Approach to Employability Skills in Technical Education & its impact on satisfaction of selecting an Institute.

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ABSRACT
Ample of the current motivation to teach and assess employability skills will decide India's ability to compete in the world economy. For a win-win situation, there must not be any differences in Institute's perception and students' experience in accessing employability skills for future prospective. What this paper aims to demonstrate is that, although as academics/service providers, we can use a general term "Employability skills", we need to describe what is meant by this term to students, and colleges also need to recognize how their services and skill development are impacting on satisfaction of students while accessing employability skills. The purpose of this study is to examine the importance perceived by the institutes and experience realized by the students and to connect employability skills' growth on students' satisfaction of selection of an institute of Technical Education.

Keywords
Employability Skills, Services, Technical Education, Satisfaction

I. INTRODUCTION

Developing employability skills is an on-going process. Students enter college with the expectation that they will acquire the knowledge, skills and abilities to enter in the market. Graduates expect that they have acquired the skills necessary to perform their jobs and to advance their careers. In the modern knowledge economy, employers have an expectation that a college education will provide graduates with the employability skills required to perform their jobs [1]. [2]. It is the college's responsibility to identify and implement the appropriate soft skills training approach to help students with this transition. An understanding of the attitudes in relation to these various skills is important because education and industry seem to work in separate systems, and employers historically have not clearly communicated their needs and expectations for the college graduates that they have sought to hire. Reference [1] reported that college professors and administrators felt they were teaching students what they need to know, although only 35 present of a sample of industry executives thought that colleges taught students what was important to succeed at work. Previous studies have suggested that employability is a multi-faceted construct as per reference [3] with both internal and external dimensions [4]. Employability skills are the results accumulated from various studies to date point to the many benefits of cooperative education such as students' improved self-confidence, self-concept and improved social skills [5], gains in practical knowledge and skills [6], enhanced employment opportunities [7]. There is, however, little evidence about these students' expectations from their cooperative education placements about specific aspects of the job and the organization. In recent years, that picture has changed dramatically with ever growing numbers of employers assessing foundational skills, primarily in reading and

mathematics, prior to hiring [8]. Reference [9] suggested that if it is difficult to know what skills are required by industry, then it is equally difficult to determine whether there is a gap between what skills are needed and received from employees. If they are not met then, as evidence by [10] suggests, the students may still be discouraged from entering their chosen professions after graduation. Therefore, the cooperative education experience may be a crucial factor for students in making this decision. Reference [11] suggests that concern from employers that undergraduate programs are failing to provide graduates with the necessary skills for their careers is a worldwide issue. However, there was no evidence that the efforts devoted by the institutes to the teaching, learning and assessment of employability skills had a significant independent effect on graduate labor market outcomes [12]. Measuring employability outcomes is even more difficult than defining them, and methods to do so have met with reservation [13].

II.LITERATURE REVIEW ON EMPLOYABILITY SKILLS AND SATISFACTION

Reference [14] has defined it as: "a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy. Reference [15] defined employability as, having a set of skills, knowledge and understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful. Gibb, reference [16] identified the common elements as, basic/fundamental skills: such as literacy, numeracy, using technology people-related skills: such as communication, interpersonal, teamwork, customer service skills conceptual/thinking skills: such as collecting and organizing information, problem-solving, planning and organizing, learning-to-learn skills, thinking innovatively, and creatively, systems thinking personal skills and attributes: such as being responsible, resourceful and flexible, being able to manage one's own time, having self-esteem business skills: such as innovation skills, enterprise skills community skills: such as civic or citizenship knowledge and skills. Entry level college graduates have not acquired the skills necessary for the workforce and, as such, are not prepared for the demands of industry careers [17]. Today's college students are expected to learn content at a faster rate than ever before. In doing so, they are expected to develop the "hard" technical skills as well as the "soft" people skills necessary to be successful in the workplace [18].

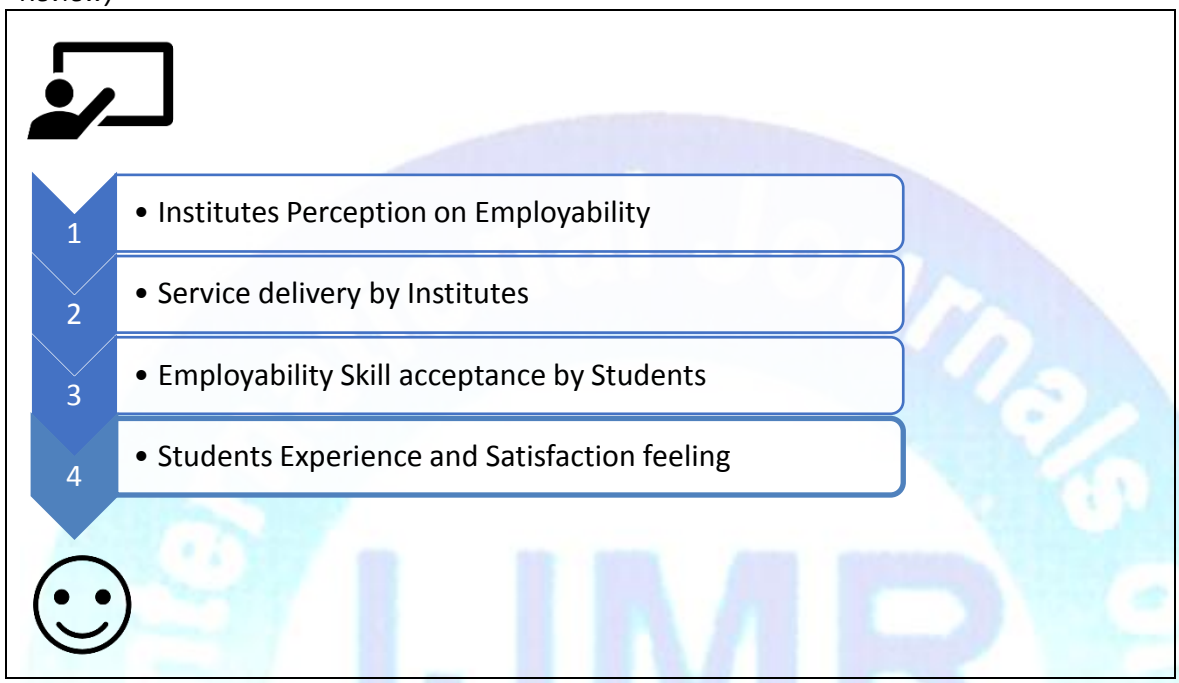
Employability skills are captured by training and not by teaching! Employability has been viewed differently by different people: 'a set of achievements—skills, understandings and personal attributes—that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy' [19]. Hofstrand (1996) [20] A possible reason for the higher education institutions which are failing to address the employability skills of its students could be the college faculty do not understand what are the lacking skills and do not possess the necessary resources to teach them. Reference [21] is of opinion that while higher education faculty may not know what are the lacking skills but the, corporate employers do, and as such, can have an influence on the enhancement of these skills in education. Drawing from extensive review of literature and employers' perspective in India, employability is understood to be a function of two basic factors: (a) academic qualification of an individual; and (b) the learning environment that helps him build certain generic skills [22]. As per the survey conducted by reference [23], core employability skills, communication skills, and professional skills are considered important for hiring. Among all skills, communication in English is among those most demanded [23]. As per panel discussion [24], the institutes need to plug the gap in the first or second year by introducing foundation skills like English and logical ability etc. and internships must be effectively leveraged. As per reports of Wheebox, which is

India's leading talent assessment company; Learning Abilities, Result Orientation, Interpersonal Skills, Integrity and Values and Adaptability are main recruitment skills that are required by the industries; Engineering & Automation, Internet Based Industry, Telecomm. and Allied Industry, Service Industry, Core Sector and BPO/KOP Industry [25]. Groupwork or Teamwork is considered to lead to development of generic skills, assumed to be transferable to the workplace. These skills are highly valued by students and employers [26]. Students' satisfaction with groupwork can affect attitudes towards learning, affect student retention and reflect on teaching and university reputation [27]. Reference [28] suggest that in the future knowledge-based economy, emotional intelligence/stress handling will become even more important with the predicted expansion of customer-facing jobs in which human interaction plays a central part.

Reference [29] define satisfaction as a state felt by a person who has experienced performance or an outcome that fulfill his or her expectation. Satisfaction is a function of relative level of expectations and it perceives performance. Satisfaction is also perceived as the intentional performance which results in one's contentment [30]. Consumers, such as students, usually make a purchase decision based on their own valuation of the marketing efforts. However, their satisfaction is based on their evaluation of the products or services utilized and whether or not their expectations or needs were met [31]. Educational institutions use certain methodologies to determine the level of their students' satisfaction regarding the services and programs they offer to better fulfill student needs and satisfy student aspirations [32]. If the higher education sector knows about the factors that improve students' perception of satisfaction, it will can provide better services as well as improving existing ones. To gain competitive advantage, reference [33] recommend universities to highlight the strategic importance of social values gained by students when joining them. Moreover, they argued that universities must demonstrate how they provide support to their students' objectives achievement. Basically, this would affect the students' perception of satisfaction hence the university's competitiveness. Several factors influence students' level of satisfaction as well as their achievement and absorption capacity. To deliver knowledge with quality effectively, teaching methods by instructors, as well as the related supporting services, are two critical elements [33]. Determining and assessing students' satisfaction with their educational experiences is not so easy, but can be very helpful for the institutes to build strong relationship with their existing and potential students.

The institutes and universities typically had some written commitment to employability in their policies. However, the extent to which these were operationalized and reflected across departments and faculties varied widely. Several studies highlighted variation in how universities organized their links and programs with employers to help promote the employability of their students. For example, some had systematic approaches to build links with employers, whereas others reacted to employer approaches or relied on individual faculties and departments to develop links. There was evidence that in some of cases employability was being given greater priority at central or strategic level, with respondents stating that this would help cascade good practice to different levels in their university. In some cases, this process was being enhanced by the creation of employability program and awards with designated personnel to coordinate and champion employability measures. The drivers underpinning efforts to promote employability were diverse, but one important factor appeared to be a desire to attract students, who were increasingly looking for degrees that would improve their likelihood of securing employment in a time where competition for vacancies was intensifying [34].

(Fig 1: Accessibility on Employability Skills in Technical Education, Self-Creation through Literature Review)



III. RESEARCH METHODOLOGY

The objective of this paper is to find out how employability skills are growing by the services delivered by Institute and how the students perceived their satisfaction of selection of Technical Education on their employability skill growth. A quantitative research through a survey was made. It comprised of a structured questionnaire sent through e-mail to the current-students enrolled and recently passed-out students belonging to the institutes of Technical Education (TE) affiliated to North Maharashtra University. Sample size (n) was calculated at 95% Confidence Level for which Standard Normal Variate (Z) is 1.96 & at Standard Error (e) of 0.03 by $n=Z^2 (p)(1-p)/e^2$; where n = Sample Size to be used for this study, N = unknown population, p = Estimated Portion of Population N. For p = 90%, 'n' comes out to be 553. However, sample size of 664 was selected by quota sampling from technical institutes offering different programs in engineering, pharmacy and management & various students based on their location of native place and gender. The google form with questionnaire was sent through E-mail to the respondents which comprised structured and closed ended questions measuring various Employability Skills & Satisfaction of selection. To measure employability skills; respondents were asked to weight on a scale ranging from 0 to 5, on question 'How your abilities/ qualities (Employability Skills) developed during College Period'. To measure level of satisfaction respondents were asked to weight on a scale ranging from 0 to 5, on question 'Are you satisfied with your decision to take admission in this Institute/College?' Value zero is low weightage and value five is high weightage. The characteristics of the sample is described as below;

By Gender: Male: 454; Female: 210

By Native Place: District: 162; Taluka: 283; Village: 219

By Technical Educational Program: Engineering: 492; Pharmacy: 113; Management: 59

IV. DATA INTERPRETATION AND OBSERVATION

	Employability Skills									
	General Knowledge	Intelligence Quotient	Technical Skills	Soft Skills	Team Development	Leadership	Confidence Level	Stress Handling Ability	Creativity / Idea Generation	Hardworking Ability
Standard Deviation	1.501	1.487	1.411	1.457	1.502	1.535	1.497	1.521	1.516	1.446
Mean of Employability Skills achieved through Institute Services	3.230	3.349	***3.581***	***3.558***	***3.507***	3.330	***3.533***	***3.580***	3.440	***3.831***
Rank of Importance assumed through service delivered by Institutes based on Mean of Employability Skills achieved by students	10	9	2	4	6	8	5	3	7	1
Satisfaction of Selection of Institute perceived by the Students on Employability Skills achieved (*F-value*)	19.15	***29.67***	23.33	***23.87***	***30.75***	19.78	***23.37***	21.84	***26.53***	18.03
Rank of Satisfaction of Selection of Institute perceived by the Students based on Employability Skills achieved	9	2	6	4	1	8	5	7	3	10

MANOVA for Satisfaction of Selection of an Institute Vs Employability Skills achieved
s = 1 m = 4.0 n = 325.5

	Test	DF		
Criterion	Statistic	F	Num	Denom	P
Wilks'	0.94773	3.602	10	653	0.000
Lawley-Hotelling	0.05515	3.602	10	653	0.000
Pillai's	0.05227	3.602	10	653	0.000
Roy's	0.05515				

(Obtained by Statistical Software: MINITAB 17)

(Table 1: Employability Skills: Institute's Importance Vs Satisfaction Perceived on selection

From Table 1, it is observed that Employability Skills; Hard-working ability (Mean=3.831, Rank 1), Technical Skills (Mean=3.581, Rank 2), Stress Handling ability (Mean=3.580, Rank 3), Soft Skills (Mean=3.558, Rank 4), Confidence Level (Mean=3.533, Rank 4) and Team Development (Mean=3.507, Rank 6) are among the top of skill development process. Students perceived that these are the frontline skills that they gained during their study in the institute of Technical Education. However, when their growth of Employability Skills is compared with their satisfaction of selection of TE, it is found that satisfaction of their decision of selection of an institute of TE is strongly associated with employability skills; Team Development (F-value=30.75, Rank 1), Intelligence Quotation (F-value=29.67, Rank 2), Creativity/Idea Generation (F-value=326.53, Rank 3), Soft Skills (F-value=23.87, Rank 4), Confidence Level (F-value=23.37, Rank 5).

V. EMPIRICAL FINDINGS

- The study reveals that institutes services are oriented to develop Hard-working ability, Technical Skills, Stress Handling ability, Soft Skills, Confidence Level and Team Development.
- Students are interested or satisfied with the development of Team Development, Intelligence Quotation, Creativity/Idea Generation, Soft Skills, Confidence Level. Thus, there is a clear gap of perception while accessing employability skills.
- Students prefer an institute of TE which offers services that are oriented with the development of Team Development, Intelligence Quotation, Creativity/Idea Generation, Soft Skills, Confidence Level
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VI. CONCLUSION

Educating students with a comprehensive and deep set of employability skills that are in demand would be of tremendous importance for the employability of individuals and for the country's development. Many institutes strive to prove that their courses can enhance a student's employment prospects. Nevertheless, they need to be increasingly clear about how the curriculum and services helps in developing skills and capabilities needed in the world of work, due to pressure of competitiveness. It is not sufficient simply to promote the benefits of technical education in general when prospective students are highly focused on their employment prospects: they need to see the links clearly articulated. It is equally important to ensure that students themselves are aware of the employability skills they are developing through their assessment experiences and should able to evidence these effectively in the employment market. It is equally important to evaluate services delivered and its impact on the development of employability skills in accordance with the market demand. The market scenario and the requirement of skills must be clear and known to all prospective graduates. The institutes of Technical Education also must generate interest among students in developing such skills with intellectual foundations of career development learning.

REFERENCE

1 Bok, D. (2006), *Our Underachieving Colleges*, *Princeton University Press*, Princeton, NJ.
2 Cappelli, P. (2008), "Talent management for the twenty-first century", *Harvard Business Review*, Vol. 86 No. 3, pp. 74-81.
3 Forrier, A., & Sels, L. (2003). The concept of employability: A complex mosaic. *International Journal of Human Resources Development and Management*, 3(2), 102–124.
4 Rothwell, A., & Arnold, J. (2007). Self-perceived employability: Development and validation of a scale. *Personnel Review*, 36(1), 23–41.
5 Wilson, J.W. (1974), "Impact of cooperative education upon personal development and growth of values. A final report to the Braitmayer Foundation", Cooperative Education Research Centre, Northeastern University, Boston, MA.
6 Williams, W., Sternberg, R., Rashotte, C. and Wagner, R. (1993), "Assessing the value of cooperative education", *Journal of Cooperative Education*, Vol. 28 No. 2, pp. 32-55.
7 Sharma, L.A., Mannell, R.C. and Rowe, P.M. (1995), "The relationship between education-related work experiences and career expectations", *Journal of Cooperative Education*, Vol. 30 No. 3, pp. 39-47.
8 Greenberg, E. R., Canzoneri, C., & Straker, T. (1994). 1994 AMA survey on basic skills testing and training. (Available from the American Management Association, 135 W. 50th Street, New York, NY 10020)
9 Bracey, G.W. (2006), "Research: the high skills hoax", Phi Delta Kappan, Vol. 88 No. 1, pp. 93-4.
10 Barron, P., & Maxwell, G. (1993). Hospitality management students' image of the hospitality industry. *International Journal of Contemporary Hospitality Management*, 5(5), V.
11 De la Harpe, B., Radloff, A. & J. Wyber (2000) Quality and generic (professional) skills, *Quality in Higher Education*, 6(3), 231–243.
12 Mason, G., Williams, G., Cranmer, S. & Guile, D. (2003) How much does higher education enhance the employability of graduates? (Higher Education Funding Council for England (HEFCE)). Available online at: http://www.hefce.ac.uk/pubs/rdreports/2003/rd13_03/default.asp (accessed 31 January 2005).
13 Harvey, L., Locke, W. & Morey, A. (2002) Enhancing employability, recognizing diversity: making links between higher education and the world of work. London and Manchester, Universities UK. Available online at: /www.universitiesuk.ac.uk/ (accessed 31 January 2005).
14 Yorke, M. and Knight, P.T. (2006) Embedding employability into the curriculum. York, The Higher Education Academy.
15 Pool, L. and Sewell, P. (2007) The key to employability: developing a practical model of graduate employability. *Education and Training*. 49 (4), 277-285.
16 Gibb, J. (2004). Generic Skills in Vocational Education and Training: Research Readings. National Centre for Vocational Education Research (NCVER).
17 Peddle, M. T. (2000). Frustration at the factory: Employer perceptions of workforce deficiencies and training trends. *Journal of Regional Analysis & Policy*, 30(1) 23-40
18 Hofstrand (1996) Eaton TV, Kleshinski AS, Scholar YU. Improving Undergraduate Learning for employability through International Exposure. 2014, 7(1).
19 Yorke, M. (2004). Employability in higher education: What it is—what it is not. York: Higher Education Academy.
20 Hofstrand, R. (1996). Getting all the skills employers want. Techniques: Making Education & Career Connections, 71(8), p. 51.

21 Taylor (1998). Education V. Vocational Technology Education Students' Perception on Employability Skills. 2012; (1):4-5.
22 Shrivastava, Aarti & Khare, Mona (2012). Skills for employability: South Asia. Washington DC: Results for Development Institute.
23 Andreas Blom and Hiroshi Saeki. 2011. "Employability and Skill Set of Newly Graduated Engineers in India." Policy Research Working Paper 5640, World Bank, Washington, DC
24 The Hindu 2016. Panel Discussion: Most of engineering students lack employability skills. http://www.thehindu.com/news/national/andhra-pradesh/most-of-engineering-students-lack-employability-skills-say-experts/article8319173.ece
25 Wheebox. India Skills Report 2017. https://wheebox.com/india-skills-report-2017.htm p.34-35
26 Commonwealth of Australia (2007), Employability Skills: From Framework to Practice, Department of Education, Science and Training, Canberra, ACT.
27 Burdett, J. and Hastie, B. (2009), "Predicting satisfaction with group work assignments", Journal of University Teaching & Learning Practice, Vol. 6 No. 1, available at: http://ro.uow.edu.au/jutlp/Vol6/iss1/7 (accessed on July 11, 2011).
28 Moynagh, M. and Worsley, R. (2006), "Glimpses of tomorrow", The Tomorrow Project, available at: www.tomorrowproject.net/pub/1__GLIMPSES/Employment/-237.html (accessed 2 February 2007).
29 Kotler, P. & Clarke, R.N. (1987). "Marketing For Health Care Organizations," Englewood Cliffs, NJ: Prentice-Hall.
30 Usman, A. (2010). "The Impact of Service Quality on Students' Satisfaction in Higher Education Institutes of Punjab," *Journal of Management Research*, 2 (2).
31 Athanassopoulos, A., Gounaris, S., & Stathakopoulos, V. (2001). Behavioral Responses to Customer Satisfaction: an empirical study. *European Journal of Marketing*, 35(5-6), 687-707
32 Qureshi, Tahir. Shaukat, Muhammad and Hijazi, Syed (2011). Service Quality SERVQUAL model in Higher Educational Institutions, What Factors Are to be Considered. Interdisciplinary Journal of Contemporary Research in Business. Vol. 2, No. 5. pp: 281-290.
33 Petruzzellis, L., & Romanazzi, S. (2010). Educational value: how students choose university. *International Journal of Educational Management*. University of Bari Bari, Italy, 24(2), 139-158
34 Kevin, Lowden; Stuart, Hall; Dely, Elliot; and Jon, Lewin (2011). Employers' perceptions of the employability skills of new graduates. ISBN 978-0-9565604-3-8. Edge Foundation London.2011.