Perception of Passed Out Engineering College Students Towards Facilities, Amenities and Employability Skills in Coimbatore

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Abstract- **In the competitive environment, the corporate sector has drastically changed their expectations to enhance corporate culture through strong skill sets needed to be excelled to facilitate the corporate settings. Therefore, this study concentrates in identifying the types of skills possessed by the passed out engineering graduates to discharge their campus requirements to make an competitive entry into the corporate environment. . In this regard, skill plays a major role thus, this study considered evaluating passed out graduate engineering students from Coimbatore to observe their perception on employability skills and career outcome. This study is done by considering the passed out engineering graduates from select colleges of Coimbatore district to identify the skill gap between the skill acquired by the students and the industry (job market) expectations. In this regard, educational institutions play a major role by providing academic support. Apart from academic support, job skill aspects are more important to meet job market requirements to acquire a prospective career. Therefore, this study inspires the researcher to ascertain how well do facilities and amenities as well as Employability Skills predict passed out students of select engineering colleges? Simple Random Sampling method was employed in select engineering colleges in which two hundred and fifty passed out student respondents were considered as final sample for the study. Tools used for analysis are percentage analysis and Chi-Square Test. Result shows that there is no statistical association between the age and facilities and amenities, age and employability skills, finally, stream of education and employability skills thus accepting null hypothesis, whereas, there is a statistical association between the gender and facilities and amenities, gender and employability skills and finally, stream of education and facilities and amenities provided by the institutions therefore, rejecting the null hypothesis. It is concluded that facilities and amenities proved considerable support through professional training atmosphere by way of existing means, reasonably helped the students to acquire the practical skills. The objective of the institutions not only created job opportunities through their placement support but also ensures creating leadership qualities or entrepreneurial development qualities among students thus, supporting to alleviate unemployment issues which are the prime situation of the nation.**

Key Words: Students, Engineering Colleges, Job, Training, Employment, Skills, etc.

INTRODUCTION

In the competitive environment, the corporate sector has drastically changed their expectations to enhance corporate culture through strong skill sets needed to be excelled to facilitate the corporate settings. Therefore, this study concentrates in identifying the types of skills possessed by the passed-out engineering graduates to discharge their campus requirements to make a competitive entry into the corporate environment. The number of students pass out every year is raising significantly, not only in India, also globally. In this emerging technological world, it becomes a threat in job openings for the exit candidates due to heavy competition which indeed puts severe pressure among the wards to perform competitively fulfilling the market requirements. In this regard, skill plays a major role thus, this study considered evaluating passed out graduate engineering students from Coimbatore to observe their perception on employability skills and career outcome.

Coimbatore is a major educational hub. The first college of Coimbatore, Government Arts College, was opened in 1875. The first engineering college in the city, the Arthur Hope College of Technology (now known as the Government College of Technology, Coimbatore), was started by G.D. Naidu in 1945 followed later by private engineering colleges PSG

College of Technology and Coimbatore Institute of Technology in the 1950s. The Air Force Administrative College, established in 1949, is the oldest training institute of the Indian Air Force. Coimbatore Medical College was opened in 1966 and also city has another Government run ESIC Medical College. The Government law college started functioning from 1978. The agricultural school established in 1868 was converted into a full-fledged agricultural university Tamil Nadu Agricultural University in 1971 and the Sálim Ali Centre for Ornithology and Natural History was opened in 1990.

Skill: An Overview

A skill is an ability or proficiency of a task that is normally acquired through education, training and/or experience. Skills can be demonstrated, learnt, taught, trained or coached but can only be acquired by performing them. The skills in this study were classified as domain skill and generic skill.

Employability Skills

Employability skill is in fact a skill required in employment. In this regard, employability skill is a group of important skills instilled in each individual in order to create productive workforce. Overtoom (2000) remarked that employability skill is crucial in all professions as well as in education. The preparation to acquire employability skill begins when a person is still in learning process. Thus, SCANS (2000) (Secretary Commission on Achieving Necessary Skills) commission stated that most graduates were yet to have a good knowledge on the basic of occupations.

REVIEW OF LITERATURE

Divya Shukla (2012) focused to identify the level of employability skill among the students. The differences based on the respondents' demography details and to facilitate the suggestive measure in this regard, T-test was used. The study concluded that the redesigning of the university curriculum with more apprenticeship and live industry projects will facilitate the pre job training which will surely enhance the employability among the graduates.

Gowsalya and Ashok Kumar (2015) conducted a study to identify employability skill of final year MBA Graduates and to find the factors of employability skills for them. Four independent Factors have been identified to make a significant impact on the employability skills of management graduates. Findings reveal it is important to learn the Self-understanding, General Management, and work culture, Leadership skills and Computer skills and suggested the institutions should work on the path to develop the said factors of graduates that will best serve the future era.

Employability skills complement the technical skills in order to fulfil a vital role of shaping individuals life (Schulz, 2008). Employability skills are skills that are supposed to be acquired by everybody in the industry. Industrial employers agreed that employability skill is crucial for their employees to be outstanding in their chosen occupation (Soo & Jumma'ayah, 2001). According to Ramlee (2002) some graduates of TVE usually master their technical skills but employers normally feel dissatisfied of their employees when it comes to employability skills because they lacked motivational skills, communication skills, interpersonal skills, critical thinking, and problem solving and entrepreneurship skill.

STATEMENT OF THE PROBLEM

In the modern day era, an understanding of the attitudes in relation to 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. According to Richens (1999), even if a collaborative process between education and industry existed, the structure of education has made it difficult to implement systemic changes. This study is done by considering the passed out engineering graduates from select colleges of Coimbatore district to identify the skill gap between the skill acquired by the students and the industry (job market) expectations. In this regard, educational institutions play a major role by providing academic support. Apart from academic support, job skill aspects are more important to meet job market requirements to acquire a prospective career. Therefore, this study inspires the researcher to ascertain how well do facilities and amenities as well as Employability Skills predict passed out students of select engineering colleges?

OBJECTIVES OF THE STUDY

- To find out the facilities and amenities of the institutions supporting engineering students to acquire employability skills.

METHODOLOGY

The study is descriptive in nature. In formulating the objective of research process, data collected are through Primary data (survey method) and Secondary sources. Structured questionnaire is developed to find the facilities and amenities supporting employability skills among passed out engineering students. Simple Random Sampling method was employed in select engineering colleges in which two hundred and fifty passed out student respondents were considered as final sample for the study. Tools used for analysis are percentage analysis and Chi-Square Test.

LIMITATIONS OF THE STUDY

- The survey includes all the limitations inherent in the questionnaire. The study covers only students opinion but not the opinion of educational institutions or industry.

ANALYSIS AND RESULTS

Table: Age of the Respondents

Age	Frequency	Percent
Upto 23 years	109	43.6
23 to 25 years	82	32.8
More than 25 years	59	23.6
Total	250	100.0

It is observed that 109(43.6%) students belong to the age upto 23 years, 82(32.8%) belong to the age between 23 and 25 years and the remaining 59(23.6%) belong to the age more than 25 years.

Table: Gender of the Respondents

Gender	Frequency	Percent
Male	75	30.0
Female	175	70.0
Total	250	100.0

It is clear that 175(70%) students belong to the female category and 75(30%) belong to the male category.

Table: Stream of Education of the Respondents

Gender	Frequency	Percent
Mechanical	86	34.4
Civil	48	19.2
EEE/ECE	33	13.2
Computer Technology	83	33.2
Total	250	100.0

It is evident that 86(34.4%) participated students completed mechanical engineering, 83(33.2%) passed out students completed computer technology, 48(19.2%) students studied civil engineering and 33(13.2%) students studied EEE / ECE.

Table: Opinion on First Generation Engineer

Opinion	Frequency	Percent
Yes	127	50.8
No	123	49.2
Total	250	100.0

It is found that 127(50.8%) passed out respondents accepted that they are the first generation engineers and an equal proportion 123 (49.2%) stated that they are not the first generation engineers from their family.

TWO-WAY TABLE AND CHI-SQUARE TEST

Demographic variables like Age, gender and stream of education of the passed out students compared with their opinion towards various Facilities and Amenities provided by the institutions such as Library, Digital Library, Video conferencing, E-Learning Facility, Fluency Lab, etc. are the framed as facilities and amenities that is dependent variable predicted to find association using chi-square test.

Hypothesis

H_0-: There is no significant association between Age of the respondents and Facilities and Amenities provided by the institution

H_1-: There is a significant association between Age of the respondents and Facilities and Amenities provided by the institution

Table: Age and Facilities and Amenities provided by the institution

Age	Facilities and Amenities index			Total
	High	Moderate	Low	
Upto 23 years	23	67	19	109
	45.1%	42.4%	46.3%	43.6%
23 to 25 years	17	55	10	82
	33.3%	34.8%	24.4%	32.8%
More than 25 years	11	36	12	59
	21.6%	22.8%	29.3%	23.6%
Total	51	158	41	250
Computed χ^2 value (df) Table Value	χ^2: 1.924 (4); TV=9.488			
Hypothesis Result (Sig.)	Not Significant (0.750)			

It is evident that present passed out students belong to the age upto 23 years opined high (45.1%) level of perception towards facilities and amenities provided by the institutions. Students from the same category (upto 23 years age category) specified moderate (42.4%) and low (46.3%) perception on facilities and amenities provided by the institutions signifying that no significant difference found among the age categories of the passed out students and their opinion on facilities and amenities provided by the institutions during the tenure of their studies. Further chi-square test shows computed χ^2 value = 1.924 (sig.0.750) at four degree of freedom (TV=9.488) ensured that there is no statistical association between the age and facilities and amenities provided by the institutions therefore, accepting the null hypothesis.

Hypothesis

H_0-: There is no significant association between gender of the respondents and Facilities and Amenities provided by the institution

H_1-: There is a significant association between gender of the respondents and Facilities and Amenities provided by the institution

Table: Gender and Facilities and Amenities provided by the institution

Gender	Facilities and Amenities index			Total
	High	Moderate	Low	
Male	17	37	21	75
	33.3%	23.4%	51.2%	30.0%
Female	34	121	20	175
	66.7%	76.6%	48.8%	70.0%
Total	51	158	41	250
Computed χ^2 value (df) Table Value	χ^2: 12.321 (2); TV=5.991			
Hypothesis Result (Sig.)	Significant (0.002)			

It is evident that present passed out students belong male category opined low (33.3%) level of perception towards facilities and amenities while female students opined high (66.7%) level of perception towards facilities and amenities provided by the institutions. Students from the female category specified moderate (76.6%) perception whereas low perception was high (51.2%) among male respondents towards perception on facilities and amenities provided by the institutions signifying that significant difference found among the gender categories of the passed-out students and their opinion on facilities and amenities provided by the institutions during the tenure of their studies. Further chi-square test shows computed χ^2 value = 12.321 (sig.0.002) at two degree of freedom (TV=5.991) indicated that there is a statistical association between the gender and facilities and amenities provided by the institutions therefore, rejecting the null hypothesis.

Hypothesis

H_0-: There is no significant association between stream of education of the respondents and Facilities and Amenities provided by the institution

H_1-: There is a significant association between stream of education of the respondents and Facilities and Amenities provided by the institution

Table: Stream of Education and Facilities and Amenities provided by the institution

Stream	Facilities and Amenities index			Total
	High	Moderate	Low	
Mechanical	11	56	19	86
	21.6%	35.4%	46.3%	34.4%
Civil	11	28	9	48
	21.6%	17.7%	22.0%	19.2%
EEE/ECE	9	16	8	33
	17.6%	10.1%	19.5%	13.2%
Computer Technology	20	58	5	83
	39.2%	36.7%	12.2%	33.2%
Total	51	158	41	250
Computed χ^2 value (df) Table Value	χ^2: 14.404 (6); TV=12.592			
Hypothesis Result (Sig.)	Significant (0.004)			

It is evident that present passed out students studied computer technology opined high (39.2%) level of perception towards facilities and amenities provided by the institutions than the respondents of mechanical & civil engineering streams (21.6%) or EEE/ECE students (17.6%). Students from the computer technology and mechanical engineering had moderately high level of perception (36.7% and 35/4%) perception on facilities and amenities provided by the institutions signifying whereas, students from mechanical engineering opined low level (46.3%) of perception towards facilities and amenities provided by the institutions during the tenure of their studies. Further chi-square test shows computed χ^2 value = 14.404 (sig.0.004) at six degree of freedom (TV=12.592) ensured that there is a statistical association between the stream of education and facilities and amenities provided by the institutions therefore, rejecting the null hypothesis.

TWO-WAY TABLE AND CHI-SQUARE TEST

Demographic variables like Age, gender and stream of education of the passed out students compared with their opinion towards Employability skills during education provided by the institutions such as Basic Skills, Thinking Skills, Resource Skills, Information Skills, Adaptability Skills, Personal Quality Skills and Domain Skills are the dependent variables framed as employability skills predicted to find association using chi-square test.

Hypothesis

H_0-: There is no significant association between Age of the respondents and Employability Skills

H_1-: There is a significant association between Age of the respondents and Employability Skills

Table: Age and Employability Skills

Age	Employability Skill Index			Total
	High	Moderate	Low	
Upto 23 years	16	73	20	109
	47.1%	42.0%	47.6%	43.6%
23 to 25 years	12	58	12	82
	35.3%	33.3%	28.6%	32.8%
More than 25 years	6	43	10	59
	17.6%	24.7%	23.8%	23.6%
Total	34	174	42	250
Computed χ^2 value (df) Table Value	χ^2: 1.268 (4); TV=9.488			
Hypothesis Result (Sig.)	Not Significant (0.867)			

It is proved that present passed out students belong to the age upto 23 years opined high (47.1%) level of perception towards Employability skills provided by the institutions. Students from the same category (upto 23 years age category) specified moderate (42%) and low (47.6%) perception on employability skills provided by the institutions signifying that no significant difference found among the age categories of the passed-out students and their opinion on employability skills provided by the institutions during the tenure of their studies. Further chi-square test shows computed χ^2 value = 1.268 (sig.0.867) at four degree of freedom (TV=9.488) ensured that there is no statistical association between the age and employability skills provided by the institutions therefore, accepting the null hypothesis.

Hypothesis

H_0-: There is no significant association between Gender of the respondents and Employability Skills

H_1-: There is a significant association between Gender of the respondents and Employability Skills

Table: Gender and Employability Skills

Gender	Employability Skill Index			Total
	High	Moderate	Low	
Male	8	46	21	75
	23.5%	26.4%	50.0%	30.0%
Female	26	128	21	175
	76.5%	73.6%	50.0%	70.0%
Total	34	174	42	250
Computed χ^2 value (df) Table Value	χ^2: 9.730 (2); TV=5.991			
Hypothesis Result (Sig.)	Not Significant (0.008)			

It is evident that present passed out students belong male category opined low (23.5%) level of perception towards employability skills while female students opined high (76.57%) level of perception towards employability skills provided by the institutions. Students from the female category specified moderate (73.6%) perception whereas low perception was equally high (50%) among male and female category respondents towards perception on employability skills provided by the institutions signifying that significant difference found among the gender categories of the passed out students and their opinion on employability skills provided by the institutions during the tenure of their studies. Further chi-square test shows computed χ^2 value = 9.730 (sig.0.008) at two degree of freedom (TV=5.991) indicated that there is a statistical association between the gender and employability skills provided by the institutions therefore, rejecting the null hypothesis.

Hypothesis

H0-: There is no significant association between stream of education of the respondents and Employability Skills

H1-: There is a significant association between stream of education of the respondents and Employability Skills

Table: Stream of Education and Employability Skills

Stream	Employability Skills			Total
	High	Moderate	Low	
Mechanical	13	60	13	86
	38.2%	34.5%	31.0%	34.4%
Civil	6	35	7	48
	17.6%	20.1%	16.7%	19.2%
EEE/ECE	5	22	6	33
	14.7%	12.6%	14.3%	13.2%
Computer Technology	10	57	16	83
	29.4%	32.8%	38.1%	33.2%
Total	51	158	41	250
Computed χ^2 value (df) Table Value	χ^2: 1.147 (6); TV=12.592			
Hypothesis Result (Sig.)	Significant (0.979)			

It is clear that present passed out students studied mechanical engineering opined high (39.2%) level of perception towards employability skills provided by the institutions than the respondents of civil engineering, EEE/ECE or Computer Technology streams viz. 17.6%, 14.7% and 29.4% respectively. Students from the mechanical engineering and computer technology had moderately high level of perception (34.5% and 32.8%) on employability skills provided by the institutions whereas, students from mechanical engineering and computer technology also opined low level (38.1% and 38.1%) perception towards employability skills provided by the institutions during the tenure of their studies indicating all respondents from different stream had same level of opinion on employability skills. Further, chi-square test shows computed χ^2 value = 1.147 (sig.0.979) at six degree of freedom (TV=12.592) revealed that there is no statistical association between the stream of education and employability skills provided by the institutions therefore, accepting the null hypothesis.

SUMMARY OF RESULTS

Demography

It is found that

- ✓ 43.6% passed out students belong to the age upto 23 years, 32.8% belong to the age between 23 and 25 years and 23.6% belong to the age more than 25 years.
- ✓ 70% respondents are female and 30% are male.
- ✓ 34.4% participated students completed mechanical engineering, 33.2% completed computer technology, 19.2% studied civil engineering and 13.2% studied EEE / ECE.
- ✓ 50.8% passed out respondents accepted that they are the first generation engineers and 49.2% stated that they are not the first generation engineers from their family.

Perception on Facilities and Amenities

- ✓ It is evident that present passed out students belong to different age categories did not significantly differ in their opinion towards facilities and amenities provided by the institutions during the tenure of their studies. Further chi-square test proved that there is no statistical association between the age and facilities and amenities provided by the institutions therefore, accepting the null hypothesis.
- ✓ It is evident that present passed out students belong different gender (male and female)

categories differed in their opinion towards facilities and amenities provided by the institutions during the tenure of their studies. Further chi-square test indicated that there is a statistical association between the gender and facilities and amenities provided by the institutions therefore, rejecting the null hypothesis.

- ✓ It is evident that present passed out students studied in different streams differed in their opinion towards facilities and amenities provided by the institutions during the tenure of their studies. Further chi-square test shows that there is a statistical association between the stream of education and facilities and amenities provided by the institutions therefore, rejecting the null hypothesis.

Perception on Employability Skills

- ✓ It is evident that present passed out students belong to different age categories did not significantly differ in their opinion towards employability skills provided by the institutions during the tenure of their studies. Further chi-square test proved that there is no statistical association between the age and employability skills provided by the institutions therefore, accepting the null hypothesis.
- ✓ It is evident that present passed out students belong different gender (male and female) categories differed in their opinion towards employability skills provided by the institutions during the tenure of their studies. Further chi-square test indicated that there is a statistical association between the gender and employability skills provided by the institutions therefore, rejecting the null hypothesis.
- ✓ It is evident that present passed out students studied in different streams did not differ in their opinion towards employability skills provided by the institutions during the tenure of their studies. Further chi-square test reveals that there is no statistical association between the stream of education and employability skills provided by the institutions therefore, accepting the null hypothesis.

SUGGESTIONS AND CONCLUSION

The present study significantly helped to evaluate factors supporting employability skills, It is recommended to evaluate how far On the Job Training concepts (OJT) can elevate the employability skills during the students academic tenure. Also researcher strongly recommends the institutions to impart soft skills acquisition, learning skills, improving training methodology based on time space learning aspects and ensuring Job Training Effectiveness that will consistently enhance employability skills. Further, suggestions is to examine the work performance of the students specifically placed in industries after undergoing training shall be longitudinally measured to understand the outcome.

CONCLUSION

It is concluded that facilities and amenities proved considerable support through professional training atmosphere by way of existing means, reasonably helped the students to acquire the practical skills. The objective of the institutions not only created job opportunities through their placement support but also ensures creating leadership qualities or entrepreneurial development qualities among students thus, supporting to alleviate unemployment issues which are the prime situation of the nation. Also, the results have repercussion among students who accepted that all necessary facilities and amenities with professional atmosphere and training support provided by the institutions enhanced their skills to acquire expected job opportunities.

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