Asian And Pacific Economic Review
ISSN: 1000-6052

"A Study on Bridging the Gap between Academic Curricula and Industry Expectations in Mumbai."

[1]Dr. Shabana Gufran Khan, Assistant Professor
[2]Ms. Virti Sanjay Sanghavi, Student
[1,2] SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce and Economics (Empowered Autonomous)

DOI: https://doie.org/10.10399/APER.2025104879

ABSTRACT

Academic curricula differences from industrial demands lower graduates' employment potential while remaining as a major difficulty in the fast-changing global labor market. The current workplace needs require academic education to adjust its standards according to changing technologies and industries. The mismatch between education and workforce needs results in greater difficulties for new graduates to gain employment entry. The issue must be solved to enhance employment readiness and economic growth.

This research seeks to identify significant gaps which exist between academic curriculum competencies and industry demanded capabilities. The study examines how much educational content diverges from industrial needs by analyzing curriculum modernity that prepares students for industrial challenges. This research explores the three key elements affecting this equilibrium disruption including outdated curriculum content, inadequate industrial experience programs and deficient training in soft skills.

The research collects information from students alongside employers and educators and verifies professional standards in numerous sectors of business operations. Educational results demonstrate that learning institutions must adopt adaptive teaching materials while implementing practical student projects and develop more partnerships between academic institutions and business organizations.

The study addresses these problems by offering effective strategies to bridge the gap between academic institutions and corporate enterprises. A workforce capable of facing modern industry needs can be developed when educational institutions implement specific curricula and introduce practical internships while teaching skills directly and developing better policy standards.

Keywords: *Academic-Industry Gap, Curriculum Modernization, Employment Readiness, Practical Training.*

INTRODUCTION

Education is very important to build a country's workforce because it contributes to the workforce in terms of skills and knowledge needed to progress towards the economy. Today, in an era of rapid technological advancement, dynamic labor markets, there is a need for people who not just know, but are also capable of practical skills, critical threshold thinking, problem solving, and agility. Traditional academic curricula generally put the emphasis on theoretical concepts and very little to no exposure to practical applications. Therefore, many graduates lack hands on experience, soft skills and technical knowledge. However, in fields constantly evolving, like information technology, healthcare, finance and engineering, new technologies and methods are constantly being requested, and the problem is much more acute.

The aim of this study is to estimate the scale of the 'academic industry gap' and find the critical factors that contribute to it and suggest solutions to generate an industry relevant education system. This study seeks to achieve that by understanding what the employers expect from an education institution, how effective these education institutions were and most importantly how

technological advancements have affected the education sector. The results of this study will have far reaching implications for students and academic institutions, as well as corporations on the search for skilled personnel, thus promoting economic growth and development of workforce.

Finally, bridging the gap between industry and academia demands unification of efforts such as firms, educational institutions, politicians and students. To encourage modernization in curriculum, school reforms are needed that train skills where governments and regulatory agencies support it; school reforms like this need the advisory boards, guest lectures and collaborative research from businesses. They have to know how important it is to keep learning, to adapt and improve oneself by being good and prepared for any challenge that awaits their entry into the labor market. Collaboration can contribute in developing a more integrated and responsive educational system to empower graduates to fully meet industry's requirements while they positively contribute to gross domestic product (GDP) growth in the capacity of the economy.

SIGNIFICANCE AND RELEVANCE OF THE STUDY

1. This research seeks to establish the weakness of our existing educational system and how solutions to resolve the gap can be established by looking at the space between the academic learning and the needs of a real business system.
2. This study is important in today's technology era due to the ongoing changes in the behavior of labor given the globalization, automation, and digital transformation.
3. This research can provide foundation for institutional reforms, corporate partnerships, and legislative changes that should ultimately lead to more employable and sustainable educational system.

STATEMENT OF THE PROBLEM

This research investigates how academic educational frameworks fall short from Mumbai industrial standards because new graduates possess conceptual knowledge without necessary practical skills, access to industrial environments and soft skills. The disconnect between academic curricula and industrial expectations results in unemployment as well as underemployment and prompts employees to undergo extensive training after hire. The educational system in Mumbai needs to transform itself to stay competitive internationally due to the metropolitan's active job market and changing industrial requirements. The research project investigates particular education gaps through assessments of current industrial-academic collaborations to create flexible solutions that improve education alignment with future and contemporary workplace demands.

OBJECTIVES OF THE STUDY

- **Primary Objective:**

To assess the gap between academic curricula and industry expectations in Mumbai by determining if current educational programs adequately prepare students for employability.

- **Secondary Objectives:**

1. To analyze whether students perceive their academic curriculum as relevant to industry requirements and standards.
2. To assess the impact of practical training, internships, apprenticeships and industry exposure on students' employability.
3. To determine whether students who receive soft skills training, such as leadership, teamwork and communication, feel more prepared for industry challenges than those who do not receive such training.

4. To determine if industry certifications and additional professional courses enhance students' employability.

LIMITATIONS OF THE STUDY

1. While conducting this research, the sample size is a potential limitation faced, as the sample population is not large and diverse enough to represent the broader academic institutions and industry sectors because it is restricted only to the residents of Mumbai.
2. Differences in curricula, teaching methods and industry requirements make it difficult to generalize findings across all academic and professional sectors.

FUTURE SCOPE OF THE STUDY

1. Rather than focusing on a few sectors, the research can look at the skills gap in a range of industries, to provide a comprehensive picture of industry-specific demands.
2. The study can extend beyond Mumbai to examine numerous cities, states or even nations, revealing global best practices and region-specific barriers to aligning academia with corporate objectives.
3. Incorporating suggestions from students, educators, employers, legislators and training institutions broadens the scope and provides a more comprehensive view of the topic.

RESEARCH METHODOLOGY

- **Type of Research:** Exploratory research
- **Population Under Study:** The residents of Mumbai city and suburbs within the age group of 18-60 were selected for the research.
- **Sample Location:** The respondents were the people who were studying or working in different educational institutions or those who were self-employed, salaried and working in different corporate and industrial sectors in Mumbai city and suburbs.
- **Sampling Method:** Convenience sampling method was used for this research as it provided an ease of access to the respondents.
- **Sample Size:** A total of 160 respondents were involved in the collection of primary data from the population.
- **Method of Data Collection:** This research comprises both primary and secondary data.
    - **Primary:** Primary data was collected using a questionnaire and conducting a survey to arrive at a consensus.
    - **Secondary:** Secondary data was collected from online sources such as journals, reports, surveys, newspapers, articles and conference papers.
- **Statistical Methods Used:** The study employs Chi-Square Test.

REVIEW OF LITERATURE

1. Mthuli, S. A., & Singh, N. (2024). The study suggests that introducing industry-driven skills into maritime education courses can improve employability and economic growth.
2. Vrågård, J., Brorsson, F., & Aghaee, N. (2024). According to the authors, the integration of AI at higher education institutions should be done with clear measures, in view of the safety of incorporation and should also develop critical thinking skills, together with AI capacity.
3. Lorenz, B., & Kikkas, K. (2024). The study suggests that introducing challenge-based learning in higher education can bridge the gap between what graduates know from academic learning and what industry will accept of them as more employable.
4. Hernandez, M. A. (2024). In this paper, how collaborative learning environments help promote student's metacognition and self-efficacy, both critical for career readiness, is studied. The conclusions from these findings suggest that interactive learning methodologies should be adopted in educational systems to better address real world workplace needs.

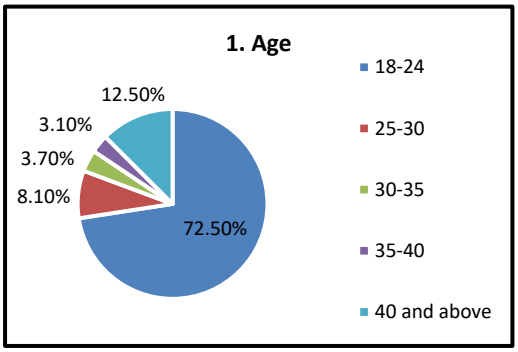
5. Faculty Perceptions of Higher Education. (2024). In this study, the gap between the curricula of higher education and the demands of labor market was assessed, particularly on teacher perceptions of employability. These results provide important evidence to bridge the academic-industry gap and its implications to redesign academic programs to better equip students to be integrated into the process of workforce.
6. Baradaran, R. (2024). This study reveals a skills gap between training and industry expectations in culinary school programs. The report contends that adding internships, hands-on learning and mentorship programs could better prepare students for restaurant careers, resulting in smoother transitions into the industry.
7. Ramdass, K. R., & Mokgohloa, K. (2023). The study examines how globalization, institutional regulations and individual educator methods affect curricular performance. The poll found that flexible, student-centered courses and collaboration between business and academia are crucial for closing the skills gap between graduates and employers.
8. Aghaee, N., & Karunaratne, T. (2023). The study recommends using gamification and digital learning methodologies to boost soft skills training, arguing that interactive simulations can better prepare students for job situations.
9. Brouwers, K., van Lelyveld, W., Takács, E., & Abcouwer, T. (2022). According to the paper, a digital knowledge-sharing platform might help bridge the gap between universities and businesses by ensuring academic programs are relevant to industrial demands.
10. OECD. International Summit on the Teaching Profession. (2023). The study key recommendations include adding digital skills, sustainability and global engagement into higher education courses to ensure students acquire the abilities required in a rapidly developing business.

RESEARCH GAP

Several ongoing academic-industry partnerships still leave significant gaps in practical skill education between educational institutions and industrial organizations of engineering, finance, and hospitality sectors. Research about digital literacy and AI exists but it fails to link curricula with active labor market trends. The effectiveness of internships and apprenticeships remains empirically unproven. Future studies should focus on creating adaptable data-driven educational curricula and strengthening academic-industry alliances and technical and interpersonal skill training systems to fulfill changing labor requirements.

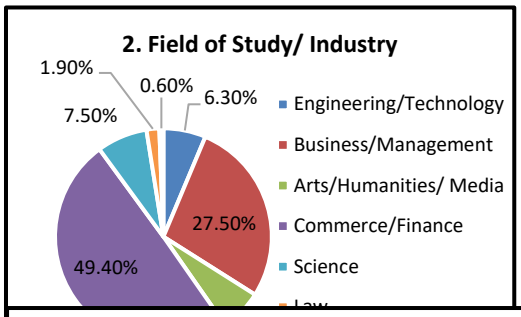
DATA ANALYSIS AND INTERPRETATION

Figure No. 1



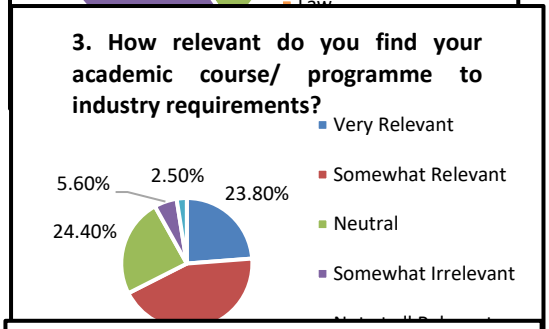
- From the pie chart, it can be seen that out of 160 respondents, 72.50% are from the age group of 18-24, 8.10% from 25-30, 3.70% from 30-35, 3.10% from 35-40 and 12.50% are of the age 40 and above.

Figure No. 2



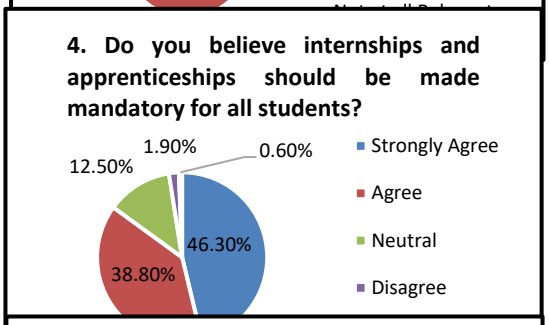
- Out of 160 respondents, 49.40% are from Commerce/Finance, followed by 27.50% in Business/Management.
- Smaller groups are in Science at 7.50%, Arts/Media and Engineering each at 6.30%, while Law and Education have the fewest at 1.90% and 0.60% respectively.

Figure No. 3



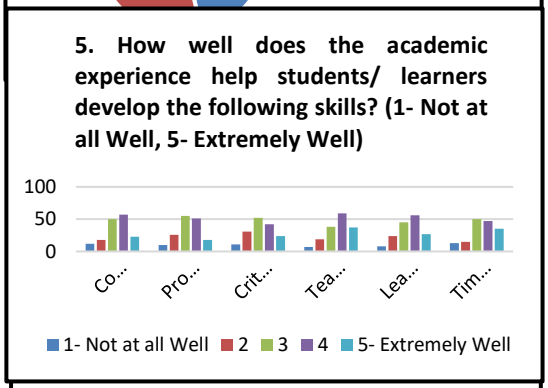
- While 43.80% of the respondents see at least some relevance in their courses, only 23.80% find them very relevant, suggesting room for stronger industry alignment.
- A combined 8.10% find their programs irrelevant, and 24.40% are neutral, pointing to noticeable gaps and mixed perceptions.

Figure No. 4



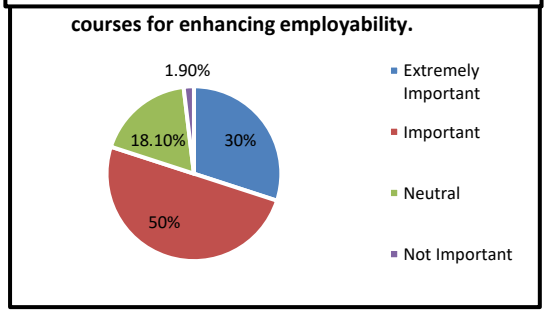
- 46.30% strongly agree and 38.80% agree that internships and apprenticeships should be mandatory, showing strong support
- 12.50% are neutral, while only 1.90% disagree and 0.60% strongly disagree, showing minimal opposition.

Figure No. 5



- Most students rated teamwork, problem-solving, leadership, and time management skills highly, showing strong development in these areas.
- Critical thinking and communication skills received mixed responses, highlighting a need for greater academic focus to meet industry expectations

Figure No. 6



- 50% of the 160 respondents consider certifications and additional training important, and 30% rated them extremely important, showing strong support from 80%.
- 18.10% are neutral, while only 1.90% see them as not important, indicating minimal disagreement.

HYPOTHESIS TESTING

Objective 1: To analyze whether students perceive their academic curriculum as relevant to industry requirements and standards.

Null Hypothesis (H_{01}): The academic curriculum has no significant impact on students' perception of industry relevance.

Alternative Hypothesis (H_{11}): The academic curriculum significantly impacts students' perception of industry relevance.

Q 3. How relevant do you find your academic course/ program to industry requirements?

Table No. 1

Response Category	Observed (O)	Expected (E)	(O - E)	$(O - E)^2$	$(O - E)^2 / E$
Very Relevant	38	32	6	36	1.125
Somewhat Relevant	70	32	38	1444	45.125
Neutral	39	32	7	49	1.531
Somewhat Irrelevant	9	32	-23	529	16.531
Not at all Relevant	4	32	-28	784	24.5
Total	**160**	**160**	-	-	**88.813**

Interpretation: Chi-Square Value (χ^2) is 88.813. Degrees of Freedom (df) = 4 (since there are 5 categories). The p-value is < .00001. The result is significant at $p < .05$. Therefore, the Null Hypothesis H_{01} is rejected.

Conclusion: The academic curriculum significantly impacts students' perception of industry relevance. The responses are not evenly distributed, meaning students have varying opinions on how well the curriculum aligns with industry expectations.

Objective 2: To assess the impact of practical training, internships, apprenticeships and industry exposure on students' employability.

Null Hypothesis (H_{02}): Practical training has no significant impact on students' employability.

Alternative Hypothesis (H_{12}): Practical training significantly impacts students' employability.

Q 4. Do you believe internships and apprenticeships should be made mandatory for all students?

Table No. 2

Response Category	Observed Frequency (O)	Expected Frequency (E)	(O - E)	$(O - E)^2$	$(O - E)^2 / E$
Strongly Agree	74	32	42	1764	55.13
Agree	62	32	30	900	28.13
Neutral	20	32	-12	144	4.50
Disagree	3	32	-29	841	26.28
Strongly Disagree	1	32	-31	961	30.03
Total	160	160			**144.063**

Interpretation: Chi-Square Value (χ^2) is 144.063**.** Degrees of Freedom (df) = 4**.** The p-value is < .00001**.** The result is significant at $p < .05$. Therefore, the Null Hypothesis H_{02} is rejected.

Conclusion: Practical training significantly impacts students' employability. The strong preference for "Strongly Agree" and "Agree" suggests that students overwhelmingly believe that internships and apprenticeships should be made mandatory for all students, reinforcing the importance of practical training for employability.

Objective 3: To determine whether students who receive soft skills training, such as leadership, teamwork and communication, feel more prepared for industry challenges than those who do not receive such training.

Null Hypothesis (H_{03}): Soft skills training has no significant impact on students' industry readiness.

Alternative Hypothesis (H_{13}): Soft skills training significantly impacts students' industry readiness.

Q 5. How well does the academic experience help students/ learners develop the following skills? (1- Not at all Well, 5- Extremely Well)

(i) Communication Skills

Table No. 3

Likert Scale (Rating)	Observed Frequency (O)	Expected Frequency (E)	O - E	$(O - E)^2$	$(O - E)^2 / E$

1 - Not at all Well	12	32	-20	400	12.50
2	18	32	-14	196	6.13
3	50	32	18	324	10.13
4	57	32	25	625	19.53
5 - Extremely Well	23	32	-9	81	2.53
Total	160	160			**50.813**

Interpretation: Chi-Square Value (χ^2) is 50.813**.** Degrees of Freedom (df) = 4**.** The p-value is < .00001**.** The result is significant at $p < .05$. Therefore, the Null Hypothesis H_{03} is rejected.
Conclusion: Communication skills training significantly impacts students' industry readiness. Thus, it proves that soft skills training significantly impacts students' industry readiness.
(ii) Leadership Skills

Table No. 4

Likert Scale (Rating)	**Observed Frequency (O)**	**Expected Frequency (E)**	**O - E**	**$(O - E)^2$**	**$(O - E)^2 / E$**
1 - Not at all Well	8	32	-24	576	18.00
2	24	32	-8	64	2.00
3	45	32	13	169	5.27
4	56	32	24	576	18.67
5 - Extremely Well	27	32	-5	25	0.78
Total	160	160			**44.063**

Interpretation: Chi-Square Value (χ^2) is 44.063**.** Degrees of Freedom (df) = 4**.** The p-value is < .00001**.** The result is significant at $p < .05$. Therefore, the Null Hypothesis H_{03} is rejected.
Conclusion: Leadership skills training significantly impacts students' industry readiness. Thus, it proves that soft skills training significantly impacts students' industry readiness.

Objective 4: To determine if industry certifications and additional professional courses enhance students' employability.
Null Hypothesis (H_{04}): Industry certifications have no significant impact on students' job prospects.
Alternative Hypothesis (H_{14}): Industry certifications significantly impact students' job prospects.
Q 6. Rate the importance of industry certifications and additional professional courses for enhancing employability.

Table No. 5

Category	**Observed (O)**	**Expected (E)**	**(O - E)**	**$(O - E)^2$**	**$(O - E)^2 / E$**
Extremely Important	48	40	8	64	1.6
Important	80	40	40	1600	40.0
Neutral	29	40	-11	121	3.025
Not Important	3	40	-37	1369	34.225
Total	**160**	**160**			**78.85**

Interpretation: Chi-Square Value (χ^2) is 78.50**.** Degrees of Freedom (df) = 3**.** The p-value is < .00001**.** The result is significant at $p < .05$. Therefore, the Null Hypothesis H_{05} is rejected.
Conclusion: This means that students do not perceive all response categories equally and overwhelmingly believe that industry certifications enhance employability. Thus, industry certifications significantly impact students' job prospects.

FINDINGS OF THE STUDY

1. Relevance of Academic Curriculum to Industry Needs: Many respondents think that there is only a moderate connection between their academic programs and the demands of the real world of industry. Although the curriculum imparts sound academic information, it is devoid of the real-world applications that businesses require in the current labor market. Graduates from outdated curricula could not be sufficiently prepared for the demands of the modern workplace, which could cause problems finding work.

2. Practical Exposure & Industry Readiness: Many respondents claim that their schools are not instructing them enough on practical business or real-world business procedures. Internships, live projects, apprenticeships and skill-based seminars are integrated with academic courses sometimes, to limited or insufficient extent. Many feel unable to tackle challenges of their jobs after graduation, because they do not have the opportunities to solve these problems in the real world.

3. Graduate Skills vs. Industry Expectations: Respondents admit that they lack the digital literacy, financial awareness and problem-solving skills that are extremely valued by employers. The educational approach is unduly theoretical and does not cover enough practical skills needed by the industry, which demands such practical problem-solving skills in work situations. The key for academic institutions is to contribute to meeting employer demands by teaching hard skills, digital literacy and soft skills.

DISCUSSION

The research underscores the necessity for institutions to unite academic programs and industry standards by developing a multipronged strategy involving educational institutions, business relations and student interaction. The strong intellectual base of universities fails to provide students with practical skills which generates employment challenges. The resolution of this issue requires universities to work side-by-side with businesses to build educational programs with industry leadership and conduct practical internship and apprenticeship programs. Educational boards together with policymakers need to update school curriculums according to modern industry patterns as well as practical workplace abilities. Students receive better job-readiness through problem-solving education, practical projects and digital literacy training, which in turn minimizes the requirement of corporate training after employment.

SUGGESTIONS

1. Academic institutions should necessitate experiential learning, by requiring all students to participate as interns, apprentices and to be involved in real world industrial initiatives.
2. Regularly reviewing and revising course materials should be entrusted to institutions to set up advisory groups that include representation from business, academia, and government.
3. Students should learn to have great communication, leadership, teamwork, and critical thinking skills to satisfy business demands.
4. Technology changes, employment market trends, and certain skills are necessary, and therefore employers should play an active role in the curriculum development to give information about technological advancements, what is needed in the job market as of today, and what institutions are required to do.

CONCLUSION

This study highlights the significant disconnect between Mumbai's academic curriculum and industry expectations, revealing that while institutions provide theoretical knowledge, students often lack practical training, business exposure, and soft skills. Employers seek graduates with problem-solving, adaptability, leadership, and technical capabilities, yet academic programs rarely integrate industry feedback. Respondents stressed the need for experiential learning,

mandatory internships, and certified industry programs to boost employability. For meaningful change, stronger academia-industry collaboration and curriculum co-development are essential to create a workforce ready for the evolving job market.

REFERENCES

- Mthuli, S. A., & Singh, N. (2024). State-led maritime governance, education, and training nexus in South Africa. Proceedings of the 20th European Conference on Management Leadership and Governance, 401-405.
- Vrågård, J., Brorsson, F., & Aghaee, N. (2024). Generative AI in higher education: Educators' perspectives on academic learning and integrity. Lund University, 15-20.
- Lorenz, B., & Kikkas, K. (2024). From traditional to challenge-based learning: A case study. Tallinn University of Technology, 45-50.
- Hernandez, M. A. (2024). A phenomenological study to determine how expert AVID teachers use collaboration to strengthen student metacognition and self-efficacy. University of Massachusetts Global, 9-14.
- Faculty Perceptions of Higher Education. (2024). Faculty perceptions of factors impacting student employability and higher education curriculum alignment.
- Baradaran, R. (2024). California culinary school graduates' perspectives on their education programs. Walden University.
- Ramdass, K. R., & Mokgohloa, K. (2023). Curriculum design in higher education: A reflection. University of South Africa. Proceedings of the 22nd European Conference on e-Learning, 252-258.
- Aghaee, N., & Karunaratne, T. (2023). Soft skills demand and supply through the lens of higher education students. Lund University & Royal Institute of Technology (KTH), 2-10.
- Brouwers, K., van Lelyveld, W., Takács, E., & Abcouwer, T. (2022). Lifelong learning through knowledge-sharing and digital collaboration. Proceedings of the 23rd European Conference on Knowledge Management, 122-130.
- OECD. (2023). Teaching for the future: Global engagement, sustainability, and digital skills. International Summit on the Teaching Profession, 9-18.