have compiled my findings and insights in this paper and also represented them graphically.

Date of Submission: 06-07-2021 Date of acceptance: 20-07-2021

I. INTRODUCTION

The most profitable resource a business can use is not land, labor or capital. It is indeed the 'human resources', or an important factor of production called 'entrepreneurship'. Human resources, simply put, can be defined as the knowledge and the skill that the employees of a company bring to their workplace every day, and the potential advantages of the same. Entrepreneurship is the setting up, building and growing of a business by taking risks.

The National Skill Development Corporation (NSDC), established by the Ministry of Finance, operates under the Public Private Partnership model. The purpose of the NSDC is to assist employees in up-skilling, and creating ultra-low cost, high quality, innovative business models. They also provide funding to different businesses, and aim to be the 'market-maker'. They already have several programs in progress like the PMKVY, PMKK and TITP.

MPORTANT SKILLS TO KNOW

- Leadership and Management Skills, Social influence 1.
- 2. Problem solving skills and innovation
- 3. Critical thinking and analysis skills
- 4. communication skills
- 5. teamwork and collaboration
- 6. digitizing skills, technology using skills

WHY **INDIA NEEDS SKILL** DEVELOPMENT

- India has the maximum potential as a country to be a booking market place for all industries
- 2. Potential for creative lucrative job opportunities and remunerative businesses
- Upskilling students to help them find jobs and growth opportunities
- **Employing** the millions of unemployed people in the country

INCREASING AND **DEMAND JOBS**

DECREASING

Emerging and redundant job roles

Role identified as being in high demand or increasingly redundant within their organization, ordered by frequency

MERGING	
1.	Al and Machine Learning Specialists
2.	Data Analysts and Scientists
3.	Information Security Analysts
4.	Internet of Things Specialists
5.	Big Data Specialists
6.	Project Managers
7.	FinTech Engineers
8.	Digital Marketing and Strategy Specialists
9.	Software and Applications Developers
10.	Business Development Professionals

REDUNDA	er e
1.	Administrative and Executive Secretaries
2.	General and Operations Managers
3.	Assembly and Factory Workers
4.	Accounting, Bookkeeping and Payroll Clerks
5.	Data Entry Clerks
6.	Accountants and Auditors
7.	Architects and Surveyors
8.	Human Resources Specialists
9.	Client Information and Customer Service Workers
10.	Business Services and Administration Managers

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Increasing job demands:

- 1. Data Analysts and scientists
- 2. AI and Machine Learning specialists
- 3. Big Data specialists
- 4. Digital marketing specialists
- 5. Process automation specialists
- 6. Business development specialists
- 7. information security specialists
- 8. Internet of Things specialist
- 9. Software and App developers
- 10. Risk management specialists

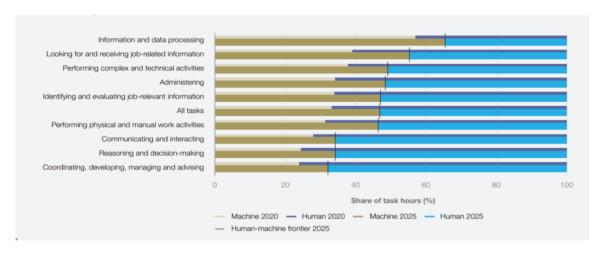
Decreasing job demands:

- 1. Data entry clerks
- 2. executive secretaries
- 3. accountants and auditors
- 4. assembly and factory workers
- 5. Customer service
- 6. door to door salesmen
- 7. material recording clerks
- 8. book keeping and payroll clerks
- 9. bank tellers and related clerks
- 10. construction laborers

Inference:

It is easily understood from the above data that there will be a tremendous demand for jobs related to data analysis, software development and business management fields. Therefore, it is essential that students develop the necessary technical skills in these fields. Since everything is digitizing, students should be very comfortable with handling everything online, and optimize their results.

It is estimated that 40% of current workers' core skills are expected to change in the next 5 years.



On the other hand, there is a significant reduction in the demand of offline jobs like accounting clerks, factory workers and data entry workers. This is because all of these jobs can now easily be done via online software and machinery. Entering and recording data, and managing the finances can easily be managed by software and requires minimum human intervention. Likewise, factory workers have been replaced by massive machinery, which is more productive and cost effective.

RESEARCH FINDINGS

I worked as a Data Analyst and interviewed about 100 high school and undergraduate students. I asked the

Emerging skills

Skills identified as being in high demand within their organization, ordered by frequency

1.	Analytical thinking and innovation
2.	Complex problem-solving
3.	Active learning and learning strategies
4.	Critical thinking and analysis
5.	Resilience, stress tolerance and flexibility
6.	Technology design and programming
7.	Emotional intelligence
8.	Creativity, originality and initiative
9.	Leadership and social influence
10.	Reasoning, problem-solving and ideation
11.	Technology use, monitoring and control
12.	Service orientation
13.	Troubleshooting and user experience
14.	Systems analysis and evaluation
15.	Persuasion and negotiation

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students about their field of interest and internship experience. Based on those, I have compiled my findings and insights in this paper.

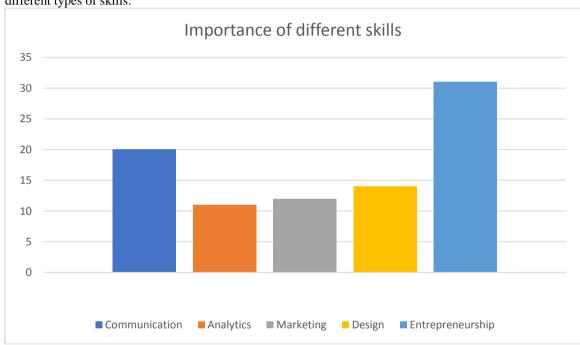
SKILLS OBSERVED IN HIGH SCHOOL STUDENTS

- 1. Communication
- 2. writing
- 3. social media marketing

FIELD OF DEMONSTRATED INTEREST IN HIGH SCHOOL STUDENTS

- 1. Finance
- 2. Business strategy
- 3. designing
- 4. communications
- 5. data analytics
- 6. writing
- 7. entrepreneurship
- 8. social media marketing

This is a chart depicting in the student's preference of the most important skill one must have among a set of different types of skills:



SKILL GAP AND EXPERIENCE GAP

Skill gap is the perceived difference between the current capability of the employees and the expectations of the employers for the organization. It is sometimes referred to as the compensation gap because the employers are not willing to pay adequately for the high level ofskill, they wish to bring in. Otherwise, it is also known as the training gap, because the employers do not provide the necessary training to their employees, which is why the employees lack in skill.

This has serious negative implications. If the employees aren't skilled enough, or not even motivated enough to upskill, it can decrease the productivity and quality of work. This can ultimately cause the downfall of the company.

DEFINING SKILLS:

1 Soft skills

Soft skills are those skills that can't be easily quantified or measured. These are the kind of core skills desirable in every job.

a. Interpersonal skills

Interpersonal skills are the skills allowing us to communicate well with others (our peers, friends, colleagues, seniors, juniors). It is very important for one to build positive relationships with one-another and interact

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effectively with everyone. Having good interpersonal skills includes being cooperative, team player, active listener, understanding, mature, collaborative and confident.

Having good interpersonal skills directly translates to being an effective leader. It is shown that most, if not all, CEOs and other higher management level position holders possess strong interpersonal skills.

Communication skills

Communication skills are about the abilities required and used to communicate with others. This includes being able to express your thoughts, ideas and opinions with an individual or group clearly and confidently. There are 3 main types of communication skills: Written, Verbal and Non-verbal (body language). Strong communication skills are directly reflected in strong and influential leaders. Being able to convince others of your point of view and influence other's mindset is extremely beneficial.

c. Critical thinking and Problem-solving skills

Critical thinking skills are the skills or ability of an individual used to think creatively and analyze data. Problem solving skills are basically the abilities to solve problems innovatively using all the facts and figures available.

Both of these skills go hand in hand, and prove to be immensely useful to all. They are especially noticeable in leaders. Being able to use the best of your judgement to make good decisions is a real must-have skill.

2. Hard skills

a. Technical skills (technology)

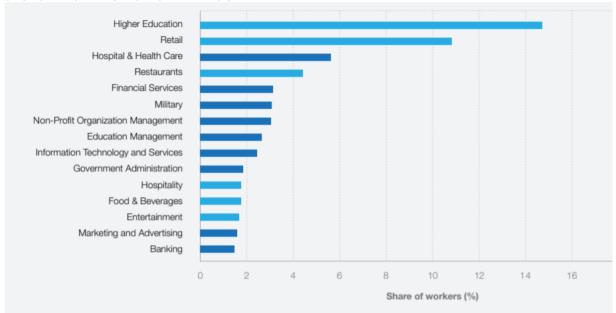
Technical skills are quantifiable skills that can be learned and measured easily through training and education. Skills like coding, designing, writing, analytics, etc. are technical hard skills. Most jobs also require a good level of education and hard skills as a prerequisite.

Keeping in mind the most popular future jobs, the following are some of the most in demand technical skills to have:

- b. coding skills
- c. software development
- d. data analytics
- e. business analytics
- f. Artificial intelligence and machine learning
- g. marketing (social media marketing)
- h. presentation skills

Technology adoption Share of companies surveyed Cloud computing 98% Encryption and cyber security 95% Internet of things and connected devices 90% Big data analytics 88% Text, image and voice processing 88% Artificial intelligence (e.g. machine learning, neural networks, NLP) Robots, non-humanoid (industrial automation, drones, etc.) Distributed ledger technology (e.g. blockchain) 75% E-commerce and digital trade 73% Power storage and generation 64%

SECTOR DISTRIBUTION OF THE YOUTH



RESPONSE TO SHIFTING SKILL NEEDS

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Responses to shifting skill needs

Share of companies surveyed

Expect existing employees to pick up skills on the job

Retrain existing employees

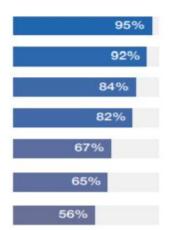
Hire new permanent staff with skills relevant to new technologies

Look to automate the work

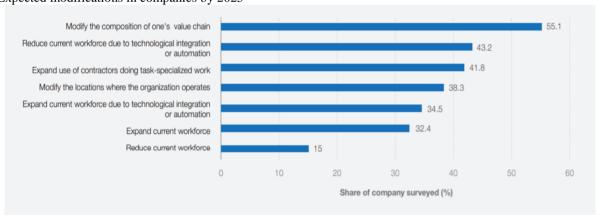
Hire new temporary staff with skills relevant to new technologies

Outsource some business functions to external contractors

Hire freelancers with skills relevant to new technologies



Expected modifications in companies by 2025

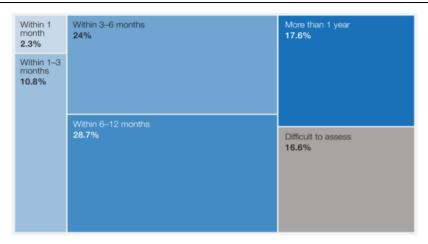


INVESTMENT IN UPKILLING EMPLOYEES

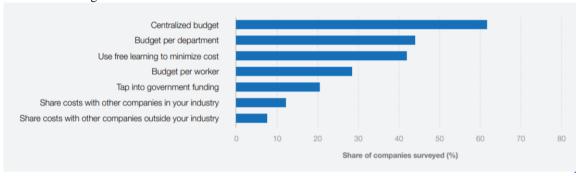
Now that we understand what is the importance and need for upskilling, there's a couple more things to know:

1. Estimated return on investment

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2. Source of funding



II. CONCLUSION

As mentioned before, the most profitable resource to optimize one's business is actually the human resource. The skill and the knowledge that the employees bring in. India has a huge advantage in this respect. India has massive potential for a booming market place, but at the same time, it also stands to lose a lot if this resource is not used wisely, strategically and economically. There are lots of dangers to this like brain drain and unemployment. Upskilling is the future, and we need to start relearning and re-educating ourselves in this field to still be able to compete with the world. And so, it becomes crucial for us to harness that energy resource for the greater good of the country.

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