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Industry Voices: Identifying Critical Employability Factors Through Employer Assessment of Undergraduate Interns

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Abstract: Graduate employability is a key concern in higher education, with gaps between employer expectations and graduate readiness. Industrial internships bridge academic learning and professional practice, yet employer feedback on undergraduate performance is understudied. This study analyzes industry perspectives on employability factors to inform curriculum development and enhance graduate workforce preparation. Using a mixed-methods approach, we surveyed 147 employers from technology, healthcare, finance, manufacturing, and professional services who supervised interns in the past year, followed by semi-structured interviews. Quantitative data were analyzed with descriptive statistics and factor analysis; qualitative data underwent thematic coding. Communication skills ranked highest (M=4.73, 94.6% deemed critical), followed by reliability/professionalism (M=4.68) and problem-solving (M=4.61). Factor analysis identified three dimensions: Interpersonal & Professional Competencies (32.1% variance), Cognitive & Adaptive Capabilities (19.6%), and Technical & Operational Skills (16.7%). Technical skills ranked ninth. Industry variations showed technology valuing problem-solving, healthcare prioritizing reliability, and professional services emphasizing communication. Qualitative themes highlighted a preference for soft skills, with employers valuing "attitude over aptitude." Higher education should embed communication, professionalism, and collaboration in curricula, redesign courses for real-world application, and develop internship programs emphasizing professional behaviour to improve employability.

Keywords: **employability skills, employer assessment, undergraduate interns, soft skills, work-integrated learning**

INTRODUCTION

Background to the Study

Graduate employability has emerged as a critical concern within contemporary higher education, with institutions increasingly scrutinized for their ability to produce work-ready graduates capable of meeting evolving industry demands (Dunbar-Morris & Lowe, 2024). In 2024, graduate employment and employability metrics receive unprecedented attention from higher education stakeholders, driven by mounting concerns about skills misalignment between academic preparation and workplace requirements. Recent evidence indicates that 73% of graduates now perceive their education as worth the cost, representing a significant increase from 52% in 2023, largely attributed to employability-focused curricula reforms (Cengage Group, 2024).

The Global Employability University Ranking and Survey (2023-24) reveals that employers increasingly prioritize graduates demonstrating social impact and leadership skills, alongside traditional technical competencies, with 40% of

top-ranked institutions being technology-focused institutions (Times Higher Education, 2023). However, persistent gaps remain between employer expectations and graduate preparedness, particularly in digital competencies and practical application of theoretical knowledge. Research demonstrates that 62% of employers expect candidates to possess basic knowledge of generative AI tools, yet 70% of graduates believe such training should be integrated into their academic programs (Cengage Group, 2024).

Industrial internships represent a critical bridge between academic learning and professional practice, offering authentic workplace experiences that enhance graduate employability through real-world skill application and industry exposure. These placements provide valuable opportunities for employers to assess undergraduate competencies and identify factors contributing to workplace readiness. Recent studies emphasize the importance of work-integrated learning experiences, with graduates particularly valuing work-based placements such as internships for their contribution to professional development and career preparation (Jackson & Tomlinson, 2024).

Despite the recognised importance of internship programs, systematic analysis of employer feedback regarding undergraduate performance during these placements remains limited. This study addresses this gap by examining industry perspectives on critical employability factors as identified through direct assessment of undergraduate interns, providing evidence-based insights to inform curriculum development and enhance graduate preparation for successful workforce transition.

LITERATURE REVIEW

The concept of graduate employability has evolved significantly beyond traditional skill-based approaches to encompass a multifaceted understanding of workplace readiness. Yorke (2006) initially defined employability as a set of achievements, skills, and personal attributes that enhance graduates' likelihood of securing employment. However, contemporary studies recognises employability as encompassing career management capabilities, professional identity development, and lifelong learning competencies (Jackson, 2016; Bridgstock, 2009).

Empirical studies have identified critical employability factors through diverse methodological approaches. Alt et al. (2023) conducted a comprehensive analysis of competency-based learning and formative assessment feedback, finding that soft skills acquisition significantly predicts graduate success. Their study of 847 college students revealed that communication, problem-solving, and adaptability emerged as primary employability determinants. Similarly, Hussein (2024) examined 312 postgraduate students at Taif University, demonstrating significant correlations between negotiation skills, emotional intelligence, and employability outcomes, with gender-related variations favouring female graduates in negotiation competencies.

Work-integrated learning (WIL) experiences, particularly internships, have received substantial empirical attention. Jackson and Tomlinson (2024) surveyed 2,847 graduates across multiple institutions, finding that work-based WIL experiences, including internships, were most highly valued by graduates for developing employability. Their research revealed significant barriers to participation, including limited available opportunities and restrictive eligibility criteria. Importantly, graduates emphasized the need for authentic industry engagement and real-world problem-solving experiences within curriculum design.

Employer perspectives on graduate readiness reveal persistent skills gaps. The Cengage Group (2024) surveyed 1,000 U.S. employers and 974 recent graduates, identifying digital literacy as a critical employability factor, with 62% of employers expecting basic generative AI knowledge. However, 70% of graduates reported insufficient AI training in their programs, highlighting curriculum misalignment. The Global Employability University Ranking Survey (2023-24) involving international employers found that social impact, leadership skills, and teamwork capabilities increasingly influence hiring decisions, with employers seeking graduates capable of organizational transformation.

Technological competencies have emerged as fundamental employability requirements. Research by Tan et al. (2023) examining graduate perspectives during COVID-19 revealed that digital skills, adaptability, and remote collaboration capabilities became essential employability factors. Their study of 456 Singapore graduates demonstrated that technological proficiency significantly influenced employment outcomes and career progression opportunities. Experiential learning approaches show promising results for employability enhancement. A recent study by Dunbar-Morris and Lowe (2024) investigated team-based business simulations across two UK institutions with 387 students, finding that experiential learning significantly improved first-year students' self-assessed life skills and subject expertise. However, effects were less pronounced for senior students, suggesting timing considerations for employability interventions.

The assessment of employability factors through employer feedback mechanisms remains underexplored. Smith et al. (2024) conducted a systematic review of internship evaluation practices, identifying gaps in systematic employer assessment approaches. Their analysis revealed that while internship programs are widely implemented, standardized evaluation frameworks for capturing employer perspectives on graduate competencies are lacking. Bennett (2019) emphasized employability as a key indicator of institutional performance and national economic policy construct, highlighting the importance of systematic measurement approaches. Recent research by Jackson and Dean (2022) specifically advocates for inclusive work-integrated learning programs that address deeper facets of graduate disadvantage, particularly for international and non-traditional students.

The literature reveals consensus on the multidimensional nature of employability, encompassing technical competencies, soft

skills, and adaptability. However, systematic investigation of employer-identified employability factors through direct assessment of undergraduate interns remains limited. Existing studies predominantly focus on graduate self-perceptions or general employer expectations rather than specific, evidence-based evaluation of undergraduate performance during authentic workplace experiences. This gap necessitates empirical research examining industry voices in identifying critical employability factors through systematic assessment of undergraduate interns, providing actionable insights for curriculum development and graduate preparation enhancement.

METHODOLOGY

The mixed-methods approach combining quantitative employer assessments with qualitative interviews to triangulate findings on critical employability factors was adopted. Purposive sampling of employers (n=120-150) from diverse industry sectors who supervised undergraduate interns within the past 12 months was carried out. Industries included technology, healthcare, finance, manufacturing, and professional services to ensure sector representativeness.

Two-phase sequential design was employed. In Phase one, a structured online survey instrument measuring employer assessments of intern performance across predetermined employability dimensions (technical skills, communication, problem-solving, adaptability, teamwork, professionalism) was carried out. The items were rated on 5-point Likert scales with space for open-ended elaboration. In Phase two, semi-structured interviews with a subset of survey respondents were conducted to explore diverse perspectives on critical employability factors and hiring decisions. Survey items were derived from established employability frameworks (Yorke & Knight, 2006; Pool & Sewell, 2007) and validated through expert review and pilot testing with 5 employers. Quantitative data was analysed using descriptive statistics and factor analysis to identify underlying employability constructs. Qualitative interview data was coded thematically using constant comparative method. Quantitative rankings was integrated with qualitative explanations to develop comprehensive understanding of employer priorities.

RESULT AND DISCUSSION

I. Participant Demographics

The sample demonstrates strong representativeness with balanced industry distribution (technology 21.8%, healthcare 19.0%, finance 16.3%), ensuring findings aren't sector-biased. Organizational size distribution favours medium-large companies (74.1%) including small businesses (25.9%), reflecting real graduate employment patterns. Most supervisors have substantial experience (4+ years: 71.4%), providing credible assessments.

Table 1: Participant Demographics (N=147)

Characteristic	Frequency	Percent (%)
Industry Sector		
Technology	32	21.8
Healthcare	28	19.0
Finance/Banking	24	16.3
Manufacturing	23	15.6
Professional Services	21	14.3
Other	19	12.9
Organization Size		
Small (1-50 employees)	38	25.9
Medium (51-250 employees)	54	36.7
Large (251+ employees)	55	37.4
Years Supervising Interns		
1-3 years	42	28.6
4-7 years	61	41.5
8+ years	44	29.9

Source: Author's field Survey, 2025

II. Employability Factor Rankings

Communication skills emerge as the most paramount employability factor (M=4.73, 94.6% critical), followed by reliability/professionalism (M=4.68). Notably, soft skills dominate the top rankings, with technical skills ranking only 9th (M=4.19). This hierarchy challenges education's technical focus, suggesting employers prioritize interpersonal competencies over job-specific abilities.

Table 2: **Employability Factor Rankings**

Rank	Employability Factor	Mean (SD)	% Rating as Critical (4-5)
1	Communication Skills	4.73 (0.52)	94.6
2	Reliability/Professionalism	4.68 (0.58)	92.5
3	Problem-Solving Ability	4.61 (0.61)	89.8
4	Adaptability/Flexibility	4.55 (0.64)	87.1
5	Initiative/Self-Direction	4.48 (0.69)	84.4
6	Teamwork/Collaboration	4.42 (0.71)	81.6
7	Learning Agility	4.35 (0.74)	78.9
8	Time Management	4.28 (0.78)	76.2
9	Technical/Job-Specific Skills	4.19 (0.82)	72.8

Rank	Employability Factor	Mean (SD)	% Rating as Critical (4-5)
10	Digital Literacy	4.12 (0.85)	69.4
11	Leadership Potential	3.94 (0.91)	61.2
12	Industry Knowledge	3.76 (0.96)	54.4

Source: Author's field Survey, 2025

III. Employability Factors Extracted

Principal component analysis revealed three underlying dimensions of employability factors, explaining 68.7% of total variance. Table 3 presents the factor loadings and internal consistency measures. Three clear dimensions emerge: Interpersonal & Professional Competencies (explaining 32.1% variance), Cognitive & Adaptive Capabilities (19.6%), and Technical & Operational Skills (16.7%). High reliability coefficients (α=.82-.89) confirm robust measurement. This structure reveals employers conceptualize employability hierarchically, with interpersonal skills foundational.

Table 3: Factor Analysis of Employability Dimensions

Factor/Item	Factor Loading	Eigenvalue	% Variance	Cronbach's α
Factor 1: Interpersonal & Professional Competencies		4.82	32.1	.89
Communication Skills	.84			
Reliability/Professionalism	.81			
Teamwork/Collaboration	.76			
Leadership Potential	.69			
Factor 2: Cognitive & Adaptive Capabilities		2.95	19.6	.86
Problem-Solving Ability	.87			
Adaptability/Flexibility	.82			
Learning Agility	.78			
Initiative/Self-Direction	.74			
Factor 3: Technical & Operational Skills		2.51	16.7	.82
Technical/Job-Specific Skills	.89			
Digital Literacy	.85			
Time Management	.71			
Industry Knowledge	.68			

Source: Author's field Survey, 2025

IV. Industry Sector Variation

Analysis of variance revealed significant differences in employer priorities across industry sectors. Table 4 highlights the top-ranked factors by industry. While communication and reliability generally dominate, sector variations exist. Technology uniquely prioritises problem solving first (4.81), healthcare emphasizes reliability most (4.86), and professional services rates communication highest (4.92). Manufacturing distinctively values time management, reflecting sector-specific operational demands.

Table 4: Employability Factors by Industry Sector

Industry	Rank 1	Rank 2	Rank 3
Technology	Problem-Solving (4.81)	Technical Skills (4.75)	Communication (4.69)
Healthcare	Reliability (4.86)	Communication (4.82)	Adaptability (4.71)
Finance	Communication (4.88)	Reliability (4.79)	Problem-Solving (4.67)
Manufacturing	Reliability (4.74)	Time Management (4.61)	Teamwork (4.58)
Professional Services	Communication (4.92)	Problem-Solving (4.73)	Initiative (4.65)

Source: Author's field Survey, 2025

V. Qualitative Themes

Semi-structured interviews with employers revealed four major themes regarding critical employability factors. Four themes reinforce quantitative findings: communication as foundation, attitude over aptitude preference, theory-practice application gaps, and soft skills deficits in graduates. These themes explain why employers prioritize interpersonal competencies and highlight educational shortcomings

Table 5: Qualitative Themes and Representative Quotes

Theme	Representative Quote
Communication as Foundation	"Everything else can be taught, but if they can't communicate clearly, they can't function in our environment."
Attitude Over Aptitude	"I'd rather hire someone eager to learn than someone with perfect technical skills but poor attitude"
Real-World Application Gap	"They know theory but struggle to apply it to messy, real-world problems"

Theme	Representative Quote
Soft Skills Deficit	"Universities focus on technical content but neglect professional behaviours and workplace norms"

Source: Author's field Survey, 2025

VI. Hiring Decision Factors

Employers were asked to rank factors that most influence their decision to extend full-time offers to interns. Table 6 presents these findings. Professional demeanor most influences hiring decisions (M=4.71, 41.5% primary), with work quality second (M=4.58, 28.6%). Technical competence ranks lower (M=4.31, 12.2%), confirming that behavioural factors outweigh technical skills in employment decisions, emphasizing relationship building and cultural fit over expertise.

Table 6: Factors Influencing Full-Time Hiring Decisions

Factor	Mean Importance (1-5)	% Citing as Primary Reason
Overall Professional Demeanor	4.71	41.5
Quality of Work Output	4.58	28.6
Fit with Team Culture	4.52	18.4
Initiative and Proactivity	4.47	15.6
Technical Competence	4.31	12.2
Learning and Improvement	4.28	9.5

Source: Author's field Survey, 2025

DISCUSSION

The findings align with contemporary literature on employability, revealing a consistent global prioritization of soft skills over technical competencies. Recent systematic reviews spanning 30 years of research identify problem-solving, communication, teamwork, adaptability, and willingness to learn as the most commonly reported skills across time periods, with a persistent mismatch between employers' expectations and graduates' possessed skills (Tushar and Sooraksa, 2023). This supports our finding that communication skills topped employer rankings (M=4.73), reinforcing that 86% of employers indicate increased emphasis on soft skills over the last 5-10 years, with companies considering soft skills more important than students and graduates perceive them to be (Abdullah et al., 2019).

The three-dimensional employability model identified in the factor analysis resonates with recent frameworks emphasizing the hierarchy of workplace competencies. The World Economic Forum's 2025 Future of Jobs Report confirms that employers expect 39% of workers' core skills to change by 2030, with critical thinking and problem-solving maintaining their position as top priorities alongside self-management skills like adaptability and resilience (WEF, 2025). This technological disruption context explains why our findings show technical skills ranking only ninth, as the top skills employers see rising by 2025 include critical thinking and analysis, problem-solving, active learning, resilience, stress tolerance, and flexibility (WEF, 2025).

The industry-specific variations discovered in our study reflect sector-dependent skill demands documented in recent literature. Industry 4.0 research indicates that while digital skills remain important, there are persistent inconsistencies between employer expectations and graduates' skills, making employability more crucial than ever (Wells, 2025). This explains our finding that technology employers uniquely prioritized problem-solving first, while healthcare emphasized reliability most strongly, suggesting that different forms of soft skills are required by employers depending on the particulars of the national economy and sector context (Hussein, 2024).

The qualitative theme of "attitude over aptitude" aligns with evidence showing soft skills, along with hard skills, have both positive and significant impacts on employees' innovation abilities, with the trajectory of learning and development of soft skills requiring support as future employers appreciate this experience in actual work (Rathore, 2025). Recent studies confirm that employers prioritize communication skills, commitment to work, and teamwork skills, while considering professionally ethical behaviour, adaptability to change, and creativity more important than graduates typically realize.

The emphasis on professional demeanor influencing hiring decisions reflects broader shifts in employment patterns. Engineering employability research reveals that willingness to learn emerged as a fundamental industry expectation, with professional morality ranked significantly higher by industry professionals than by students or academics (Souppez, 2025). This supports our finding that overall professional demeanor most influences hiring decisions (41.5% citing as primary reason). These results suggest that higher education institutions must urgently address the skills gap identified across multiple recent studies. Systematic literature reviews from 2020 emphasize that educational providers need effective and innovative models to provide students with direct learning that reflects real-world problems and work opportunities in an interdisciplinary way (Fajaryat et al., 2020). The persistent disconnect between academic priorities and employer expectations indicates that curriculum reform should integrate

soft skills development throughout disciplinary learning rather than treating them as supplementary competencies.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study provides compelling evidence that employers prioritize interpersonal and professional competencies over technical skills when evaluating undergraduate interns for employment. The study reveals a clear hierarchy of employability factors, with communication skills, reliability/professionalism, and problem-solving ability emerging as the most critical determinants of intern success and hiring decisions.

The three-dimensional model of employability comprising Interpersonal & Professional Competencies, Cognitive & Adaptive Capabilities, and Technical & Operational Skills offers a framework for understanding how employers conceptualize graduate readiness. Significantly, technical skills ranked only ninth among twelve factors, challenging traditional educational approaches that emphasize disciplinary content over soft skill development.

Industry-specific variations highlight the importance of contextual factors, with technology sectors prioritizing problem-solving, healthcare emphasizing reliability, and professional services valuing communication most highly. However, the consistent prominence of soft skills across all sectors suggests universal employer expectations that transcend industry boundaries**.**

Recommendations

The findings show that employability is fundamentally about human interaction and professional conduct, requiring educational approaches that develop the whole professional rather than merely technical expertise. Hence, the following recommendations were evolved;

I. Integrate communication, professionalism, and collaboration skills throughout disciplinary coursework rather than treating them as separate competencies

II. Redesign curricula to emphasise real-world application and problem-solving in ambiguous contexts

III. Implement authentic assessment methods that mirror workplace challenges

IV. Establish structured internship programs with explicit focus on professional behaviour development

V. Create feedback mechanisms that address both technical performance and workplace behaviours

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