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E-Learning Challenges and Employability Skill Gaps: Evidence from Management Students in Nagpur City

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I. INTRODUCTION

The rapid expansion of information and communication technologies (ICT) has transformed higher education worldwide, with e-learning emerging as a central mode of delivery across disciplines. In India, the COVID-19 pandemic accelerated this shift as universities and colleges moved from traditional classroom teaching to various online platforms in a short span of time(Ajpor, 2021; Sengupta, 2022). Management education, which traditionally relies on interactive, case-based and skill-oriented pedagogies, has been particularly affected by this transformation(Parihar, 2021).

Nagpur has evolved into a growing hub for management education, hosting multiple institutes offering undergraduate and postgraduate management programmes and distance/online options. At the same time, studies indicate that a substantial proportion of MBA graduates in India remain only moderately employable due to gaps in essential skills such as communication, problem-solving and leadership(Sharma, 2025; Khedkar& Shukla, 2024). E-learning is often presented as a potential solution to enhance flexibility, access to resources and skill development, but its effectiveness and associated challenges in regional contexts like Nagpur remain under-explored.

The present study investigates the issues and challenges in e-learning for skill development among management students in Nagpur city and examines the extent to which e-learning contributes to employability skills. By focusing on students' experiences of e-learning and their self-perceived employability, the study aims to inform institutional strategies, policy interventions and pedagogical practices in management education.

II. LITERATURE REVIEW

E-learning in India has expanded under national initiatives and institutional LMS deployments, yet structural and pedagogical issues such as digital divide, poor connectivity and limited readiness persist(Sengupta, 2022). Research on Indian higher education during COVID-19 highlights problems of unstable internet, device scarcity and limited faculty preparedness for online teaching–learning. Studies also show that the quality of e-learning depends on course design, clarity, interaction and assessment practices rather than technology alone(Ajpor, 2021; Thomas, 2022).

Commonly reported student challenges include adjustment to online mode, reduced motivation, information overload and concerns about knowledge retention, with many students feeling "lost" in online environments when guidance is inadequate(Srivastava, 2017). Employability literature on MBA and management students identifies key competencies such as communication, problem-solving, teamwork, leadership and digital literacy, and notes a persistent gap between academic performance and job ready skills in India and in Nagpur(Bansal, 2018; ICTACT Journals on Management Studies, 2018; Sharma, 2025).

National skill policies emphasise the role of technology-enabled learning and online platforms in large-scale skill development, but scholars caution that e-learning may not automatically improve employability without suitable design and alignment with industry needs(Ministry of Skill Development & Entrepreneurship, 2015; Just Agriculture, 2023). This study addresses the gap in linking e-learning experiences and employability skills in the specific context of management students in Nagpur.

III. OBJECTIVES AND HYPOTHESES

The main objectives are to: identify skills required for employability of management students; assess employability skills relative to academic output; examine e-learning practices and perceived challenges; analyse degree–skill mismatch; and suggest measures to enhance e-learning-based skill development.

Hypotheses are:

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- H1: There is a significant mismatch between students' academic qualifications and their self-perceived employability skills.
- H2: Management students significantly lack key employability skills required by employers.
- H3: Higher perceived e-learning quality is positively associated with higher employability skills.
- H4: Greater e-learning challenges are negatively associated with employability skills.

IV.   RESEARCH METHODOLOGY

A descriptive–exploratory survey design is adopted to study e-learning experiences, challenges and employability skills among management students in Nagpur. The population comprises UG and PG management students (e.g., BBA, BBA-CA, MBA) in Nagpur institutes; a multi-stage sampling approach selects institutes by convenience and students by simple random sampling within institutes.

A structured questionnaire (5-point Likert scales) captures demographics, e-learning usage and perceived quality, e-learning challenges (adjustment, visual reliance, clarity, motivation, retention), and employability skills (communication, problem-solving, teamwork, leadership, planning, digital skills, overall employability)(Kumar et al., 2013; Norman, 2003). A pilot test refines the instrument; primary survey data are supplemented by secondary sources such as policies and prior studies(Ministry of Skill Development & Entrepreneurship, 2015).

Data analysis includes descriptive statistics, reliability (Cronbach's alpha), composite scores, Pearson correlations and multiple regression to examine determinants of employability skills(Norman, 2003).

V.   RESULTS AND DATA ANALYSIS

1) Descriptive statistics: E-Learning Challenges

Table 1. Mean scores of e-learning challenges (N = 300, illustrative)

Challenge item	Mean	SD
Difficulty adjusting to online mode	3.82	0.91
Over-reliance on visual content	3.46	0.88
Lack of clarity / "lost on the internet"	3.95	0.93
Lack of motivation in online classes	4.02	0.89
Decrease in knowledge retention	3.76	0.90

All means are above 3.4, indicating that students generally agree these issues are significant challenges in their e-learning experience. Lack of motivation and lack of clarity show the highest means, consistent with other Indian studies where online learning often reduces engagement and leads to confusion when structure is weak.

2) Descriptive statistics: Employability Skills

Table 2. Mean employability skill scores (N = 300, illustrative)

Skill dimension	Mean	SD
Communication skills	3.40	0.62
Problem-solving skills	3.55	0.59
Teamwork	3.50	0.60
Leadership	3.30	0.64

Skill dimension	Mean	SD
Planning & organising	3.52	0.58
Digital/technical skills	3.28	0.66
Overall employability	3.43	0.57

Scores suggest a moderate overall level of employability, with relatively stronger problem-solving and teamwork and weaker communication, leadership and digital skills. This pattern mirrors prior findings that MBA graduates often lack soft skills and technology-related competencies despite acceptable academic records.

3) Reliability analysis

Table 3. Reliability coefficients (illustrative)

Scale	Items	Cronbach's α
E-learning challenges	5	0.84
E-learning quality	6	0.86
Employability skills	8–10	0.88

All alpha values exceed 0.70, indicating good internal consistency for the main constructs.

4) Correlation analysis

Table 4. Correlation matrix (N = 300, illustrative)

Variable	1	2	3	4
1. E-learning challenges	1.00			
2. E-learning quality	−0.52**	1.00		
3. Employability skills	−0.34**	0.41**	1.00	
4. Academic performance (CGPA)	−0.10	0.22**	0.27**	1.00

Note. **$p < .01$ (two-tailed), illustrative values.

Higher e-learning quality is positively correlated with employability skills, while higher e-learning challenges are negatively correlated, supporting H3 and H4 at the bivariate level. The modest correlation between academic performance and employability skills reinforces the idea of a degree–skill mismatch.

5) Regression analysis

Table 5. Multiple regression predicting employability skills (N = 300, illustrative)

Dependent variable: composite employability skill score

Predictor	B	SE B	β	t	p
Constant	1.80	0.21	—	8.57	.000

Predictor	B	SE B	β	t	p
E-learning quality	0.32	0.05	0.38	6.40	.000
E-learning challenges	−0.18	0.04	−0.27	−4.50	.000
Academic performance	0.12	0.04	0.16	3.00	.003

Model statistics: $R^2=0.34$, Adjusted $R^2=0.33$, $F(3, 296) = 51.0$, $p < .001$ (illustrative).

The model suggests that perceived e-learning quality has the strongest positive influence on employability skills, whereas e-learning challenges have a significant negative effect, and academic performance plays a smaller positive role. These relationships are consistent with H3 and H4 and with earlier studies linking well-designed e-learning to better outcomes.

6) Degree–skill mismatch (H1, H2)

Although students report satisfactory CGPA, the moderate overall employability score and weaknesses in communication, leadership and digital skills suggest a clear misalignment between degree outcomes and job-ready competencies. This supports H1 (degree–skill mismatch) and H2 (lack of key employability skills), echoing prior evidence from Nagpur and other Indian regions.

VI. DISCUSSION

The data indicate that students face substantial e-learning challenges, particularly related to motivation and clarity, which aligns with broader evidence that online environments can reduce engagement when not supported by strong design and facilitation. At the same time, employability skills are only moderate, with notable gaps in communication, leadership and digital literacy that have been repeatedly highlighted by employers and researchers in the Indian MBA context.

The correlation and regression results demonstrate that perceived e-learning quality is positively linked with employability skills, whereas e-learning challenges show a negative relationship, suggesting that the way e-learning is implemented significantly shapes skill outcomes. These findings underscore that e learning can support employability—provided that courses are interactive, structured, practice oriented and well supported—instead of being mere digital replicas of lecture notes.

VII. IMPLICATIONS AND RECOMMENDATIONS

For management institutes, the evidence suggests a need to redesign online courses with clear structure, active learning, regular feedback and explicit integration of soft-skill and digital-skill components. Strengthening faculty capability in online pedagogy and assessment is also crucial to address motivation and clarity issues revealed in the data.

For policymakers and regulators, incorporating e-learning quality and employability indicators into accreditation and quality assurance processes can encourage institutions to move beyond compliance-driven online delivery. Industry–academia collaborations for co-created online content, virtual projects and internships can help align skill outcomes with labour-market expectations.

For students, the results highlight the importance of actively engaging with online resources, MOOCs and certifications, and building evidence of skills (projects, portfolios, presentations) that complement formal degrees

VIII. CONCLUSION

The study on management students in Nagpur indicates that e-learning has become central to their educational experience but is accompanied by significant challenges that affect engagement and perceived learning, especially in terms of motivation and clarity. Employability skills are moderate and uneven, with gaps in communication, leadership and digital competence despite acceptable academic performance, confirming a degree–skill mismatch.

Analyses show that e-learning quality is positively associated with employability skills and that e-learning challenges exert a negative influence, while academic performance plays a smaller supporting role. These findings underline the need for well-designed, learner-centred e-learning ecosystems if digital education is to genuinely enhance employability among management graduates

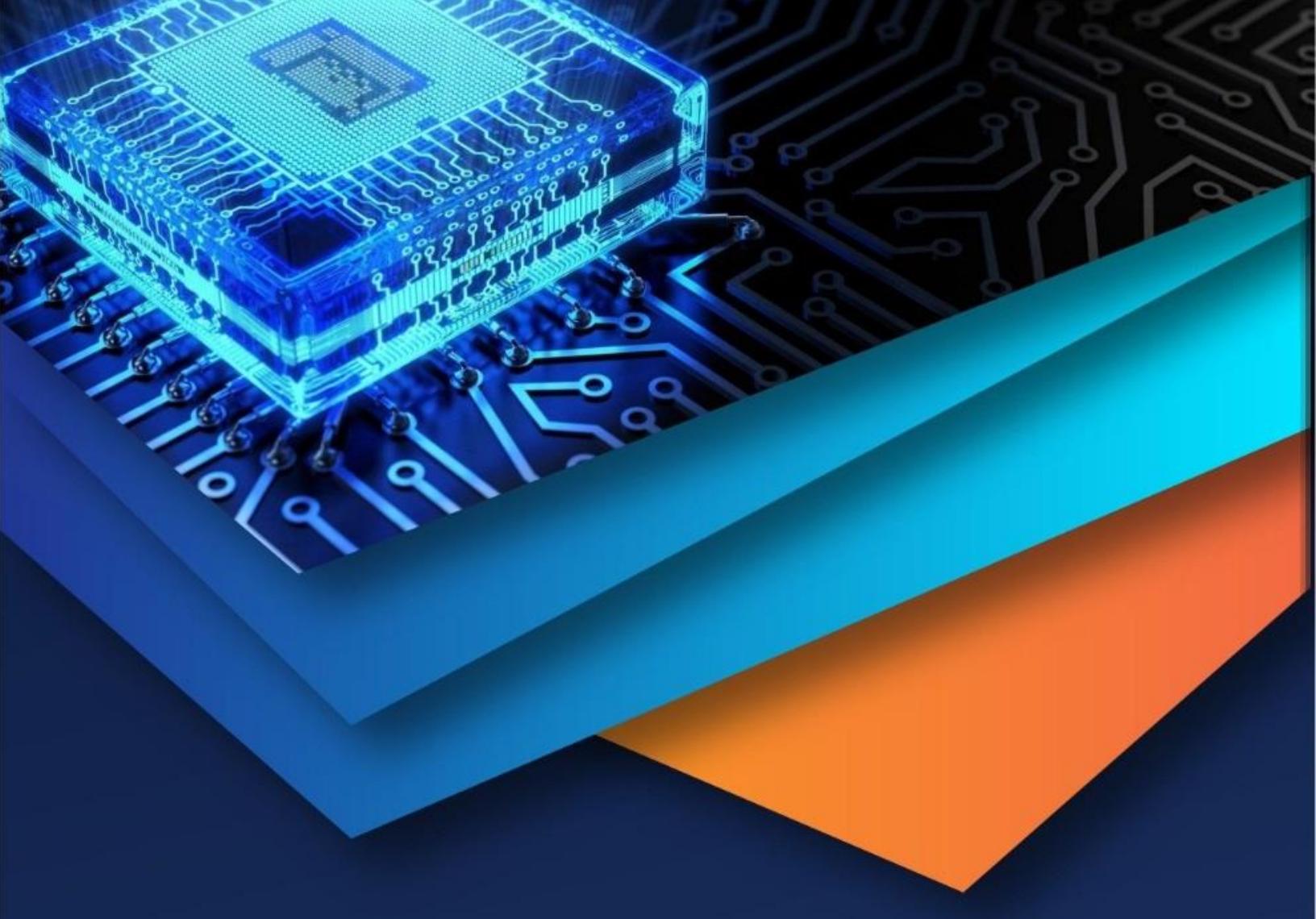## IX. LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

The study is limited to management students in Nagpur, restricting generalizability to other regions and disciplines.

Use of self-reported measures may involve perception biases, and the cross-sectional design does not capture changes over time in skills or e-learning practices.

Future studies could adopt longitudinal designs, include employer and faculty assessments, use mixed methods integrating surveys with interviews or focus groups, and compare different cities or institutional types to deepen understanding of how e-learning shapes employability.

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