

# Assessing the Employability Skills in the Profession of Architecture with Reference to Fresh Graduates and Employers in Maharashtra, India

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Abstract: The National Educational Policy came into effect in 2020 and is considered to play a vital role in developing skill-based education, which will help improve the employability of the graduating students. The paper discusses the perceptions of fresh graduates (i.e., employees) and Employers (i.e., professionals) towards skill development for employment through Architecture Education through the primary data collected. The study is about finding the missing links between employers' expectations towards fresh architecture graduates who graduated in the last 3 years from architectural colleges in Maharashtra. The questionnaire was developed on 5 5-point Likert scale, and the responses were collected from 175 students through Google Forms from the state of Maharashtra. The same data were collected from 289 employers through a set of questionnaires to understand the actual scenario of the industry and the requirements of the essential employability skills to be possessed by the fresh graduates to get them employed in the firms. The data was gathered and statistically analyzed using Statistical Package for Social Sciences (SPSS).

Keywords: architectural education, employers, fresh graduates, employability skills, India

# **1. Introduction**

The main aim of education is to provide young graduates with knowledge and skills to ideally plan their career path. Several studies looked at the employability skills of graduates. The employability skills of fresh graduates vary across different industries and different levels of jobs. Continuous changes in the work environments which are mainly due to new disruptive technologies and the requirement for new skills. Education is regarded as a skill-building activity, and as such, it is equated with the capital-formation process. India, home to over one billion people, boasts the world's third-largest educational system, behind the United States and China. In India, the Union Government and the State Governments share authority over education; the Union is responsible for certain aspects of the system while the states are free to handle others. According to a number of educational experts, higher education has become of lower quality in an attempt to accommodate the diverse range of pupils.

It is believed that architectural education in India will improve the employability of students enrolled in various academic programs. Students' professional skills, such as technical design and drawing, project management, and creative thinking—all of which are highly valued in the industry—are enhanced by architectural education. Through workshops, industry collaboration, guest lectures, six-month internships, and other means, architectural education also gives students real-world experience. A good architectural education should give students the necessary knowledge, expertise, and chances to improve their employability. The curriculum material, however, is criticised for being out of date and heavily relying on rote teaching and learning techniques. Students lament that there is insufficient link between career preparation and employment chances. Many believe they are ill-prepared for the workforce because they pursue degrees that are immaterial. The unemployment rate for graduates is increasing today; in fact, the unemployment rate for workers with secondary education and higher is over six times higher than the jobless rate for workers with only primary education. Finding and training qualified recent graduates are the two biggest issues facing employers today (Chhikara et al., 2025).

When it comes to hiring qualified workers, human resource managers and business owners are very concerned about the skills-gap—the discrepancy between graduates' talents and those required on the job. Employers typically do not want to provide the specialised, job-specific training that those without such skills need, even if they would like to hire individuals who are prepared and eager to work. Leaders in the industry believe that there is a great need to increase the "skills" and "quality" of the workforce. With issues including curriculum, inadequate instructors, low-quality content, and an inefficient testing system, technical colleges don't offer much in the way of job market value.

Therefore, there is a discrepancy between the kinds of abilities that are taught at colleges and those that are needed in the workplace. Finding the employability skills that recent architecture graduates need is the aim of this study. Both academia and business have expressed worry about the employability of architecture graduates and their capacity to meet industry standards once they are employed. Educational institutions are dealing with several issues, such as a lack of qualified professors and uncertainty about what the business needs (Garg & Kamal, 2022). Employability Indeed, having the bare minimum of skills is necessary to get, keep, and succeed in the workplace. One of the barriers to successful work is a lack of employability skills.

One of the most significant hurdles to India's continued economic growth is a skills shortage. In a highly competitive climate, a lack of employability skills among fresh management graduates is a major source of concern worldwide, particularly in India. Currently, in a knowledge economy, development is dependent on employees' knowledge, skills, and abilities, as well as their entrepreneurial excitement, and the profitability of the firm and the nation need such an upgrade. There is no clear definition of employability skills at this time; nonetheless, much research suggests that employability skills are the ability to operate in a range of situations, which assist individuals obtain, maintain, or even can find new jobs. The signs that might be characterised as a collection of employability skills include an individual's knowledge, skills, abilities, traits, and behaviour in addition to their superior technical comprehension and topic knowledge. The usefulness of academic output from higher education institutions to industry must be assessed in light of the shifting global economic landscape, especially in nations like India.

## 2. Literature Review

The graduates' employability and self-empowerment depend on Higher Learning Institutions (HLIs) developing their soft and practical skills. Essential soft skills include teamwork, communication, creativity, problem-solving, information communication technology, and ongoing education (Dacre Pool & Sewell, 2007). The most important general skills in architecture, according to Nigerian employers, academics, and graduates, are high levels of computing proficiency, learning capacity, creativity, analysis and synthesis of concepts and forms, communication skills, practical application of knowledge, critical thinking, trans-disciplinary understanding, decision-making, time management, self-criticism, ethical commitment, and leadership abilities. (Maina, 2016). It was found, nevertheless, that about a quarter of the general abilities taught in architecture school were converted into professional or job-specific talents. These include creativity, fundamental knowledge of the topic or discipline, the capacity to acquire and use knowledge in practice, and proficiency with computers and ICT. Accordingly, those with an architecture bachelor's degree tend to overestimate their general talents, according to a recent survey of employers and fresh graduates (Maina, 2017).

As highlighted by El Mansour and Dean (2016), the job market is evolving, and technology is influencing skills that will be needed in the future. In addition to hard capabilities, employers want workers with soft skills. As a result, there are concerns about graduates' abilities to satisfy employers' demands, which call for further research. According to earlier studies, companies would rather hire recent graduates based on their soft skills and other admirable qualities than on their technical proficiency and academic success. Employers and students may have different opinions about the abilities that improve employability after graduation (Konig, Juric, and Koprivnjak, 2016). Therefore, it is necessary to investigate the employability skills of graduates. Industry expectations typically don't align with the curriculum, which typically consists of 70% theory and 30% practice. (Radermacher & Walia, 2014; Tulsi & Poonia, 2015).

### 3. Research Methodology

This paper is a part of the research study designed for academicians, employers and fresh graduates. This paper tries to find the result of the first objective i.e., "To point out the missing links between the expectations of employers and fresh graduates of Architecture in light of the new education policy." The research was divided into two phases. Phase one encompasses the identification of employability skills required for architecture fresh graduates, which was done using a literature review, to formulate the questionnaire required for this study. The Phase II included a collection of data through a questionnaire from employers and fresh graduates using Google Forms. The approximate population of fresh graduates was around 16800, and Employers (practicing architects) was around 28116. So, the approximate population of the study was around 44916. The questionnaire was developed, and the responses were collected from 175 students who graduated in the last 3 years from their respective Architecture colleges in the state of Maharashtra. The same data were collected from 289 employers through a set of questionnaires to understand the actual scenario of the Industry and the requirements of the essential employability skills to be possessed by the fresh graduates to get them employed in the firms.

The questionnaire survey was divided into 3 categories of information. Part A regarding the demographics which included Gender, Age, highest qualification, and working experience while Part B included different aspects of Employability skills, issues having impact on employability skill development, and the issues causing a gap between student skill development and employment and Part C included the effectiveness of the National Education Policy 2020. The questionnaire was formulated on a 5-point Likert scale. The questionnaire was constructed with the same set of questions but addressed to three types of respondents, namely Employers, Academicians, and fresh graduates. When it comes to employability, employers, academicians, and fresh graduates are key stakeholders of the architecture industry. This paper aims to study the perceptions of employers and fresh graduates from the state of Maharashtra. The independent sample t test was applied to compare the average score of the fresh graduates and the employers with respect to their attitude towards the effectiveness of architecture education for employability. The fresh graduates and employers were assumed as independent groups for the independent sample t test and the estimated average scores of the different statements measuring the effectiveness of architecture education for employability were compared for the independent groups.

# 4. Findings and Discussions

## 4.1 Effectiveness of Architectural Education for Employability

This part understands the attitude of fresh graduates and the employers about their viewpoint on the current education system and the role played by architecture education in enhancing employability skills at the Institute level. The efforts were made to understand their perception whether the current education system is helpful in providing the employability skills to the fresh graduates as per the industry requirements and if the knowledge gained through architectural education would be sufficient for fresh graduates to start with their practice as an Architect or survive in the profession as per the industry requirements. In the study, 175 students who graduated from different colleges and universities in the state of Maharashtra and 289 employer's practicing architecture in the state of Maharashtra were asked about the effectiveness of architecture education for employability. The independent sample t test is applied to compare the average score of the fresh graduates and the employers were assumed as independent groups for the independent sample t test and the estimated average scores of the different statements measuring the effectiveness of architecture education for employability are compared for the independent groups. The following hypothesis is assumed to examine with the help of independent sample t test:

H2a: "There exists a significant difference between the fresh graduates of architecture and the employers regarding their attitude towards the effectiveness of architecture education for employability." The result of the independent sample t-test is reported below in Table 1.

Statements measuring the effectiveness of architecture education for employability	Respondent	N	Mean	SD	T Test	Remark
The existing educational system is fostering the employable skills that the industry/professional needs.	Fresh Graduates	175	1.84	.796	-3.401** (0.001)	Significant Difference found
	Employer	289	2.09	.769		
Employability skills are a necessity for securing the right career opportunities for fresh graduates	Fresh Graduates	175	4.05	.984	674 (0.501)	No Significant Difference found
	Employer	289	4.11	1.095		
The current educational system gives opportunities to flourish in employable skills.	Fresh Graduates	175	2.25	.673	4.914** (0.000)	Significant Difference found
	Employer	289	1.90	.815		
Architectural education has a vital role in finding effective employment for fresh graduates	Fresh Graduates	175	4.24	.534	3.678** (0.000)	Significant Difference found
	Employer	289	4.02	.738		
The knowledge gained from the course will be adequate to start entrepreneurship in the future for fresh graduates	Fresh Graduates	175	2.03	.800	2.322** (0.021)	No Significant Difference found
	Employer	289	1.85	.832		
Architectural education institutions are well-equipped to provide employability skills in accordance with industry expectations	Fresh Graduates	175	1.99	.805	-1.046 (0.296)	No Significant Difference found
	Employer	289	2.07	.893		
Due to the poor performance in architectural education, there is a need for the improvement for the enhancement of employability skills for fresh graduates	Fresh Graduates	175	4.44	.640	7.315** (0.000)	Significant Difference found

Table 1. Effectiveness	of architecture education	for employabilit	v - Independen	t sample t test

Statements measuring the effectiveness of architecture education for employability	Respondent	Ν	Mean	SD	T Test	Remark
	Employer	289	3.98	.684		
There is a gap between skill development of the students and the employment.	Fresh Graduates	175	4.57	.561	7.050** (0.000)	Significant Difference found
	Employer	289	4.12	.728		
Subject's curriculum is enough to satisfy the needs of the job market	Fresh Graduates	175	1.78	.736	-0.005 (0.996)	No Significant Difference found
	Employer	289	1.78	.819		

The result of the independent sample t test supported the hypothesis that "There exists significant difference between the fresh graduates of architecture and the employers regarding their attitude towards the effectiveness of architecture education for employability" in case of six statements out of nine statements measuring the attitude of fresh graduates of architecture and the employers towards the effectiveness of architecture education for employability. The average score of both fresh graduates of architecture and employers are low as they both are not satisfied by the statement that the existing education system is fostering the employable skills that the industry/profession needs although their values are significantly different (t stats =  $-3.401^{**}$ ) for the statement. The mean score of employers (2.09) is found to be significantly higher than the students (1.84) representing a high level of disagreement among the fresh graduates. The low mean score of both employers and fresh graduates shows that they disagree that the existing education system fosters the employable skills that the industry/professional needs. For the 3rd statement that the current educational system gives opportunities to flourish in employable skills, a higher but significant difference (t stats= 4.914\*\*) is found in the attitudes of fresh graduates (mean = 2.25) and the employers (mean = 1.90). The employers are found to have higher disagreement towards the statement that the educational system gives opportunities to flourish in employable skills. The disagreement of employers and fresh graduates for statements 1 and 3 shows that the current education system is lacking in providing the proper employability skills to the students as per the industry requirements, so it is a necessity to make the changes in the current education system. For the 4th statement that the architectural education has a vital role in finding effective employment for fresh graduates, significant difference (t stats  $= 3.678^{**}$ ) is found in the attitude of fresh graduates (mean = 4.24) and employers (mean = 4.02). Although the fresh graduates are found to have significantly higher levels of agreement than the employers about architectural education playing a vital role in finding effective employment for fresh graduates. The mean score of both fresh graduates as well as employers indicates that they agree that architectural education plays a very vital role in finding effective employment for fresh graduates. For the 7th statement, that due to the poor performance in architectural education, there is a need for the improvement for the enhancement of employability skills for fresh graduates, both fresh graduates (mean = 4.44) and employers (mean =3.98) were found highly agree, with a significant level of difference in their attitude (t stats=7.315\*\*). The mean score of both employers and fresh graduates indicates that the poor performance in architectural education needs improvement and changes for the enhancement of employability skills for fresh graduates. For the 8th statement, that there is a gap between the skill development of the students and employment, both fresh graduates (mean = 4.57) and employers (mean = 4.12) were found to highly agree, with significant level of difference in their attitude (t stats=7.050\*\*). The high mean score of both fresh graduates and employers shows that both agree that there is a huge gap between the skill development of students and employment and this gap needs to be reduced making some significant changes in architectural education.

However, the result of the independent sample t-test found similar attitudes of fresh graduates and employers for three statements. For statement 2, employers and fresh graduates were found with similar agreement that employability skills are a necessity for securing the right career opportunities for fresh graduates and the architectural education institutions are not well-equipped to provide employability skills as per the industry expectations. So, it is a necessity for architectural education to make necessary changes as per the current trends and the expectations of the industry. For the 5th statement, that the knowledge gained from the course will be adequate to start entrepreneurship in the future for fresh graduates, both fresh graduates found with the agreement that the knowledge gained from the architecture course will not be adequate to start their own entrepreneurship or practice in the future. In case of the 9th statement, that the subject's curriculum is enough to satisfy the needs of the job market it was found that the employers and fresh graduates had the same level of disagreement and both believe that the subject curriculum is not enough to satisfy the needs of the job market and so this needs to be updated as per the industry requirements and current trends in the job market.

#### 4.2 Skills Necessary to Enhance Employability in Relation to Industry Requirements

In architecture education, certain skills are required by the industry. In the survey, the fresh graduates and the employ-

ers, who participated in the study, were requested to respond about their perceptions towards the different skills required by the industry and enhance employability of the fresh graduates in the industry (Qadir & Kamal, 2022). The twelve skills were identified and included in the questionnaire, to understand the perceptions of employers and fresh graduates for better employability in the industry. The responses received in the survey were compared between the graduates and the employers. The independent sample t-test is applied to compare the average score of the students and the employers regarding their attitude towards the requirement of skills for better employability. The students and employers were assumed as independent groups for the independent sample t-test. The estimated average score of the different statements measuring the necessity of the included skills in architecture education for higher chances of employability are compared for the independent groups. The following hypothesis is assumed to be examined with the help of an independent sample t-test:

H2b: "There exists a significant difference between the fresh graduates of architecture and the employers regarding their attitude towards the requirement of skills in architecture education for enhancing employability"

The result of the independent sample t-test is reported below in Table 2.

Table 2. Skins needed for ennal	neing employability in mu	lustry through architecture educ	cation- independent sample i test

	Respondent	Ν	Mean	SD	T stats (p value)	Remark
Communication skills	Fresh Graduates	175	4.05	.832	-1.613 (0.108)	No Significant Difference found
	Employer	289	4.17	.706		
Critical thinking skills	Fresh Graduates	175	3.86	.768	-1.673 (0.095)	No Significant Difference found
	Employer	289	3.98	.651		
Cognitive/Problem solving skills	Fresh Graduates	175	3.95	.713	-3.507 (0.000)	Significant Difference found
	Employer	289	4.19	.707		
Behavioral skills	Fresh Graduates	175	3.64	.803	-4.725 (0.000)	Significant Difference found
	Employer	289	3.98	.674		
Entrepreneurship skills	Fresh Graduates	175	4.03	.780	$     \begin{array}{r}       1.342 \\       (0.180)     \end{array} $	No Significant Difference found
	Employer	289	3.93	.912		
Leadership skills	Fresh Graduates	175	3.88	.972	-1.981 (0.048)	Significant Difference found
	Employer	289	4.06	.941		
Teamwork skills	Fresh Graduates	175	4.17	.736	-3.598 (0.000)	Significant Difference found
	Employer	289	4.40	.557		
Social skills	Fresh Graduates	175	3.81	.626	-3.901 (0.000)	Significant Difference found
	Employer	289	4.15	.607		
Technical skills	Fresh Graduates	175	4.45	.543	3.476 (0.000)	Significant Difference found
	Employer	289	4.25	.686		
Learning skills	Fresh Graduates	175	4.25	.549	-0.639 (0.523)	No Significant Difference found
	Employer	289	4.28	.590		
Creativity and Innovation skills	Fresh Graduates	175	4.00	.773	-0.899 (0.369)	No Sig Difference found
	Employer	289	4.07	.851		
Self-Management and Development	Fresh Graduates	175	4.14	.833	0.591 (0.555)	No Significant Difference found
	Employer	289	4.09	.833		

The result of the independent sample t-test supported the hypothesis that "There exists a significant difference between the fresh graduates of architecture and the employers regarding their attitude towards the requirement of skills in architecture education for higher employability "and is found to be mix in nature. The hypothesis was supported for six statements however failed to support for another six statements measuring the attitude of fresh graduates of architecture and the employers towards the Skills needed for enhancing employability in industry through architecture education. The mean score of the skills namely Cognitive/Problem solving skills, behavioural skills, leadership skills, teamwork skills, social skills and technical skills, is found to be higher in case of employer responses as compared to responses received by the students. In case of six statements namely communication skills, critical thinking skills, entrepreneurship skills, learning skills, creativity and innovation skills and self-management and development, no significant difference is found in the perception of fresh graduate and employers.

The result reported that the most important skills from the students of architecture from the employer's perspective is Team work skill (mean score = 4.40) whereas the most expected skills from the fresh graduates perspective is Technical skill (mean score = 4.45). The second most important skill as per the employer's perspective and fresh graduates perspective is Learning skills (mean = 4.28 and mean = 4.25). The third important skill as per employer's perspective is Technical skill (mean score = 4.25) whereas fresh graduates consider teamwork skill (mean score = 4.17) as the important skill for enhancing employability.

#### 4.3 Issues That Have an Impact on Employability Skill Development

There are many issues which have an impact on employability skill development and needs to be resolved at the college and institution level in order to improve the employability of the architecture students. The eleven issues were identified and included in the questionnaire for the survey. These issues include Multiple skill requirements as per the industry expectation, Lack of career guidance, Limited excess to use of Technology, Lack of appropriate skills, Inadequate linkages with the industry, shortage of trained teachers, flexibility in course work and its modularity, Lack of equivalence for employment, Lack of proper infrastructure, low exposure of skill development courses and employment and demand and supply fulfilment. In the survey, the graduate students and the employers, participated in the study, were requested to respond about their perceptions towards the different issues that have an impact on employability skill development. The ten statements were included in the questionnaire measuring different issues that have an impact on employability skill development. The responses received in the survey were compared between the graduates and the employers. The independent sample t test is applied to compare the average score of the students and the employers were assumed as independent groups for the independent sample t test. The estimated average score of the different statements measuring the issues that have an impact on employability skill development are compared for the independent groups. The following hypothesis is assumed to examine with the help of independent sample t test:

H2b: "There exists significant difference between the fresh graduates of architecture and the employers regarding their attitude towards the issues that have an impact on employability skill development"

The result of independent sample t test is reported below in Table 3.

	Respondent	Ν	Mean	SD	T stats (p value)	Remark
Multiple skills requirement	Fresh Graduates	175	4.11	.572	0.612 (0.541)	No Significant Difference found
	Employer	289	4.07	.809		
Lack of career guidance	Fresh Graduates	175	3.91	.815	2.209 (0.043)	Significant Difference found
	Employer	289	3.76	.687		
Use of technology	Fresh Graduates	175	3.95	.942	2.561 (0.011)	Significant Difference found
	Employer	289	3.71	.992		
Lack of appropriate skills	Fresh Graduates	175	4.17	.670	-0.854 (0.394)	No Significant Difference found
	Employer	289	4.22	.804		
Inadequate linkages with Industries	Fresh Graduates	175	4.09	.633	1.313 (0.190)	No Significant Difference found
	Employer	289	3.99	.941		
Shortage of trained teachers	Fresh Graduates	175	4.02	.851	1.608 (0.109)	No Significant Difference found

Table 3. Issues that have an impact on employability skill development - Independent sample t test

	Respondent	Ν	Mean	SD	T stats (p value)	Remark
	Employer	289	3.89	.895		
Flexibility of course design, modularity	Fresh Graduates	175	4.07	.716	4.106 (0.000)	Significant Difference found
	Employer	289	3.76	.858		
Lack of equivalence for employment purposes	Fresh Graduates	175	4.13	.719	2.721 (0.007)	Significant Difference found
	Employer	289	3.92	.910		
Lack of Infrastructure	Fresh Graduates	175	3.74	.908	1.895 (0.059)	No Significant Difference found
	Employer	289	3.57	1.056		
Low exposure of skill development courses	Fresh Graduates	175	4.29	.578	0.294 (0.789)	No Significant Difference found
	Employer	289	4.27	.735		

The result of the independent sample t-test supported the hypothesis that "There exists significant difference between the fresh graduates of architecture and the employers regarding their attitude towards the different issues that have an impact on employability skill development" for four statements out of ten included statements measuring the different No diff found. The hypothesis was supported for four statements. In case of the lack of career guidance, the mean score is found to be significantly higher among the young graduates (mean score = 4.11) as compared to the employers (mean scores = 4.07). Similarly, for the use of technology, the mean score is also found to be significantly higher among the young graduates (mean score = 3.95) as compared to the employers (mean scores = 3.71). The mean score for the responses against the statement about the flexibility of course design and modularity, is significant different is also found for the lack of equivalence for employment purposes, where higher mean is found for young employees (mean score = 4.13) as compared to employers (mean score = 3.92). In case of six statements indicating the different issues that have an impact on employability skill development ", "lack of appropriate skills", inadequate linkages with industries", "shortage of trained teachers", "lack of infrastructure" and "low exposure of skill development courses" no significant different is found between the attitude of the employers and young graduates.

### 4.4 Issues Causing a Gap between Student Skill Development and Employment

There may be many reasons creating a gap between student's skill development and employment. The six different possible reasons were figure out from the existing literature and discussions and the pilot study. These reasons are low industry-institute collaboration, lack in understanding of industry expectations, lack of application-based proficiency in skill development, teaching quality, partnership between educational providers, Institutional teaching and learning practices. The perception of the fresh graduates and employers were recorded in the survey towards these reasons mentioned in the questionnaire. In the survey, the graduate students and the employers were requested to respond about their perceptions towards the different issues causing a gap between student skill development and employment. The six statements were included in the questionnaire, indicating the issues causing a gap between student skill development and employment. The responses received in the survey were compared between the graduates and the employers using independent sample t test. The t test compares the average score of the students and the employers were assumed as independent groups for the independent skill development and employment and employment. The students and the employers were assumed as independent groups for the independent skill development and employment are compared for the independent groups. The following hypothesis is assumed to examine with the help of independent sample t test:

H2b: "There exists significant difference between the fresh graduates of architecture and the employers regarding their attitude towards the different issues causing a gap between student skill development and employment".

The result of independent sample t test is reported below in Table 4.

	Respondent	Ν	Mean	SD	T stats (p value)	Remark
Industry- Institute collaboration	Fresh Graduates	175	4.25	.827	-1.232 (0.219)	No Significant Difference found
	Employer	289	4.35	.758		
Lack in understanding of Industry expectation	Fresh Graduates	175	4.33	.872	-2.624 (0.009)	Significant Difference found
	Employer	289	4.52	.607		
Application based proficiency in skill development	Fresh Graduates	175	4.11	.749	-2.834 (0.005)	Significant Difference found
	Employer	289	4.32	.789		
Teaching quality	Fresh Graduates	175	4.15	.591	-1.396 (0.164)	No Significant Difference found
	Employer	289	4.24	.694		
Partnership between educational providers	Fresh Graduates	175	3.85	.784	-3.352 (0.001)	Significant Difference found
	Employer	289	4.10	.780		
Institutional teaching and learning practices	Fresh Graduates	175	4.05	.808	-3.280 (0.001)	Significant Difference found
	Employer	289	4.29	.730		

Table 4. Issues causing a gap between student skill development and employment - Independent sample t test

The result of the independent sample t-test supported the hypothesis that "There exists significant difference between the fresh graduates of architecture and the employers regarding their attitude towards the different issues causing a gap between student skill development and employment" for four statements out of six included statements measuring the different issues causing a gap between student skill development and employment. The hypothesis was supported for four statements. In case of the lack in understanding of industry expectation, the mean score is found to be significantly higher among the employers (mean score = 4.52) as compared to the young graduates (mean scores = 4.33). Similarly, for the application-based proficiency in skill development, the mean score is also found to be significantly higher among the estatement about the partnership between educational providers, is significantly higher for the employers (mean score = 4.10) as compared to the young graduates (mean score = 4.29) as compared to young graduates (mean score = 4.29) as compared to young graduates (mean score = 4.05). In case of two statements indicating the "Industry- Institute collaboration" and "teaching quality" no significant different is found between the attitude of the employers and young graduates.

### 4.5 Effectiveness of National Education Policy 2020

The government of India has introduced a new education policy "National Education Policy 2020" which focuses more on skills-based education. The policy can be effective for the students of architecture. The statements indicating the effectiveness of National Education Policy 2020 were included in the questionnaire and the perceptions of fresh graduates and employers were collected in the survey towards the effectiveness of the new policy mentioned in the questionnaire. In the survey, the graduate students and the employers were requested to respond about their perceptions towards the effectiveness of NEP 2020. The two statements were included in the questionnaire, indicating the effectiveness of NEP 2020. The responses received in the survey were compared between the graduates and the employers using independent sample t test. The t test compares the average score of the students and the employers wrt their attitude towards the effectiveness of NEP 2020. The students measuring the effectiveness of NEP 2020are compared for the independent groups. The following hypothesis is assumed to examine with the help of independent sample t test:

H2b: "There exists significant difference between the fresh graduates of architecture and the employers regarding their attitude towards the effectiveness of NEP 2020".

The result of independent sample t test is reported below in Table 5.

	Respondent	N	Mean	SD	T stats (p value)	Remark
G1.Awareness about National Education Policy (NEP) 2020	Fresh Graduates	175	3.65	.844	-5.358 (0.000)	Significant Difference found
	Employer	289	4.09	.868		
G2. There will be substantial improvement in the quality and career opportunities of fresh graduates after the implementation of NEP in Architecture Education	Fresh Graduates	175	4.09	.749	-2.196 (0.029)	Significant Difference found
	Employer	289	4.25	.767		

Table 5. Skills needed for higher employability in industry for architecture education- Independent sample t test

The result of the independent sample t-test supported the hypothesis that "There exists significant difference between the fresh graduates of architecture and the employers regarding their attitude towards the effectiveness of NEP 2020" for both the statements measuring the effectiveness of NEP-2020. The hypothesis was supported for both the statements. The mean score for the awareness of the NEP -2020 is found to be significantly higher among the employers (mean score = 4.09) as compared to the young graduates (mean scores = 3.65). Similarly, withy respect to the second statement "There will be substantial improvement in the quality and career opportunities of fresh graduates after the implementation of NEP in Architecture Education" the mean score is also found to be significantly higher among the employers (mean score = 4.25) as compared to the young graduates (mean scores = 4.09). Thus, kit can be concluded that the employers are highly aware about the NEP-2020 as compared to the young graduates.

# 5. Conclusions

This paper represented the perceptions of fresh graduates and employers on the importance of different skill sets required for job acquisition. The six most important skills to enhance employability, as per the employer's perception, are teamwork skills, learning skills, technical skills, cognitive/problem-solving skills, communication skills, and social skills. The six most important skills to enhance employability, as per the fresh graduate's perception, are technical skills, learning skills, teamwork skills, self-management and development, communication skills, and entrepreneurship skills. The overall study specifies that there was a gap between the acquired skill by fresh graduates about getting the job and the industry expectations in the desired skill set and there is a huge gap between the skill development of the students and the employment, and the solution to reduce the gap is the need of the hour. According to the fresh graduates and employer responses recorded, the existing educational system is not fostering the employable skills that the industry/profession needs and the current educational system does not give opportunities to flourish in employable skills as the subjects' curriculum is not enough to satisfy the needs of the job market. According to the respondents, Employability skills are necessary for securing the right career opportunities for fresh graduates and architectural education has a vital role in finding effective employment for fresh graduates. Enhancement internship programs with specific learning outcomes should be introduced with clear outcomes related to employability skills. The short-term internship program related to employability skills should be introduced from 1st year onwards. The knowledge gained from the course will not be adequate to start entrepreneurship in the future for fresh graduates, and architectural education institutions are not well-equipped to provide employability skills in accordance with industry expectations. It is advised that employers take an awareness program for final year students on how to prepare for the recruitment drive, because they encounter difficulties hiring candidates due to a lack of desired expertise.

# **References**

- Adedapo Oluwatayo, A. O. (2016). How do Students Perceive their Employability Readiness? International Conference on African Development Issues, Nigeria.
- [2] Al-Matarneh Rana, M. A. (2016). Bridging gaps in architectural education: developing a professional and career-oriented curriculum. Architecture and Planning Journal, 1-14.
- [3] Antiojo, L. P. (2018). Employability of Education Graduates of Cavite State University Naic. Social Science and Humanities Journal, 423-431.
- [4] Budhwar H, D. N. (2020). A Study on Bridging the Gap between Academia and Architecture Practice in India. International Journal of Contemporary Architecture, The New ARCH", 7(4), 128-137.
- [5] Chandavarkar, P. (2013). Architectural Education in India: A Roadmap to Reform. Indian Architect & Builder, 84-91.
- [6] Chhikara H., Brar T. S., Piplani N. and Kamal Arif M. (2025) Analyzing the Employability Potential of Fresh Graduates

of Architecture in India. Architecture Engineering and Science, 6(1), pp.96-102.

- [7] Council of Architecture, COA. (2021). Retrieved from Council of Architecture: https://www.coa.gov.in/architectural institutions.php
- [8] Dacre Pool, L. and Sewell, P. (2007), The key to employability: developing a practical model of graduate employability, Education + Training 49(4), pp. 277-289.
- [9] Dua, S. K. (2014). Scenario of Architecture Education in India. Institutions of Engineers, India Series A, 95(3), pp. 185-194.
- [10] Doyle, S. N. (2016). Between design and digital: bridging the gaps in architectural education. Architecture Conference Proceedings and Presentations. London.
- [11] Garg, K. (2017). A Study of Architectural Education in India: A Critical Review. Shanlax International Journal of Education, 5(1), pp. 5-9.
- [12] Garg, R., Kamal Arif M. (2022). Restructuring Architectural Education Post Covid-19: Professional Practice and Construction Industry Expectations. Architecture and Engineering, pp. 29-41.
- [13] Hozan Latif Rauf, S. S. (2019). Understanding the Relationship between Construction Courses and Design in Architectural Education. International Journal of Recent Technology and Engineering, 3201-3207.
- [14] Ján Legény, R. Š. (2018). Binding architectural practice with education. Global Journal of Engineering Education, 6-14.
- [15] Khan, M. R. (2017). Present Scenario of Architecture Education In India. International Journal for Research in Applied Science & Engineering Technology (IJRASET), 125-131.
- [16] Khodeir, L. M. (2020). Changing skills for Architecture student's employability: Analysis of job market versus architecture education in Egypt. Ain Shams Engineering Journal, 811-821.
- [17] Kitchley, J. (2012). Architectural education and the current professional scenario .Time, Space and People.
- [18] Konig L. S, Juric P. M., Koprivnjak (Graduate Employability: A Gap between Perspectives the Case of Croatia. Advances in Economics and Business 4(10): 525-538, 2016.
- [19] Mari T. S. (2019). Architecture graduate work readiness: The gap between learning and employability. IOP Conf. Series: Materials Science and Engineering.
- [20] Maina, J. J. and Daful, C. K. (2017). Do they measure up? Architecture graduates perception of acquired skills, employers' expectations, and what is obtained. Journal of Research in National Development, 5(1), 153-161.
- [21] Maina, J. J., and Salihu, M. M. (2016), An Assessment of Generic Skills and Competencies of Architecture Graduates in Nigeria, AJETS, 9 (1), 30-41.
- [22] Matsouka, K. and Mihail, D. M., Graduates' employability: What do graduates and employers think?, Industry and Higher Education, 30 (5), 321-326, (2016).
- [23] Mustakeem R. K. (2017). Present Scenario of Architecture Education In India. International Journal for Research in Applied Science & Engineering Technology, 125-131.
- [24] Nadia Charalambous, N. C. (2016). Re-adjusting the objectives of Architectural Education. Higher Education Advances (pp. 375 – 382). València, Spain: Elsevier Ltd.
- [25] Nuryake Fajaryati, B. M. (2019). The Employability Skills Needed To Face the Demands of Work in the Future: Systematic Literature Reviews. Open Engineering, 595-603.
- [26] Panchariya, M. (2019). Experiential learning as a backbone of architecture education. International Journal of Engineering Technology Research & Management, 33-38.
- [27] Prasad, V. (2016). Investigating the contemporary Architecture Education challenges in India. International Journal of Business, Human & Social Sciences, 1055-1058.
- [28] Qadir A., Kamal Arif M. (2022), Role of Traveling in Architectural Education: Visual Impact and Experiential Learning, American Journal of Civil Engineering and Architecture, 10 (1), pp. 23-30.
- [29] Tran, T.T. (2016). Enhancing graduate employability and the need for university-enterprise collaboration.
- [30] Rabang-Alonzo, F. N. (2018). Employment Status of Architecture Graduates of the University of Northern Philippines. UNP Research Journal, 22, 96-109.
- [31] Shannon, S. (2012). I wish for more than I ever get: Employers' perspectives on employability attributes of architecture graduates. +-Australia", Journal of Marketing Education, 39(2), pp. 82-93.
- [32] Sue Cranmer. (2007), Enhancing graduate employability: best intentions and mixed outcomes. 31(2).