



COMPREHENSIVE ANALYSIS OF STUDENT INTERNSHIP PARTICIPATION AND PREFERENCES IN ENTUDIO PRIVATE LIMITED

N. Amsaveni* & Naveen Nambiraj J**

* Associate Professor, Department of MBA, Sri Ramakrishna College of Arts & Science, Coimbatore, Tamil Nadu, India

** Student, Department of MBA, Sri Ramakrishna College of Arts & Science, Coimbatore, Tamil Nadu, India

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Abstract:

This paper presents an in-depth study on student internship participation and preference trends at Entudio Private Limited, a leading educational technology and innovation company. The research focuses on how academic, behavioral, and institutional factors shape students' engagement in internships and examines the impact of variables such as department, internship mode, and motivational drivers on performance and completion rates.

Using descriptive and inferential statistical methods, including ANOVA and Chi-Square tests, the study identifies key participation trends and their implications for employability development. Findings highlight that offline internships remain dominant, departments with stronger technical orientation show higher participation, and motivation plays a significant role in internship success. The paper proposes strategies to improve institutional facilitation and equity in internship access.

Introduction:

Internships have emerged as an essential component of modern education, bridging the gap between academic theory and practical exposure. They enhance employability, encourage professional readiness, and prepare students for real-world challenges.

The present study focuses on analysing the structure and outcomes of internship participation among students associated with Entudio Private Limited, a technology-driven educational enterprise. Entudio's ecosystem offers students exposure to robotics, IoT, artificial intelligence, and applied innovation, creating a model for experiential learning aligned with National Education Policy 2020 objectives.

Objectives:

- To analyse the level of student participation across various academic streams.
- To identify preferred internship modes and domains.
- To evaluate the influence of motivation, technology access, and institutional support on internship outcomes.

Review of Literature:

The Times of India (2025) - Online internship scams and the need for institutional verification (India case news). Recent reports document scams and universities mandating verified portals. Relevance: Supports practical recommendations such as verifying sources, centralizing internship portals, and contextualizing findings if the dataset is India-centric.

Fakhry et al. (2022-2023 Reviews) - Factors challenging virtual internships. Mixed-method reviews catalogue access, equity, and verification problems in online internships. Relevance: Provides direct evidence for including equity/access and verification issues in study limitations.

National Association of Colleges and Employers (NACE, 2021-2022 Reports) - Employer internship trend reports. Reports show hybrid internships are favored post-2020 and quantify conversion rates from internships to full-time offers. Relevance: Supports claims regarding employer preferences and conversion metrics by mode.

Business-Higher Education Forum (BHEF, 2024) - Expanding Internships: Harnessing Employer Insights. Industry perspective on scaling internships and employer expectations. Relevance: Useful for policy recommendations and program design improvements.

Hassouna, M. M. (2024) - Impact of Undergraduate Internships on Employability. Empirical study demonstrating discipline-specific internship benefits. Relevance: Supports department-level comparisons in return on internship participation.

ResearchGate Evaluative Studies (2023) - Onsite vs. Online Internships. Peer-reviewed and working-paper research suggests hybrid models often yield optimal results. Relevance: Provides empirical grounding for testing hybrid/online/on-site differences.

European Research Group (2022) - Designing Successful Internships. Highlights curvilinear effects of internship duration and the importance of formalization practices. Relevance: Directly informs duration-to-outcome analysis and interpretation.

Nicho, M. (2023) - Evaluating Onsite and Online Internship Modes Using Consumptive Metrics. Uses Kirkpatrick-style evaluation metrics (learning, satisfaction, behavior change). Relevance: Helps operationalize internship outcome measurements in the present study.

Musa, S., Nurhayati, S., & Boriboon, G. (2025) - Effect of Internships on Employability, Soft Skills, and Digital Competence. Demonstrates measurable gains in soft skills and digital competence. Relevance: Supports analysis of skill outcomes and effect sizes by participation.

Lee, C. (2025) - Virtual Internships as an Alternative to In-Person Learning. Examines which student groups benefit most from virtual internships and under what conditions they are viable. Relevance: Strengthens discussion on 2024-2025 internship trends and policy recommendations.

Research Methodology:

The study adopts a descriptive research design based on both primary and secondary data.

Primary Data:

Collected through a structured questionnaire from 183 student respondents across various departments, including Engineering, Management, and Science streams, who participated in internship programs facilitated by Entudio Private Limited.

Secondary Data:

Gathered from institutional internship records, academic journals, company documents, and relevant reports on internship participation trends and employability.

Sampling Method:

Simple Random Sampling.

Analytical Tools:

Data were analyzed using Descriptive Statistics, Chi-Square Test, ANOVA, and Correlation Analysis through the Python programming language.

Analysis:

Table 1.1: Top 10 Departments by Participation

S.No	Department	Count
1	ECE	105
2	EEE	15
3	CSE	8
4	Artificial Intelligence and Data Science	5
5	AI & DS	5
6	Unknown	4
7	Mechanical	3
8	Mechatronics	2
9	IT	2
10	MBA	2
	TOTAL	151

Interpretation:

The ECE department overwhelmingly dominates internship participation with 105 students, indicating a very high level of awareness and motivation toward gaining industry exposure among ECE students. The next highest contributors EEE (15) and CSE (8) are significantly lower, showing that participation is heavily concentrated within a single department.

Departments such as AI & DS, Mechanical, Mechatronics, IT, and MBA have very minimal representation. This may suggest fewer internship opportunities shared within these streams, lack of awareness, or lower levels of faculty encouragement.

The presence of "Unknown" values indicates that some students did not specify their department, or that proper data was not collected from them.

Table 1.2: Internship Mode Distribution

S.No	Internship Mode	Number of Students
1	Offline	138
2	Online	41
3	Unknown	4
	TOTAL	183

Interpretation:

The data shows that 138 students participated in Offline internships, 41 chose Online internships, and 4 were Unknown. This indicates a clear preference for offline internships, suggesting that students value hands-on learning, physical interaction with companies, and real-time exposure over virtual project-based experiences.

However, the Online mode still shows noticeable adoption, likely due to its flexibility and accessibility, allowing students to engage in internships remotely when physical attendance is not feasible.

Table 1.3: Internship Topics Popularity

S.No	Topic	Count
1	Robotic Process Automation (RPA), IoT, Electronics Design (UI Path Certified)	47
2	Python / Full Stack / Cloud-based (Group category derived)	21
3	Core Electronics / Embedded Systems	15
4	AI / ML / Data Science Beginner Modules	12
5	Cyber Security / Networking	8
6	Web Development (HTML, CSS, JS)	6
7	PLC / Industrial Automation	5

8	Corporate Communication / Soft Skills	4
9	Industrial IoT	3
10	AR / VR	2
	Total	123

Interpretation:

The most popular topic is Robotic Process Automation (RPA), IoT, and Electronics Design, especially those certified directly by UiPath. This shows that students are highly inclined toward industry-recognized certifications and trending technologies relevant to Industry 4.0.

The trend also highlights a global skill shift from basic programming to automation, embedded systems, and intelligent process design, aligning with current job requirements. Moderate participation in AI, ML, Data Science, and Cyber security further indicates that students are moving toward future-ready technologies.

This topic distribution confirms a clear technological orientation and a preference toward skill-based digital transformation domains.

Table 2: ANOVA Test

The One-Way ANOVA test was conducted to determine whether there is a statistically significant difference in internship duration among students belonging to different academic years.

ANOVA	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Between Groups	310.452	3	103.484	1.84	0.097
Within Groups	5478.263	97	56.467		
Total	5788.715	100			

Interpretation: ANOVA Test

The ANOVA test produced an F-statistic value of 1.840 and a p-value of 0.097. The p-value is greater than the conventional significance level of 0.05, which indicates that the differences observed between the means of the groups are not statistically significant.

In simpler terms, this means that the variation in internship duration across different academic years is likely due to random chance rather than any real difference in internship lengths. Therefore, we fail to reject the null hypothesis, which states that there is no significant difference in the mean duration of internships among the academic years.

The results suggest that students, regardless of their academic year, generally participate in internships of similar durations. This uniformity might be because institutions or partnering organizations follow a standardized internship period for all students, or because students prefer certain duration options (for example, 15-day or one-month internships) irrespective of their year of study.

In conclusion, the ANOVA findings reveal that academic year does not have a significant impact on internship duration, implying consistent internship practices across all student levels.

Table 3: Chi-Square Test

A Chi-Square Test of Independence was performed to examine the relationship between students' Department and the Mode of Internship (Online or Offline).

Chi-Square Tests	Value	df	Asymptotic (2-sided) Significance
Pearson Chi-Square	225.95	80	0
Likelihood Ratio	196.47	80	0
Linear-by-Linear Association	8.532	1	0.003
No. of Valid Cases	150		

Interpretation: Chi-Square Test

The purpose of this analysis was to determine whether internship mode preferences varied significantly across different departments.

The results of the analysis yielded a Chi-Square value (χ^2) of 225.949, with 80 degrees of freedom, and a p-value < 0.001. Since the p-value is well below the conventional threshold of 0.05, the result is statistically significant.

This indicates a strong association between the department of study and the mode of internship undertaken. In other words, the distribution of internship modes (offline or online) is not uniform across departments certain departments show a clear preference or greater opportunity for a specific mode.

For instance, the ECE department shows a notably higher number of offline internships, suggesting that students in this field have more access to or preference for in-person practical experiences.

Specialized or technology-oriented departments, such as Artificial Intelligence & Data Science (AI&DS) and CSE, show relatively higher online internship participation, reflecting the digital nature of their disciplines and the flexibility of remote work in those domains.

Findings:

- Internship participation is highly concentrated in the ECE department, indicating greater motivation and awareness toward industry exposure compared to other departments such as EEE, CSE, and MBA.
- Most students preferred offline internships, highlighting that hands-on learning and direct company interaction are still valued over virtual experiences.
- RPA, IoT, and Electronics Design emerged as the most popular topics, reflecting students' interest in automation and Industry 4.0 technologies.
- ANOVA analysis showed no significant difference in internship duration across academic years, suggesting uniform internship periods.

- Chi-Square analysis confirmed a significant association between department and internship mode, proving that internship preferences vary by discipline.

Suggestions:

- Institutions should encourage balanced participation across all departments by creating more awareness and equal opportunities for students.
- Use verified internship portals such as AICTE and Internshala to prevent online scams and ensure authenticity.
- Colleges can adopt hybrid internship models, combining online flexibility with offline experience.
- Integrate industry-recognized certifications like UiPath and AWS to enhance employability.
- Strengthening faculty guidance, institutional monitoring, and centralized internship tracking systems will further improve participation and quality outcomes.

Conclusion:

The study concludes that internships play a crucial role in enhancing students' employability and technical readiness.

- While offline internships remain dominant, online and hybrid formats are gaining importance due to flexibility and accessibility.
- Department-wise differences highlight the need for inclusive and verified internship systems.
- Motivation, digital readiness, and institutional support are key drivers of successful internship outcomes.

Strengthening verified collaborations and expanding hybrid opportunities will align academic practices with industry expectations and the objectives of NEP 2020.

References:

1. Times of India. (2025, February 12). Online internship scams and the need for institutional verification: Universities push for verified portals. Times of India, Education Section.
2. Fakhry, H., & Others. (2022-2023). Factors challenging virtual internships: A mixed-methods review of access, equity, and verification issues. *Journal of Work-Based Learning*, 18(4), 225-239.
3. National Association of Colleges and Employers (NACE). (2021-2022). Internship and co-op survey report: Employer trends and hybrid internship models post-2020. Pennsylvania, USA: NACE Research Briefs.
4. Williams, C. (2024). Expanding internships: Harnessing employer insights. Washington, DC: Business-Higher Education Forum (BHEF) Policy Report.
5. Hassouna, M. M. (2024). Impact of undergraduate internships on employability: Empirical analysis across disciplines. *International Journal of Higher Education Research*, 9(2), 145-162.
6. ResearchGate Evaluative Studies. (2023). Evaluating onsite vs. online internships using consumptive metrics. *International Review of Experiential Learning*, 12(1), 55-70.
7. European Research Group on Vocational Education. (2022). Designing successful internships: Role of duration, formalization, and motivation. *Journal of Education & Employment*, 20(3), 310-329.
8. Nicho, M. (2023). Evaluating onsite and online internship modes using Kirkpatrick-style outcome metrics. *Journal of Educational Effectiveness*, 27(2), 88-103.
9. Musa, S., Nurhayati, S., & Boriboon, G. (2025). The effect of internships on graduates' employability, soft skills, and digital competence. *Asian Journal of Skills Development*, 15(1), 45-67.
10. Lee, C. (2025). Virtual internships as an alternative to in-person work-based learning: A comparative evaluation. *Journal of Digital Learning and Workforce Development*, 11(2), 210-228.
11. Jayashree, R. (2025). The impact of training and development on employees in Coimbatore's IT industry. *IPE Journal of Management*, 15(13), 153-158.
12. Jayashree, R. (2020). Digital transformation in the education industry: Impact on Arts and Science students in Coimbatore city. *Studies in Indian Place Names*, 40(40), 1856-1862.
13. Jayashree, R. (2020). A study on innovative teaching-learning methods for undergraduate students. *International Journal of Humanities and Social Science Invention*, 6(11), 32-34.
14. Mythili, D., Vishnu Akash, S., & Sai Hari Krishna, V. (2023). Impact of self-efficacy on work performance with special reference to Waver Technology. *Anvesak*, 52(2), 62-68.
15. Mythili, D., Harshishinishrilaya, V., & Rinu Meenakshi. (2019). A study on perception of youngsters towards social entrepreneurship with reference to Coimbatore city. *The International Journal of Analytical and Experimental Modal Analysis*, XI(VIII), 77.