

Endowing Engineering Graduates: With Special Reference to Soft Skills as Vital Employability Skill

Dr. Trupti Patil¹, Dr. Prashant Pawar², Dr. Suma Sreedhar³, Dr. Vinayak Shinde⁴

^{1,2,3}Assistant Professor, Department of Applied Sciences and Humanities, VIVA Institute of Technology

⁴Associate Professor, Department of Computer Engineering, L.R.Tiwari College of Engineering

Abstract- An increasing demand for manpower is there in the world of IT to meet the challenges and problems of globalization. Young Engineers are the major contributors and shapers to GDP of every countries economy. Industrialists understood that the core component of success is trained and skillful engineers. Now-a-days technical competencies are not sufficient. Engineers should excel in soft skills as well. The paradoxical situation is that recruiters still continue to complain that there are no adequate numbers of skilled engineers. The companies find that today's engineers are lacking in communication and soft skills which are essential for the jobs. In this perspective, the present research paper made an attempt to probe into the problem and discusses how the amalgamation of soft skills along with hard skills safeguard engineering students in the job market and meet to the high hopes of the employers.

Key Words- Skills, Employability, Soft Skills, Hard Skills

I. INTRODUCTION

1.1 Current Scenario Of India And Employability

With the emergence of globalization, India as a fast developing nation witnesses tremendous growth and prospect in the sectors like business, management, finance, retail industry, insurance etc. The ensuing competition has fetched in a new standard of business. As a result of growth and development in the trade and industry, changes in the economy and with the advent of new technology, employment patterns and prospects of the industry are highly changed. After 1992, due to the Globalization and Privatization, several multinational companies have set up their services in India and many other are planning for expansion of their global operations. Thus, creates a great challenge to set up a favorable milieu for progressing economy of the country.

Tremendous employment opportunities and growing competition have amplified pressure on companies. Thus just the technical skills and certificates are of no use for candidates for high salary jobs. There has been a tremendous shift in the requirements of the corporate sector. Employers are keen on recruiting those candidates who can manage effectively not just to oneself but to others like customers, peers, subordinates, and superiors. An ideal candidate is one who will understand business vision and goals and able to use other people around him effectively. There lies a key of success as rightly said by Theodore Roosevelt that a real skill is to get along with people. The multinational companies look for the lifelong learner who will combine management skills, logical thinking and interpersonal proficiency in the domain of technology. A candidate good in technical skills need to be good enough equally in communication, ethics and etiquettes of business, presentations skills, netiquettes, managing conflicts, managing time, self- awareness and in handling customers across the world.

The need of the hour is to make the students employable and for that, they must have mastery over the soft skills as well as over the technical skills to become a hot cake in the job market. To outshine in the workplace technical or hard skills are the must but they are not solely sufficient. In the globalized world, survival of the fittest is the norm and this put an increased amount of pressure on the companies. Recognizing this fact more and more companies have understood that along with the technical proficiency, their employees must be equally good in self-management, leadership, dealing with other people and handling and influencing them smartly in other words employees should gain mastery in the interpersonal skills. It is the interpersonal skills of the employees which decide their ability to convey and motivate the people who belong to the diverse cultural environment. All these constitute to illustrate the importance of communication skills and soft skills in the corporate sector.

With the boom of soft skills, the service sectors of Indian economy highly demand communication skills and other interpersonal skills like teamwork, self-management, leadership, and creativity are of great demand. Since the soft skills and the ability to communicate efficiently directly affects the individual performance of the employee at the same time these skills enable an organization to face and survive in the tough competition of the world market. Organizations mainly the service sectors are completely customer oriented. Therefore to deal with the people, to attract and retain the clients, professional executives highly trust communication and soft skills to achieve the target. Soft skills are of utmost important to succeed professionally. In the age of globalization, privatization and of the internet these skills help an individual to excel or succeed in the workplace. Soft skills are nothing but the ability of an individual to deal with one's own feelings at the same time understanding the feelings of others. Thus it is a personal mannerism which enriches communicative and interactive capability of an individual. Thus soft skill is basically a sociological concept which stands for an individual's Emotional Intelligence.

Today, the employers, managers or recruiters are still dying for recruiting employable candidates. For more than a decade companies are complaining that the fresh graduates are unemployable due to the absence of communication and soft skills. The schools and colleges are blaming parents to teach soft skills to the students and on the other hand, parents are blaming colleges and universities for not providing proper training to their children in the domain of communication and soft skills. As a result of this fight, the students are the real sufferers. Though today young graduates are competent academically but poor in communication, soft skills, and etiquettes. The skill or the ability to communicate and express opinions effectively is completely missing amongst young scholars.

II. ENGINEERS AND EMPLOYABILITY

In India, the biggest challenge for engineering education is to enhance the soft skills and other employability skills of the young engineering scholars and to make them employable or 'industry ready'. The field of engineering always proves to be the building pillar of the country. Therefore, many numbers of students has always get attracted towards engineering as a career. Increasing number of applicants giving entrance exam to be eligible and enroll themselves for the engineering branch. Through the four years of their course, they are taught or trained in a specific branch theoretically as well as practically. Thus they have the required technical background for the job market. However, just hard skills are not sufficient to make them employable. There lies the real essence of the success, that is mastery over communication and soft skills which are equally essential not optional to make them 'corporate ready'. Today, companies are deliberately investing more and more money on soft skills training since it is not properly included in the academic curriculum anywhere in the engineering education stream. Thus companies are taking initiatives to groom and develop the personality of their employees to improve their appearance and performance.

The report of National Knowledge Commission (NKC) and NASSCOM stated clearly the importance and need of improving the quality of education in India. Considering the fact that, there is a great urge to achieve competencies over the soft skills and communication skills from the employment point of view. In today's competitive world it is not wrong to say that soft skills and communication skills are not optional but they are compulsory as they regulate employees personal as well as professional credibility which automatically improves the results of the organization.

The communication skills and soft skills like, ethics and etiquettes of business, presentations skills, netiquettes, persistence, determination, intrinsic motivation, credibility as well as adaptability which are the basic essentials for sharpening the interpersonal relationships among various business entities and professionals and it is a need of today's professional life and this aspect of corporate life should not be ignored by the engineering experts and organizations. Thus, as a very natural, having enough amounts of communication skills and soft skills leads someone to manage ourselves as well as other humans more effectively. People find it is very hazardous to incorporate with various mentalities that are parts of an organization like seniors, associates, workers, clients, and consumers. Persons having full of Soft-skills can manage self and team as results of a great awareness of own personality features.

The present study is therefore very significant as it focusses on understanding the need and importance of soft skills as one of the important employability skills for improving the performance of young engineers in the corporate world.

2.1 Engineers and recruiters requirement

As the engineers of the 21st century, the global engineers need to possess certain traits or characteristics to face the challenges of the global world. They are mentioned below:

- Fundamental concept knowledge
- Critical and analytical skill
- Sense of innovation and creativity
- Good in interpersonal skills
- Strong communication skill
- Strong decision-making power
- Good team leader
- Flexibility

India has to play a very prominent role in finding out solutions to global problems faced by humanities today since it has a large number of young engineering population. Unfortunately, the Indian engineering pupils do not meet up to the essential requirements of the world job market. Every year more than 87% of the engineering students are churning out but resulted in the poor quality. Some of the reasons are-

- Lack of good quality teachers
- Unavailability of proper advanced infrastructure
- Weak quality of learners
- Lack of support to research and development
- Lack of qualitative training
- Lack of conversation with industries

There is an entire confound between the learning picked up by the engineering students and recent training in the field. Industry frequently discovers engineers feeble in proficient practice in this manner requiring long length at work preparing for making them professionally valuable. Prominence has moved from learning and obtaining aptitudes to passing the examination. This has brought about an overemphasis on hypothesis at the cost of training. An investigation has uncovered that 75% of the graduates of engineering are unemployable. This is a direct result of the poor execution of the vast majority of the self -financed private schools of engineering.

As the number of engineering colleges is increasing day by day, more numbers of graduates are coming into the market with their engineering degrees. Though they have eligibility of their educational degree but lacks suitability to gain the exact opportunity of employment. As per the survey conducted by Aspiring Minds, more than 360000 engineers get produced in India but only 25% of engineers are best suitable for the job.

According to the Board for ABET, the Accreditation Engineering and Technology (2012) the soft skills like conversational skills, problem-solving strategy, cooperation and flexibility skill, analytical technique are most important competencies that every employable engineer must possess.

2.2 Major Findings

The factors which are mainly responsible for engineers' employability are as follows-

- **Problem-solving ability**- the quality to understand the problem at grassroots level and search for the solutions is one of the basic factors which make an engineer employable.
- **Expense on training engineers**- It is another important factor where now a day's industries search for those candidates who are easily employable without providing them any special training. As it saves their money.

- **English conversation skill-** This skill is in high demand and essential criteria for engineers now days. Following are the major barriers which affect engineering education in the country-
- **Lack of up gradation in syllabus-** As the engineering course demand regular up gradation in syllabus to meet up the market demand. Unfortunately this important factor is being ignored by the engineering institutions.
- **Shortage of quality staff-** The problem which affects engineering education's quality is that lack of professional experts to train students. Though there are many numbers of technical institutions in India, the major problem is non-availability of quality staff to train the students in proper direction.
- **Less scope for creativity and research work-**In India the problem for non- employability lies in the fact that Indian education system gives less importance to motivate students for doing some innovative and research work which is actually a key to countries success. As the system of education is completely exam oriented teachers or in fact system of education and its curriculum doesn't give any scope for creative thinking and doing some research work. The curriculum just focusses on preparing students for the exam only.
- **Loopholes in education pattern-**The curriculum since it is divided into semester pattern just focus on evaluating students on their performance in the written exam only and hence ignores the important fact of learning that is continuous learning. Hence exam oriented evaluation doesn't always work for students hence they fails to fulfill the corporate demands.
- **Absence of skill oriented education system-**To cope up with the increasing demands of the industries there is an immediate need to make the curricula more skill oriented to provide more training and experience of the real world of the corporate. As due to lack of knowledge of basic concepts students lack in understanding the core problem which creates the skill gap between wants and supply of the corporate. Most of the engineering graduates suffer lack of jobs because throughout their four years of learning they get trained to focus only on syllabus, exam, marks and certificates. Hence when they actually go out and face the real world while searching for job they face with un-employability.
- **Lack of equal opportunity-** It is also observed that leading corporates while recruiting candidates through campus interviews prefer to visit those colleges who are there in the top list and are popular. Hence the students from the other colleges who are not that well known get ignored for job opportunities.
- **Leniency in the process of college approval-**As one of the root cause behind decreasing quality of engineering education lies in the fact that state government grant permission to new colleges with lot of leniency without checking their standards and set up.
- **Lack of command over English language skills-**Today corporates look for those candidates who are good or in fact excel in English conversation. As business is becoming global day by day employees while working in the corporate industries need to converse with their international consumers hence they need to be good in their English conversation skills. Most of the times even the good candidates face rejection just because they were unable to express their views during interviews.
- **Less importance to soft skills training-**The soft skills are now days precious in the job market but get unfortunately ignored by the educational institutions. Lack of conversation skill and other interpersonal skills unable the students to develop their proficiency in wholesome pattern.

Hence one thing is clear that today's engineering students are well acquainted with technical skills. They are good enough in handling different equipment, machineries and new technologies in sophisticated manner. As issue of un-employability is becoming worst day by day, today's engineers are unaware about how to sell themselves in the job market. It is great challenge in front of educational institutions to develop the employability of their students to attract more and more employers for campus recruitment. It is clear from the survey conducted that today's corporate are recruiters are more concern about employee's soft skills and their English conversation skills rather than their technical skill ability. Hence now is the time to pay more and more attention towards improving the soft skills of the engineers to make them employable in real sense.

2.3 Bridging the Gap and endowing Engineers Employability

The researcher mentioned some of the possible way out or the solutions to produce employable engineers.

- **Proper designing of engineering Curriculum:** It is very much important to that the curriculum should be relevant to the present requirements of the corporate world. Hence the technical institutions and universities must involve industries also to design syllabus of engineering. Employers or the industries involvement in all respects while framing the curricula is the best possible way out to overcome the problem of unemployability. The programs such as vocational training program and Entrepreneurship Development Program should be included in the curriculum.
- **Conversation between the Institutions and Employers/Recruiters:** A positive communication and partnership between Institutions and Industries can help a lot to bridge the breach.
- **Quality teachers:** As not proper numbers of good quality teachers in the educational institutions is another reason behind imparting good quality education. As the best of the engineering graduates get pick up by the MNC's and other small companies of engineering, the remaining crowd of engineering students then go for PhD hence best is not put for the education. So it is equally important for the institutions and universities to pay good packages to the engineering faculties to attract best towards engineering institutions to generate excellent pupils.
- **Support to research work and innovation:** To build visionaries in the market of placement it is very much essential to train students rightly by motivation them to be innovative. As the traditional system of Indian education do not allow students to question, our students completely lack skill to be innovative and creative. A proper space must be provided to learners from the school days only to think, to create, to question and to find out the solution on the problem.
- **Skill-based training:** To bridge the gap another important aid is to provide skill-based training to the engineering students to train them for the real world of the corporate. So to understand the real problem and real world of the corporate proper skill based training should be provided to them.
- **Proper communication training:** Today employers crave for those candidates who can speak English fluently and can manage to converse well with others. This is one another reason for the unemployment in India. Hence to improve the quality of engineering pupils proper training should be given to them to improve their English conversation skill.
- **Soft Skill training:** As soft skills proficiency is getting important day by day in the current job market, educational institutions need to pay more and more attention to train their students into them. Many of the fresh engineering graduates were unable to express their views properly during interviews which ultimately lead to rejection. So it is very much essential for training institutions to put some extra efforts to develop soft skills of students.
- **Establishment of placement cell:** It will be more beneficial if the engineering colleges put more efforts in proper functioning of placement cells through which proper training will be provided to pupils not just in interview preparation but also conducting their aptitude, Group Discussion and the interview. These efforts will certainly enhance the student's employability skills and improve their potentials.
- **Active participation from Industry side:** As it is very much essential for institutions of engineering to improve the standard of competencies, it is equally very much essential for industries also to actively participate and collaborate with the educational institutions in up gradation of curriculum, in syllabus framing process, guest lecture talks and forming or engineering laboratories with respect to current technology to improve the education standards of institutions.
- **Incorporating soft skills with technical skills:** It is the university authorities who governed or controlled the curriculum of engineering institutions; it is advisable to implement soft skills and other communication skills purposefully to enhance the employability of students. As suggested by students, academicians and industries that it is only when technical skills will get assisted by soft skills then only the gap can be dissolve.

III. CONCLUSION

The engineering students of India are in great need to train their soft skills for developing their personalities and for improving their performance during interviews. These soft skills training will be of great help to them to build up their self-esteem and confidence. It is the role of English teachers to take the initiative to build these skills among students. Hence in real sense the teachers should expected to perform the role of facilitator to help the students in their learning process.

The engineering institutions understanding the role of faculties, should avail them to the orientations program to train them. It is only the teacher who can create positive attitude among students and inspire them to target on their strengths overcoming their weaknesses. The email chatting, presentations, group discussions are helpful activities to do so.

If the proper facilities and training provided to the engineering students it become possible for learners to enhance their widened perspectives to face the challenges of industries. Conversation to industrialist experts, exposing students to the corporate culture can in real sense empower the learners to make themselves a good fit for the job.

REFERENCES

- [1] Chadha, R. & Mishra, A. (2014). Industry's Requirement for Employability of Management Student in Present Scenario. International journal of business quantitative economics and applied management research. 1(3): 61-69.
- [2] Esa, A., Selamat, A., Padil, S. and Jamaludin, J. (2014). Applications of soft skills in engineering programme at Polytechnic Malaysia. Science Direct Procedia - Social and Behavioral Sciences, :115-120.
- [3] Goswami, R. (2013). Importance of Soft Skills in the employability of IT students. BVIMSR'S Journal of Management Research Proceedings of National Conference on Emerging Trends: Innovations and Challenges in IT :1-5
- [4] Hillmer, G. (2013). Social and Soft Skills Training Concept in Engineering Education. International Conference on Engineering Education – ICEE,1-5.
- [5] P'Rayan, A., and Shetty, R. (2015). Developing Engineering Students' Communication Skills by Reducing their Communication Apprehension. English for Specific Purposes World, 7(4(20):1-24.
- [6] Ramlan, R., and Ngah. N. (2015). Student Perception on the Importance of Soft Skills for Education and Employment. PEOPLE: International Journal of Social Sciences, Special Issue 1(1):696-708.
- [7] Shamsuri, M., Saad, M., Robani, A., and Majid, I.A. (2013). Employers' perception on engineering, information and communication technology (ICT) students' employability skills. Global Journal of Engineering Education. 15(1):42-47.
- [8] Srivastava, N., and Shah, R. (2014). A Study on Factors Affecting Employability Skills of Management Students. International Journal of Management and Development Studies.3 (2):17-24.
- [9] Swarna Latha, T. (2013). Soft Skills Training For Young Engineering Graduates: A Boon for Enhancing Their Employability. International Journal of the Frontiers of English Literature and the Patterns of ELT. I(1):1-6.
- [10] Sanyal, S.S. (2013). Improving Soft Skills of Students to Make Them Employable. SIT Journal of Management. 3(2):419-428.
- [11] Raman, M., and Koka, A. (2015). The Ever-Increasing Demand for Soft Skills at Workplace: A Study on IT Professionals' Perspectives. International Conference on Management and Information Systems. IV (III): 4-8.
- [12] Dharmarajan, P. V., Pachigalla,R., and Lanka, K. (2012). The Significance of Inculcating Soft Skills in Students in the Process of Teaching Hard Skills. International Journal of Applied Research & Studies, I (II):1-11.
- [13] NASSCOM. (2005). Retrieved June 1, 2005 from the National Association of Software and Service Companies India (NASSCOM).
- [14] National Employability studies IT / ITes Sector Key Findings and Intervention Indicators (2010), Aspiring Minds Pvt. Ltd.
- [15] ABET, (2012). Criteria for Accrediting Engineering Programs, Effective for Evaluations during the 2013-2014 Accreditation Cycle. Pp. - 2.