Students' Perceptions of Employability : A Gender Perspective

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Abstract

The purpose of this paper was to study the perception of students (on the threshold of job market) regarding the employability skills that are important to get and secure employment in the professional job market. However, the main aim of the study was to seek the difference in skills gender-wise. The questionnaire was developed to assess the perception of the skill sets considered important by students who were on the verge of getting employed. A sample of 325 students from various disciplines from nine engineering and management institutions of Punjab was considered for the study. The study found significant difference between male and female respondents' rating for communication skills, coping to change with changing environment, decision - making skills, motivation, stress - management skills, time management skills, computer programming skills, and IT skills and on the other hand, found no significant difference between male and female respondents' rating in case of leadership skills and problem - solving skills.

Keywords : **ANOVA, employment, perceptions, students' skills**

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Since independence, the Indian economic development has hinged on the strategy to achieve economic and technological self-reliance. It is evidently visualized that economic self-reliance would be unattainable unless it is based on domestically groomed manpower and skills. A strong emphasis was laid on an accelerated rate of human capital formation by perceptibly investing in education, research, and training. The whole edifice of social and economic development needed to be raised on the institutions of learning and research. Thus, a wide network of universities, engineering colleges, and institutes of technology including medical and other technical and research institutes was forged, which eventually created in India a reservoir of technically trained and skilled manpower, one of the largest in the world (Chadha, 2008).

In the present scenario, highly technical and competitive positions demand highly professional manpower to be trained enough on their skills that help them to secure their employment in the long run because of growing competition in the professional labour market (Khan, 2018). A large number of graduates are hired every year via campus placements (Harvey, 2000). It is usually expected that the graduates passing out from various universities/colleges would have good subject knowledge (Knight & York, 2003).

Every year, too many graduates leave universities/colleges to get jobs, despite the fact that they are not fully

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equipped with the skills/attributes/qualities that are needed to get employment (Subramanian & Ben, 2018). During the recent years, due to massive employment generation, a large number of jobs are readily available. Still, graduates lack the necessary skills to get and keep jobs. According to the employers' perspective, employability refers to the 'work readiness,' that is, graduates should be equipped with the required skills so that they can contribute efficiently to fulfill organizational objectives. However, it is widely proven that graduates lack certain employability skills. Manpower Group's (2015) survey found that 75% of the Indian graduates were unemployable. Moreover, 67% of the employers in India found it strenuous to find the right talent from both science as well as arts graduates. India can reap the benefits of demographic dividends only by effectively skilling and up-skilling its vast manpower by main streaming vocational education, modules of finishing schools, and partnership of industry academia in the curriculum of higher education.

Literature Review

Employability skills are needed not only to gain employment, but also to maintain employment. The reason for low employability of graduates is the disparity between the skills taught at educational institutions and those demanded by the labour market.

There are numerous studies in the existing literature on the skills demanded of professionals of the market, but the present study endeavored to make use of perceptive responses of students who were on the threshold of job market, as such skills are required to attain employment. This section discusses the review of related literature to provide insights into the students' perceptions on employability.

Rothwell, Jewell, and Hardie (2009) examined the expectations and self-perceptions of employability of 102 business graduates at the post-graduate level in a university business school in the Midlands region of U.K. The findings indicated that employability was not affected by factors like cultural background, gender, or the ability to undertake an internship. The perception of employability was good but a strong stress had been given to the brand and reputation of the university.

Wye and Lim (2009) analyzed whether skills possessed by the undergraduates of a private university in Malaysia met the requirements of the employers and how far employability skills had developed in the university by considering a sample of 200 undergraduate students and 30 employers. The results showed that under - graduates over-estimated their capability as fresh graduates in getting a handsome salary. Moreover, they were highly competent in personal qualities like adaptability, ambitious, energetic, enthusiasm, etc. Further qualities like stress tolerance, emotional intelligence, responsibility, integrity, and honesty, positive attitude towards work, and punctuality reported higher level of mismatch indicating that the university had not performed well in inculcating personal qualities in them.

Aspiring Minds Assessment Pvt. Ltd. (2010) conducted India's first employability study of technical graduates based on the results of a standardized computer-based test called AMCAT conducted for more than 40,000 engineering and MCA students (in final year) across the country. AMCAT was conducted in more than 12 states under proctored environment with the objective of adjudging employability in the IT/ITES sector. The factors considered included English communication, quantitative skills, problem-solving skills, computer science, and programming skills. The main findings of the study were that the current talent pool had very low employability (4.22%) with regard to IT product companies. The study found a gap in skills, particularly in quantitative ability, computer programming, English, and logical ability. The study also revealed that males and females had equivalent employability with regard to the IT industry.

Atfield and Purcell (2010) presented a distinct picture about the perceptions of the skills that final year students had to offer and the skills that employers sought. Students reported that their research skills, critical analysis, specialist knowledge, ability to apply knowledge, time-management skills, interpersonal skills, presentation skills, team working, problem solving skills, communication skills, computer literacy, and numerical ability were

developed a lot during the course. The findings also revealed that the skills which students possessed were not enough to find the kind of job they would like in the near future.

Othman, Musa, Mokhtar, Ya'acob, Latiff, Hussein, Mohammad, and Kaur (2011) examined the extent of consciousness and level of preparation of undergraduates regarding employability with respect to English language. To fulfill this objective, a random sample of 23 final year students from five different faculties, that is, Faculty of Science and Technology, Faculty of Information Science and Technology, Faculty of Economics, Faculty of Islamic Studies, and Faculty of Social Sciences from University Kebangsaan Malaysia (USK) were approached for focus group interviews. The study found that the respondents were aware of the necessary preparations like background company research or job specifications in case of preparation for job interviews. Moreover, they prioritized communication skills and soft skills, which are important factors to gain employment. However, students from the Islamic faculty lacked communication skills. The students admitted that their level of proficiency in English was low as compared to students from other universities.

Pandey (2012) made an attempt to identify important factors affecting employability of MBA students. A random sample of 100 students from a management institute in Nagpur was considered. These students were required to fill the questionnaire framed on the basis of 10 life skills, that is, self awareness, empathy, interpersonal relationship skills, communication, critical thinking, creative thinking, decision making, problem solving, coping with stress, and coping with emotions. The findings exhibited that high consideration and apprehension of life skills like self awareness, empathy, and communication ranging from 60% to 90% and life skills like critical thinking, loss of friends, and stress were of low consideration ranging from 24% to 50%.

Chithra (2013) studied the perceptions of both employers and students regarding employability skills required to get a job in multinational companies. The sample consisted of 90 final year students of graduate and postgraduate engineering studies and 35 employers. Students gave more importance to technical skills ; whereas, employers attached more importance to personal and behavioral attitudes. The disparity between two of them made students unemployable.

Syed, Abiodullah, and Yousaf (2014) threw light on the factors affecting quality of Pakistani graduates as potential employees for the 21st century job market. The sample consisted of 222 final year students of University of Punjab's Institute of Education and Research (IER). Measuring emotional intelligence and interpersonal skills of university students and assessing their impact on academic knowledge was the main aim of the study. The study found no correlation between employability skills and academic achievement of the students.

Clement and Murugavel (2015) highlighted that many engineering students were unemployable due to their poor communication skills and lack of confidence. A sample of 160 students from different engineering colleges who came to attend a technical workshop in Saveetha School of Engineering, Saveetha University, Chennai was considered. The findings revealed that there was a big gap between the teaching methodologies and the students' language skills.

Objective of the Study

The objective of the present study is to study gender-wise differences in skills.

Database and Methodology

The nature of the study is such that the primary survey had to be carried out and responses of the sample respondents were elicited. The survey was conducted between January - March 2017 in three selective cities of Punjab, that is, Amritsar, Jalandhar, and Ludhiana. Nine engineering institutions were purposively selected from the earlier mentioned cities that offer various engineering and management programmes and 405 questionnaires

were distributed to students (on the verge of employment) from four streams, that is, B.Tech. (Computer Science, Electronics and Communication, IT, Civil, Mechanical, Chemical, Instrumentation & Control, and Electrical), M.Tech (Computer Science, Electronics and Communication, Civil, Instrumentation & Control, Production), MBA (HR, Finance, and Marketing), and MCA in nine engineering institutions, but we could get only 325 filled up questionnaires. Thus, the response rate was 80%. ANOVA (One-way) was applied to figure out the differences in skills (gender-wise) among the respondents.

Analysis and Results

(1) Sample Profile of the Respondents : The sample profile of the respondents is discussed in the following paragraphs in detail :

(i) Age : Respondents within the age group of 22 - 24 years (65.8%) dominated the sample. Rest of the respondents in the study sample belonged to the age group between 24 - 26 years (28.6%), less than 22 years (4.0%), and above 26 years (1.5%), respectively.

(ii) Sex : The sample was dominated by males (52%) while females constituted 48% of the total respondents.

(iii) Background : In the study sample under consideration, the urban category overshadowed the sample by 59%. It is observed that mainly respondents from an urban background as compared to rural background pursue engineering, management, and computer courses due to availability of extensive facilities of education in urban areas.

(iv) Qualifications : Majority of the respondents in the study sample were pursuing B. Tech (62.8 %). Rest of the sample covered respondents pursuing MBA (17.5%), M. Tech (11.4 %), and MCA (8.3%), respectively. The study sample included students from engineering, management, and computer courses.

(v) Institution of Study : Majority (71.4%) of the sample respondents were pursuing their degrees from private institutions, and the remaining 28.6% were striving to accomplish their degrees from government institutions. Ernst & Young and FICCI (2011) observed that due to emerging trends of privatization, there has been significant investment in the education sector, which has highlighted the role of private sector in recent years in establishing various quality institutions.

(vi) Have you Received any Scholarship/Stipend Throughout your Degree ? : Most of the respondents (78.5%) did not get any scholarship/stipend throughout their degree. The remaining 21.5% acquired scholarship/stipend during their degrees.

(2) Responses to Other Questions

(i) Qualification of Teachers : Most (74.8%) of the sample respondents brought to notice that they had mainly been taught by teachers with an educational level upto master's degree. The rest, that is, 1.2 % and 4% reported that they had been taught by teachers who had completed their doctorate and graduate teachers, respectively. The modification of degree structure to the bachelor's/master's/doctorate level can lead to numerous changes in the educational institutions, primarily considering the issue of teaching at the core of concern of management and faculty of institutions. In order to raise the quality of education and thus, enhancing employability of students, the

teaching process should be driven by highly qualified and trained personnel. However, Ernst & Young and FICCI (2013) revealed that many universities and colleges lacked physical infrastructure and most importantly, quality teachers. It was also observed that higher educational institutions do not organize teacher training programs in order to develop effective teaching skills among the teachers.

(ii) Methods of Teaching Adopted by the Faculty : According to 57.5% of the students, teachers preferred giving oral lectures to students in order to impart knowledge to them. Furthermore, 31.4% and 11.1% highlighted that the teachers delivered lectures through power point presentations and by giving assignments, respectively. Syed, Abiodullah, and Yousaf (2014) argued that delivering lectures by teachers was a superseded method of teaching in the present scenario. Thus, it can be concluded that teachers are still stuck with old methods of teaching, though in the present era, there is need to bring reforms in the teaching practices and introduce some innovative measures to spread knowledge to the students.

(iii) Whether the Staff Attended International Seminars/Conferences/Workshops Abroad ? : The astonishing fact is that very few students (17.8%) claimed that their academic institutions sent their teachers to foreign countries in order to update their knowledge and profile by attending conferences/seminars/ workshops. Ernst & Young and FICCI (2013) recommended that higher educational institutions should sponsor faculty members for participating in seminars and conferences across the world.

(iv) Whether Faculty from National/International Institutions are Invited to Deliver Guest Lectures ? : Majority (69.8%) of the students said that their respective institutions did not invite guest faculty from national/international institutions to deliver knowledge sessions to students ; whereas, 30.2% reported that sometimes, that is, in a year, their institutions arranged interactive sessions between students and the guest faculty from various esteemed academic institutions at national/international levels. Ernst & Young and FICCI (2013) recommended that partnerships between industry and academic institutions should be encouraged so that industry experts can share their knowledge, experiences, and requirements of the competitive job market with students.

(v) Maintenance of Library : Most of the sample respondents, that is, 64.9% claimed that their institutional library was not well equipped with books/periodicals/journals/newspapers. They were not able to access e-journals and other strategic information sites. To overcome it, they had to visit libraries of other academic institutions and organizations. On the other side, 35.1% respondents felt that there was open and easy access to all educational websites and books, and their educational library was enriched with knowledge databases. Bawakyillenuo, Akoto, Ahiadeke, Aryeetey, and Agbe (2013) suggested that there was a need to improve infrastructure of educational institutions so as to improve enrolment ratios.

(vi) Maintenance of Laboratory : The respondents in large numbers (66.8%) held the view that the laboratory of their educational institutions lacked modern equipments/apparatus, while 33.2% of the respondents were of the opinion that their laboratory was well equipped with modern equipments. E&Y and FICCI (2013) stressed the need on the part of the government to allocate proper funds to academic institutions for the upgradation of physical infrastructure.

(vii) Whether Course is Adequate to Get Employment or Not : A large number of respondents, that is, 66.2% stated that their course was not up to the mark. No practical training was provided. Zaharim, Yusoff, Omar, Mohamed, Muhamad, and Mustapha (2009) mentioned that students could strengthen their employability skills

by going through practical trainings and by learning how to apply knowledge relevant to their discipline. Only theoretical aspects were emphasized. On the other hand, 33.8% contradicted the view that their course provided sufficient amount of knowledge and training, which could further help them to get desirable jobs.

(viii) Whether Curriculum is Revised Regularly or Not : Majority of the respondents (80%) said that the curriculum of their syllabus was not revised at regular intervals of time, while 20% said that the curriculum was revised regularly. Selvadurai, Choy, and Maros (2012) argued that the curriculum directly affected employability. In order to cater to the needs of the professional labour market, it has become imperative to update the curriculum at regular intervals.

(ix) Periodicity of Revision of Curriculum : Nearly 26% of the respondents mentioned that the curriculum of their respective courses was updated after every 2 years, while 74% argued that some minor changes were made after completion of the particular degree course and not in the middle of the running course. However, E&Y and FICCI (2013) recommended that the faculty should be trained enough to deliver the revised curriculum content to the students.

(x) Whether Industry Professionals are Invited to Modify the Curriculum that is Best Suited to Industry Needs ? : Most of the respondents, that is, 92.9% stated that there was no intervention of experts from the professional labour market in making alterations in the curriculum of a particular degree course. The remaining 7.1% of the respondents specified that their curriculum was modified according to industry standards on the basis of the recommendations of industry experts. Tran (2010) and Krishna (2015) recommended that the industry - academia interface should be promoted and the views & experiences of industry leaders should be considered while framing the curriculum of respective courses.

(xi) Whether Leading Companies Visit the Institutional Campuses for Placement ? : Majority of the respondents, that is, 59.7% argued that well distinguished companies did not visit their campus for placement. Chakrabarty (2016) mentioned that companies only visited top colleges to recruit potential graduates. He raised concern regarding students who were good but did not study in top colleges, and remained deprived of opportunities of working in leading companies. On the other note, 40.3% of the respondents specified that leading companies visited their institution for hiring graduates.

(xii) Whether the Institutions Organized Industrial Trainings or Not? If Yes, How Many Times ? : Majority of the sample respondents (55.1%) mentioned that their institution did not take responsibility of organizing industrial trainings. Students themselves approached companies in order to get industrial training. On the other hand, 44.9% of the respondents argued that career services in their institution played a major role in providing training in different companies for a specified period. Williams (2015) discussed that institutions could foster employability by integrating industrial and practical trainings in the curriculum content.

Respondents pursuing master's degrees, that is, M.B.A., M.C.A., and M.Tech were subject to one semester training during full course ; whereas, students pursuing bachelor's degree in the sample stated that they were subject to two semesters training during their course.

(xiii) Have Extra Efforts Been Taken to Communicate Your Point to Other People ? : In our study sample, 84% of the respondents responded positively to this question. On the other hand, only 16% of the respondents stated that they had not taken any additional effort to convey their point to others. It can ,therefore, be deduced that majority of the respondents were lacking in their communication skills because of which they were unable to express their

views to others. Hodges and Burchell (2003) stated that professionals of job market require graduates to be well competent in communication skills to deal with clients and to convey their ideas in a clear and concise manner.

(xiv) Approach Adopted to Convey Your Point to Others : Most of the respondents, that is, 59.4% listened and responded to questions in order to convey their ideas to others. The rest, that is, 13.5% and 8.35%, respectively used analogies to make concepts clear and used different forms of media to express their ideas. The remaining 2.8% adopted other reasons like giving and setting examples to other persons to convey their point to them.

(xv) Essential Steps Taken to Make Good Rapport with Others : It was observed that 57.8% of the respondents specified that they tried to be sympathetic and helpful to make good connection with others. Williams (2015) also mentioned that cooperative attitude was required to perform efficiently and successfully in team core tasks. Further, 20.6% of the respondents mentioned that they tried to manage beliefs of others to establish a bond with them. The rest, that is, 12.3% and 9.2% stated that they tried not to judge others and diluted their ego in order to make good bond with others.

(xvi) Ever Worked in a Team in a Class to Solve a Particular Problem ? : Majority of the respondents (94.8%) revealed that they had worked in a team to get a specified task done in a class. The rest (5.2%) mentioned that they had never worked in a team to fulfill a given task. It is worth mentioning here that teamwork is the most essential skill that is demanded by professionals of the labour market as working in a team leads to improved efficiency, generates ideas, and enhances communication skills (Blom & Saeki, 2011; Hodges & Burchell, 2003 ; Zaharim et al.,2009).

(xvii) Were you Assigned the Task of Leader of a Team by the Teacher to Handle a Specific Problem ? : Most of the sample respondents, that is, 57.5% disclosed that they had not been allocated the job of a leader in a class to handle a given problem, while the remaining 42.5% answered in affirmative to this question. Leadership skills are highly sought by employers so that one could make good decisions in support of strategy delivery.

(xviii) Important Measures as a Leader to Accomplish a Given Task on Time : It was observed that 48.9% of the respondents highlighted the commitment of team members as a significant measure to get tasks done on time. Barnett (2012) highlighted that commitment towards work was essential for lifelong learning, which ultimately strengthened individual's employability. Further, 26.2% and 24.3% of the respondents proclaimed that prioritizing task and ability to cope with the changing environment were important to get work done on time. Only 0.6% held the view that distractions like Facebook and other social media should be banned to get jobs done on time.

(xix) How to Make a Decision Without Having all Needed Information ? : Decision making skill is the most crucial skill needed by employers in the present scenario. For effective decision making, a stable mind is required to weigh both positive and negative outcomes. Gottfredson (1997) stated that the decision - making ability directly influenced graduates' performance in an organization. In our study sample, 58.2% of the respondents stated that they tried to investigate the situation in detail to make good decisions. The remaining 24.9% and 16.9% held the view that they consulted other persons and explored the remaining options respectively in order to make effective decisions.

(xx) Handling of Multiple Tasks to Complete Them on Time : Using time management skills, one can become more productive and can accomplish more with less time and effort. Yorke (2006) recommended that higher

educational institutions could inculcate time management skills in their curriculum so that graduates could learn the art of performing multiple tasks in less time. In our study sample, most of the respondents, that is, 62.5% responded that they prioritized tasks in order to get the work done on time. The remaining 37.5% of the respondents stated that they tried to seek help from others to get the job done.

(xxi) Handling Stress of Work : Raza and Naqvi (2011) stated that stress management was an acquired skill that could be used to perform efficiently even under a stressful environment and recommended that higher educational institutions should train graduates in such a way so that they can easily overcome stress and formulate strategies to target organizational objectives. Majority of the respondents, that is, 62.8% proclaimed that they enjoyed working in a challenging environment. The remaining 24.3% opted for others that included engaging them in other tasks to relieve stress. The rest (12.9 %) stated that they could not bear stress of work, and usually they gave up.

(xxii) Sources of Motivation: Tomlison (2013) stated that self-motivation was another desired skill that was demanded by entrepreneurs in the job market. It is the ability to make ideas turn into reality. Self motivated persons are more likely to look for and grab opportunities that have the best advantage for organizations. Majority of the respondents (75.7%) responded that their family, teachers, and friends usually motivated them in order to stimulate their right course of actions. The remaining 24.3% of the respondents were motivated by their personal achievements.

(xxiii) Whether Respondents Possessed Knowledge of Computer Programming Skills or Not ? : US Department of Labor (2008) highlighted that employers sought experienced programmers to fix technical problems. Apart from traditional languages, employers require graduates who are well versed in languages involving graphic user interface and systems programming. In the study sample, 55.7% of the respondents revealed that they did not have knowledge of computer programming skills. Most of them argued that although various programming languages were a part of their curriculum, yet only theoretical knowledge was provided to them in the class. They did not possess the skills to operate programming softwares. The remaining 44.3% highlighted that they possessed programming skills and were well versed in C, C++, and Java programming languages.

(xxiv) Usage of Software to Make Presentations Related to the Study : In the study sample, 51.7% proclaimed that they did not ever use a software to make study related presentations. The remaining 48.3% used various software to make presentations. Having basic and advanced knowledge of computers was the key advantage for the graduates who were seeking employment in the IT sector. However, Blom and Saeki (2011) found serious skill gaps in basic and advanced computer skills.

(xxv) Did you Ever Develop a Software or an App that can Provide Solutions to End Users ? : It is worth mentioning that not even a single respondent in our study sample had developed an app or software that could provide solutions to end users for various problems. Johnson, Bartholomew, and Miller (2006) recommended that higher educational institutions should organize technology workshops, seminars, etc. for faculty so that they get enough training to impart critical skills to students, thereby improving their chances of overall employability.

(xxvi) Whether Institutions Followed or Adopted Strategies to Enhance Students' Employability Skills? : Paadi (2014), Selvadurai et al. (2012), and Zaharim et al. (2009) mentioned that employability skills are a significant measure to gain and maintain employment in a competitive global economy. Besides academic skills, employability skills are highly demanded from professionals in a job market. In our study sample, 53.5% of the final year students did not have any knowledge regarding the adoption of any strategy by their institutions to

enhance their employability skills, 32.9% claimed that their institutions did not follow any set of tactics to improve their employability skills. The remaining 13.5% respondents revealed that their institution had certain plans of action to reinforce their skills that enabled them to gain desirable jobs in the long run. Among them, most of the students were either class representatives or department representatives in their respective institutions and had awareness of the strategies that their institutions were adopting to improve their employability skills.

(xxvii) Responsible Body for Developing Employability of Students in Institutions : Educational institutions are reeling under severe pressure to provide graduates with employability skills. Majority of the respondents, that is, 57.5% claimed that the academic staff was accountable for developing employability of students. On that note, Rasul, Ismail, Ismail, Rajuddin, and Rauf (2009) recommended that there was a dire need in case of teachers to improve the understanding, implementation, and measurement methods of employability skills. It was observed that 30.2% of the respondents revealed that career services like placement cells were liable for developing employability of students. The remaining 12.3% stated that the curriculum of their respective courses played a major role in incorporating the necessary employability skills in them.

(xxviii) Employability Activities Offered by Institutions : Most of the respondents, that is, 55% proclaimed that their institution did not offer any of the employability activities. Further, 22% revealed that their institution provided training to strengthen skills like teamwork, decision making, communication skills, time management skills, etc. Cai (2012) argued that essential employability skills should be developed while studying in universities/colleges. Furthermore, 15.4% of the respondents mentioned that their institutions organized job fairs and career events. The remaining 7.1% provided insights into this information that their institutions often guided them in searching for jobs on various jobsites.

(3) Difference in Skills (Gender - Wise) : The study basically provides insights into the perceptions of students

Table 1. Descriptives

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Communication Skills	Male	169	4.84	0.427	0.033	4.78	4.91	3	5
	Female	156	4.95	0.221	0.018	4.91	4.98	4	5
	Total	325	4.89	0.348	0.019	4.85	4.93	3	5
Coping to Change with	Male	169	4.01	0.627	0.048	3.92	4.11	2	5
Changing Environment	Female	156	4.33	0.646	0.052	4.23	4.44	3	5
	Total	325	4.17	0.655	0.036	4.09	4.24	2	5
Decision- Making Skills	Male	169	4.43	0.624	0.048	4.34	4.53	2	5
	Female	156	4.57	0.623	0.050	4.47	4.67	2	5
	Total	325	4.50	0.627	0.035	4.43	4.57	2	5
Motivation	Male	169	4.36	0.789	0.061	4.24	4.47	2	5
	Female	156	4.56	0.571	0.046	4.47	4.65	3	5
	Total	325	4.45	0.699	0.039	4.38	4.53	2	5
Leadership Skills	Male	169	4.33	0.856	0.066	4.20	4.46	1	5
	Female	156	4.31	0.717	0.057	4.20	4.43	1	5

	Total	325	4.32	0.791	0.044	4.23	4.41	1	5
Stress Management Skills	Male	169	4.04	0.934	0.072	3.90	4.18	1	5
	Female	156	4.29	0.829	0.066	4.16	4.43	1	5
	Total	325	4.16	0.893	0.050	4.07	4.26	1	5
Time Management Skills	Male	169	4.30	0.904	0.070	4.16	4.43	1	5
	Female	156	4.58	0.622	0.050	4.49	4.68	2	5
	Total	325	4.43	0.793	0.044	4.35	4.52	1	5
Computer Programming	Male	169	3.67	1.158	0.089	3.49	3.84	1	5
Skills	Female	156	4.02	0.947	0.076	3.87	4.17	1	5
	Total	325	3.84	1.075	0.060	3.72	3.95	1	5
IT Skills	Male	169	3.33	1.209	0.093	3.15	3.51	1	5
	Female	156	3.96	1.071	0.086	3.79	4.13	1	5
	Total	325	3.63	1.186	0.066	3.50	3.76	1	5
Problem Solving Skills	Male	169	4.51	0.609	0.047	4.42	4.61	2	5
	Female	156	4.51	0.714	0.057	4.40	4.63	1	5
	Total	325	4.51	0.660	0.037	4.44	4.59	1	5

who were on the verge of employment on the basis of importance of 10 key employability skills. Not only perceptions of students, but attributes like gender were given due importance. ANOVA (one way) was applied to see whether gender affected the employability skills of respondents or not. The detailed picture of descriptives is given in Table 1.

On the basis of Table 1, it can be said that females gave due importance to most of the skills than males in order of importance such as communication skills (4.95 out of 5), time management skills (4.58 out of 5), decision-making skills (4.57 out of 5), motivation (4.56 out of 5), coping to change with changing environment (4.33 out of 5), stress management skills (4.29 out of 5), computer programming skills (4.02 out of 5), and IT skills (3.96 out of 5). Male respondents gave more importance to leadership skills (4.33 out of 5) than females. However, male and female respondents ranked problem solving skills equally.

To carry out further analysis, the following hypotheses were framed :

Ä **H_{01} :** There is no significant difference between male and female respondents' rating.

Ä **Alternate Hypothesis H_{a1} :** There is significant difference between male and female respondents' rating.

ANOVA (one way) was applied to seek differences in skill gender-wise. The Table 2 shows significant difference among male and female respondents' rating in skills like communication skills (0.005), coping to change with changing environment (0.000), decision- making skills (0.046), motivation (0.009), stress management skills (0.010), time management skills (0.001), computer programming skills (0.003), and IT skills (0.000), which ultimately lead to the rejection of null hypothesis (H_{01}). On the contrary, in case of leadership skills (0.897) and problem solving skills (0.979), there is no significant difference between male and female respondents' rating, which leads to the acceptance of null hypothesis (H_{01}). However, Chithra (2013) also found significant difference between rating of male and female respondents in case of communication skills and basic and advanced computer skills.

Table 2. ANOVA (One-Way)

		Sum of Squares	Degree of Freedom	Mean Square	*F*	Sig.
Communication	Between Groups	0.955	1	0.955	8.056	0.005
Skills	Within Groups	38.276	323	0.119		
	Total	39.231	324			
Cope to Change with	Between Groups	8.385	1	8.385	20.730	0.000
Changing Environment	Within Groups	130.643	323	0.404		
	Total	139.028	324			
Decision- Making Skills	Between Groups	1.557	1	1.557	4.002	0.046
	Within Groups	125.692	323	0.389		
	Total	127.249	324			
Motivation	Between Groups	3.332	1	3.332	6.935	0.009
	Within Groups	155.179	323	0.480		
	Total	158.511	324			
Leadership Skills	Between Groups	0.010	1	0.010	0.017	0.897
	Within Groups	202.710	323	0.628		
	Total	202.720	324			
Stress Management Skills	Between Groups	5.211	1	5.211	6.649	0.010
	Within Groups	253.146	323	0.784		
	Total	258.357	324			
Time Management Skills	Between Groups	6.704	1	6.704	10.985	0.001
	Within Groups	197.124	323	0.610		
	Total	203.828	324			
Computer Programming Skills	Between Groups	9. 971	1	9.971	8.838	0.003
	Within Groups	364.386	323	1.128		
	Total	374.357	324			
IT Skills	Between Groups	32.215	1	32.215	24.587	0.000
	Within Groups	423.213	323	1.310		
	Total	4 55.428	324			
Problem Solving Skills	Between Groups	0 .000	1	0.000	0.001	0.979
	Within Groups	141.187	323	0.437		
	Total	141.188	324			

Policy Implications

(1) The ranking of employability skills by both male and female respondents, who were on the verge of employment, differs on the basis of importance. Skill development needs to vary in case of both males and females. Higher educational institutions and industry should identify their needs and impart training accordingly.

(2) There is a strong need for awareness among Indian graduates to know the employability skills required in the global talent market. Further, it is also necessary to revise the curriculum of different courses in order to meet the requirements of the industry. Educational institutions and professionals of labour market should collaborate to ensure regular supply of talent to the global market.

(3) There is dire need that graduates should develop and improve their employability skills from time to time. Higher educational institutions and employers should collaborate to provide learning experiences that will foster graduating students' development of employability skills.

Conclusion

In the competitive globalized scenario, major concern regarding the present workforce is related to employability skills. Finding employable workers and training workers is the main cause of employers' apprehension. Skill gaps observed in fundamental employability skills raise anxiety of employers who are looking to recruit competent employees for the best advantage to their organizations. Employers regard academic achievements as important but not sufficient to get recruited in their organizations. Soft skills and other attributes like work experience, extra-curricular activities have gained momentum in recent economic environment. In order to sustain in the competitive world, one has to be better equipped with necessary employability skills. In other words, employability skills are not only needed to get a job, but also to keep doing well in the job. Thus, it becomes imperative for all the stakeholders, especially higher educational institutions, employers, governments, and even parents to start training the workforce in line with world-wide standards to improve their quality by enhancing their employability skills so that they can get gainful employment and grow in their organizations.

Limitations of the Study and Scope for Further Research

(1) The study is drawn from a relatively small sample of engineering and management students (on the verge of employment) from three cities of Punjab, that is, Amritsar, Jalandhar, and Ludhiana. The findings as such cannot be generalized to students from other streams. Future studies can consider respondents from other vocational streams and geographical locations to analyze the employability of Indian graduates on a larger scale.

(2) The study is a cross sectional study as it only provides a snapshot of choices, preferences, and opinions at one point of time. In fact, a longitudinal approach considering students from the beginning of their higher studies upto making their career choices will provide more authentic information on employability skills.

(3) While applying ANOVA to check whether gender affected the employability skills of students who were on the threshold of job market, only one attribute, that is, gender was considered to see whether it affected employability skills. Other attributes like background of respondents, age of respondents, etc. can also be considered.

References

Aspiring Minds Assessment Pvt. Ltd. (2010). *National IT/ITES employability study.* Retrieved from https://www.aspiringminds.com/sites/default/files/NATIONAL-EMPLOYABILITY-STUDY-IT-ASPIRINGMINDS.pdf

Atfield, G., & Purcell, K. (2010). *Graduate labour market supply and demand : Final year students' perceptions of the skills they have to offer and the skills employers seek* (FutureTrack Working Paper (4)). London: Higher Education Careers Services Unit.

Barnett, R. (ed.) (2012). *The future university: Ideas and possibilities* (2nd ed.). New York and Abingdon : Routledge, Taylor & Francis Group.

Bawakyillenuo, S., Akoto, I. O., Ahiadeke, C., Aryeetey, E. B., & Agbe, E. K. (2013). *Tertiary education and industrial development in Ghana*. London : International Growth Centre (IGC).

Blom, A., & Saeki, H. (2011). *Employability and skill set of newly graduated engineers in India* (World Bank Policy Research Working Paper No. 5640). DOI: https://doi.org/10.1596/1813-9450-5640

Cai, Y. (2012). Graduate employability: A conceptual framework for understanding employers' perceptions. *Higher Education, 65*(4), 457 - 469. doi: https://doi.org/10.1007/s10734-012-9556-x

Chadha, V. (2008). Stock of technical manpower in India : Prospects of employment in the emerging labour markets. *The Indian Journal of Labour Economics, 51*(4), 831 - 842. Retrieved from http://www.isleijle.org/ijle/IssuePdf/dbf2685f-8094-4285-875e-67e455a6f52c.PDF

Chakrabarty, R. (2016, July 13). Only 7 per cent engineering graduates employable: What's wrong with India's engineers? *India Today*. Retrieved from https://www.indiatoday.in/education-today/featurephilia/story/engineering-employment-problems-329022-2016-07-13

Chithra, R. (2013). Employability skills - A study on the perception of the engineering students and their prospective employers. *Global Journal of Management and Business Studies, 3* (5), 525 - 534.

Clement, A., & Murugavel, T. (2015). English for employability : A case study of the English language training need analysis for engineering students in India. *English Language Teaching, 8* (2), 116 - 125. doi: http://dx.doi.org/10.5539/elt.v8n2p116

Ernst & Young Pvt. Ltd. & FICCI. (2011). *Private sector participation in Indian higher education : FICCI Higher Education Summit 2011*. Retrieved from http://www.ey.com/Publication/vwLUAssets/Private_sector_participation_in_Indian_higher_education/$FILE/Private_sector_participation_in_Indian_higher_education.pdf

Ernst & Young Pvt. Ltd. & FICCI. (2013). *Higher education in India : Vision 2030. FICCI Higher Education Summit 2013*. Retrieved from https://www.ey.com/Publication/vwLUAssets/Higher-education-in-India-Vision-2030/$FILE/EY-Higher-education-in-India-Vision-2030.pdf

Gottfredson, L. S. (1997).Why g matters: The complexity of everyday life. *Intelligence, 24* (1), 79 - 132. doi: https://doi.org/10.1016/S0160-2896(97)90014-3

Harvey, L. (2000). New realities - The relationship between higher education and employment. *Territory Education and Management , 6* (1), 3 - 17.

Hodges, D., & Burchell, N. (2003). Business graduate competencies: Employers' views on importance and performance. *Asia - Pacific Journal of Cooperative Education, 4* (2), 16 - 22.

Johnson, D.W., Bartholomew, K.W., & Miller, D. (2006). Improving computer literacy of business management majors : A case study. *Journal of Information Technology Education, 5* (1), 77 - 94.

Khan, M. (2018). Determinants of muslim female participation in the labour force. *Arthshastra Indian Journal of Economics and Research, 7* (5), 35 - 46. doi: 10.17010/aijer/2018/v7i5/139926

Knight, P. T., & York, M. (2003). Employability and good learning in higher education. *Teaching in Higher Education, 8* (1), 3 -16. doi: 10.1080/1356251032000052294

Krishna, V. (2015). Systemic changes in teaching, learning and evaluation for development of skills and for enhancing employability of students pursuing programs under the commerce faculty. *Tactful Management Research Journal, 10,* 129 - 133. Retrieved from http://oldtm.lbp.world/SeminarPdf/353.pdf

Manpower Group. (2015). *2015 Talent shortage survey*. Retrieved from https://www.manpowergroup.com/wps/wcm/connect/db23c560-08b6-485f-9bf6-f5f38a43c76a/2015_Talent_Shortage_Survey_US-lo_res.pdf?MOD=AJPERES

Othman, Z., Musa, F., Mokhtar, N. H., Ya'acob, A., Latiff, R. A., Hussein, H., Mohammad, A. W., & Kaur, S. (2011). Undergraduate awareness and readiness towards employability: The significance of English. *British Journal of Arts and Social Sciences, 2* (2), 122 - 142.

Paadi, K. (2014). Perceptions on employability skills necessary to enhance human resource management graduates prospects of securing a relevant place in the labour market. *European Scientific Journal, Special Edition, August 2014,* 129 - 143. doi: x.doi.org/10.19044/esj.2014.v10n10p%25p

Pandey, N. (2012). *Awareness of life skills for job sustainability amongst management students.* doi: http://dx.doi.org/10.2139/ssrn.2332134

Rasul, M. S., Ismail, M. Y., Ismail, N., Rajuddin, M. R., & Rauf, R. A. A. (2009). Importance of employability skills as perceived by employers of Malaysian manufacturing industry. *Journal of Applied Science Research, 5* (12), 2059 - 2066.

Raza, S. A., & Naqvi, S. A. (2011). Quality of Pakistani university graduates as perceived by employers: Implications for faculty development. *Journal of Quality and Technology Management, VII* (I), 57 - 72. Retrieved from http://pu.edu.pk/images/journal/iqtm/PDF-FILES/04-facuty%20development%2031-5-11.pdf

Rothwell, A., Jewell, S., & Hardie, M. (2009). Self-perceived employability : Investigating the responses of post-graduate students. *Journal of Vocational Behavior, 75*(2), 152 - 161. doi: https://doi.org/10.1016/j.jvb.2009.05.002

Selvadurai, S., Choy, A., & Maros, M. (2012). Generic skills of prospective graduates from the employers' perspectives. *Asian Social Science, 8* (12), 295 - 303. doi: 10.5539/ass.v8n12p295

Subramanian, D., & Ben, J. B. (2018). The relevance of skill development in the Indian context. *Arthshastra Indian Journal of Economics and Research, 7* (1), 25 - 36. doi: 10.17010/aijer/2018/v7i1/122135

Syed, S. Z., Abiodullah, M., & Yousaf, A. (2014). *Assessing emotional intelligence and interpersonal skills of university students as predictors of employability.* Paper presented at 21st Century Academic forum Conference Proceedings, Harvard. Retrieved from http://docplayer.net/4797299-Assessing-emotional-intelligence-and-interpersonal-skills-of-university-students-as-predictors-of-employability.html

Tomlison, M. (2013). *Education, work and identity: Themes and perspectives.* UK: BloomsBury Publishing.

Tran, T. T. (2010). *Enhancing graduate employability : Challenges facing higher education in Vietnam*. Paper presented at The 14th UNESCO – APEID International Conference : Education for Human Resource Development, Bangkok, Thailand. Retrieved from https://www.researchgate.net/publication/281177307_Enhancing_graduate_employability_Challenges_facing_higher_education_in_Vietnam

US Department of Labor. (2008). *Occupational outlook handbook, 2008.* Washington, D. C.: Bureau of Labour Statistics. Retrieved from https://www.bls.gov/news.release/archives/ooh_12182007.pdf

Williams, A. - M. C. (2015). *Soft skills perceived by students and employers as relevant employability skills*. Walden University Scholarworks, Walden University. Retrieved from https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?referer=https://www.google.co.in/&httpsredir=1&article=2426&context=dissertations

Wye, C. - K., & Lim, Y. - M. (2009). Perception differential between employers and undergraduates on the importance of employability skills. *International Education Studies, 2* (1), 95 - 105. doi: 10.5539/ies.v2n1p95

Yorke, M. (2006). Employability in higher education: What it is - what it is not. *The Higher Education Academy, 9* (2), 14 - 22.

Zaharim, A., Yusoff, Y.M.D., Omar, M.Z., Mohamed, A., Muhamad, N., & Mustapha, R. (2009). Perceptions and expectation toward engineering graduates by employers: A Malaysian study case. *WSEAS Transactions on Advances in Engineering Education, 6* (9), 296 - 305.

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