

# Learning Ecosystem Quality and its influence on Skill Acquisition and Industry Readiness among Digital Natives in Chennai

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## Abstract

Rapid changes in labour markets have intensified concerns about the preparedness of higher education graduates for professional practice. Against this backdrop, the present study investigates the influence of Learning Ecosystem Quality on Skill Acquisition and Industry Readiness among Digital Natives in Chennai. An exploratory and descriptive design with a quantitative approach was adopted, and data were collected from 200 digital natives (undergraduate and postgraduate students) using a structured questionnaire covering learning infrastructure, teaching quality, industry exposure, academic support, skill acquisition, and industry readiness. Descriptive statistics, multiple regression, and correlation analyses were employed to examine the proposed relationships.

The results indicate that Learning Ecosystem Quality significantly predicts Skill Acquisition, with learning infrastructure, teaching quality, and academic support emerging as major contributors, while industry exposure shows a weaker effect. Skill Acquisition exhibits a strong positive association with Industry Readiness, and Learning Ecosystem Quality also directly influences professional preparedness. The study provides empirical evidence from an Indian metropolitan context and highlights the need for integrated learning ecosystems that combine effective teaching, institutional support, and stronger industry engagement to enhance graduate readiness.

**Keywords:** Learning Ecosystem Quality, Skill Acquisition, Industry Readiness, Learning Infrastructure, Teaching Quality, Digital Natives

## 1. Introduction

The rapid transformation of labour markets has intensified concerns about whether higher education systems are adequately preparing graduates for professional practice. Empirical evidence consistently points to a misalignment between academic outcomes and industry expectations. Chida and Brown (2011) demonstrated a clear gap between institutional graduation standards and employers' assessments of job readiness, suggesting that degree completion alone does not ensure workplace preparedness. Similar concerns have been echoed in policy discussions by the Organisation for Economic Co-operation and Development, which emphasise the need for higher education to realign its strategic priorities with evolving global skill demands.

Subsequent studies further reveal that while graduates often acquire disciplinary knowledge, they face

difficulties translating classroom learning into applied competencies required by employers (Maran & Shekar, 2015; Otermans et al., 2025). From an employer perspective, practical experience, alignment between field of study and job roles, and transferable skills are valued more strongly than qualification level alone (Humburg & van der Velden, 2015; Byrne, 2020). At the same time, students tend to underestimate the importance of work-ready skills, despite their recognised significance for career success among academics and employers (McManus & Rook, 2019).

In response to these challenges, recent scholarship has increasingly framed graduate preparedness through the lens of learning ecosystems, highlighting the combined influence of institutional infrastructure, teaching quality, experiential learning, digital readiness, and academic support. Innovation-driven educational ecosystems have been shown to play a critical role in strengthening employability, particularly in complex economies such as India (Sanjay et al., 2018). Studies on problem-based and integrative learning approaches demonstrate their effectiveness in developing critical thinking, communication, teamwork, and the ability to apply academic knowledge in professional contexts (Heaviside et al., 2018; Khakimova, 2025).

Digital learning environments further contribute to competence development by enhancing engagement, formative assessment, and technological skills (Pinto-Llorente & Izquierdo-Álvarez, 2024; Elshaer et al., 2025). Parallel research also underscores the importance of structured industry–academia collaboration in refining curricula and improving graduate readiness (Ahmed et al., 2022; Akash & Suganya, 2024). Building on this body of work, the present study examines how Learning Ecosystem Quality influences Skill Acquisition and Industry Readiness among Digital Natives in Chennai, addressing the need for integrated, ecosystem-based evidence within the Indian higher education context.

## 2. Statement of Research Problem

Despite sustained expansion in higher education and skill development initiatives, a persistent gap remains between graduate capabilities and industry expectations. Empirical studies reveal that institutional measures of academic readiness often fail to reflect employers' assessments of job preparedness, indicating a structural disconnect between curriculum outcomes and workplace requirements (Chida & Brown, 2011). This concern aligns with policy directions from the Organisation for Economic Co-operation and Development, which emphasise the urgent need for higher education systems to realign learning objectives with evolving global skill demands.

Employers increasingly prioritise applied competencies, relevant work experience, and alignment between academic specialisation and job roles over qualification level alone (Humburg & van der Velden, 2015; Byrne, 2020). However, evidence suggests that many graduates struggle to translate classroom learning into professional practice, particularly in relation to soft skills, adaptability, and real-world problem solving (Maran & Shekar, 2015; Otermans et al., 2025). Compounding this issue, students themselves often underestimate the importance of work-ready skills, even though academics and employers regard these competencies as critical for career success (McManus & Rook, 2019).

Recent research has therefore shifted toward a learning ecosystem perspective, recognising that graduate readiness emerges from the combined influence of infrastructure, teaching quality, experiential learning, digital environments, and institutional support. Innovation-driven ecosystems have been shown to strengthen employability in complex economies such as India, yet their effective implementation remains uneven across institutions (Sanjay et al., 2018).

While problem-based learning, integrative curricula, and digital learning ecosystems demonstrably enhance critical thinking, engagement, and practical skill development (Heaviside et al., 2018; Pinto-Llorente & Izquierdo-Álvarez, 2024; Elshaer et al., 2025), these approaches are not consistently embedded within mainstream higher education. Moreover, although structured industry–academia collaboration improves curriculum relevance and graduate preparedness, many institutions continue to face challenges in sustaining meaningful partnerships (Ahmed et al., 2022; Akash & Suganya, 2024). In the Indian metropolitan context, particularly among Digital Natives, empirical evidence remains limited on how the overall quality of learning ecosystems translates into concrete skill acquisition and industry readiness. This lack of integrated, ecosystem-based analysis constitutes a critical research gap, necessitating systematic investigation into how Learning Ecosystem Quality influences Skill Acquisition and Industry Readiness among higher education students in Chennai.

### 3. Review of Literature

#### 3.1. Literature Reviews

Existing research consistently highlights a misalignment between higher education outcomes and industry expectations. Early evidence by Chida and Brown (2011) revealed that graduation standards often fail to reflect employers' evaluations of job readiness, indicating that academic completion alone does not guarantee workplace preparedness. These concerns resonate with policy directions from the Organisation for Economic Co-operation and Development, which emphasise the need for higher education systems to realign learning priorities with evolving global skill demands.

Employer-focused studies further demonstrate that practical experience, alignment between field of study and job roles, and transferable skills exert stronger influence on perceived employability than degree level alone (Humburg & van der Velden, 2015; Byrne, 2020). At the same time, students frequently undervalue work-ready skills despite their recognised importance among academics and employers (McManus & Rook, 2019). In parallel, Maran and Shekar (2015) and Otermans et al. (2025) observed that while students develop higher-order thinking in academic settings, they often struggle to transfer these competencies to professional contexts due to limited workplace exposure.

More recent scholarship has shifted toward a learning ecosystem perspective, recognising that graduate readiness is shaped by the combined influence of infrastructure, teaching quality, digital environments, experiential learning, and institutional support. Sanjay et al. (2018) highlighted the importance of innovation-driven ecosystems in strengthening employability, particularly in complex economies such as India. Digital learning ecosystem studies show that technology-enabled environments enhance formative assessment, learner engagement, and competence development, including communication, creativity, and problem solving (Pinto-Llorente & Izquierdo-Álvarez, 2024; Alenezi, 2023). Elshaer et al. (2025) further demonstrated that psychological motivation and technological skills positively influence e-learning readiness and employability, with student engagement playing a significant moderating role. Complementing this, Ogbuanya and Adebayo (2025) identified self-directed learning attributes such as motivation, planning, and self-monitoring as key contributors to engagement in practical skill acquisition. Experiential and integrative learning approaches have also been shown to bridge academic learning with workplace application. Heaviside et al. (2018) reported that problem-based learning strengthens teamwork, communication, and critical thinking while enabling students to apply academic knowledge in employment contexts. Similarly, integrative vocational curricula and intensive training initiatives were found to improve theoretical understanding, practical performance, engagement, and entrepreneurial self-

efficacy (Khakimova, 2025; Awotunde & Aregbeshola, 2025).

Alongside pedagogical reforms, industry–academia collaboration has emerged as a critical mechanism for enhancing curriculum relevance and graduate preparedness. Structured partnership models facilitate iterative curriculum refinement and improve alignment with labour market needs (Ahmed et al., 2022; Akash & Suganya, 2024), while broader evidence confirms that internships, co-production, and employer engagement significantly strengthen employability outcomes (Bikard et al., 2018; Franco et al., 2019; Sjöö & Hellström, 2019). Collectively, this body of literature underscores that skill acquisition and industry readiness are products of interconnected learning ecosystems rather than isolated instructional practices.

### 3.2. Research Gap

Although prior studies have examined employability, experiential learning, digital ecosystems, and industry–academia collaboration independently, limited research integrates these dimensions within a unified framework linking Learning Ecosystem Quality, Skill Acquisition, and Industry Readiness. Moreover, most empirical evidence originates from Western or sector-specific contexts, with comparatively fewer ecosystem-level investigations focused on Indian metropolitan settings. In particular, there remains a lack of mediation-based studies explaining how learning ecosystem factors translate into workforce preparedness among Digital Natives. The absence of integrated empirical models addressing these relationships in Chennai highlights a critical gap, underscoring the need for systematic examination of how Learning Ecosystem Quality influences Skill Acquisition and subsequently shapes Industry Readiness in contemporary higher education environments.

## 4. Conceptual Framework and Hypotheses Development

### 4.1. Learning Ecosystem Quality

Learning Ecosystem Quality represents the combined influence of institutional infrastructure, teaching practices, digital environments, experiential learning, and academic support in shaping meaningful learning outcomes. Prior research consistently indicates that conventional academic models do not fully align with employer expectations, resulting in gaps between graduation standards and workplace readiness (Chida & Brown, 2011). Similar concerns have been raised in policy discussions by the Organisation for Economic Co-operation and Development, which emphasise the need for education systems to adapt to evolving skill demands.

In response, recent studies highlight the role of innovation-driven and digitally enabled learning ecosystems in strengthening employability, particularly within complex economies such as India (Sanjay et al., 2018; Alenezi, 2023). Digital learning environments further contribute to learner engagement, formative assessment, and the development of communication, creativity, and problem-solving competencies (Pinto-Llorente & Izquierdo-Álvarez, 2024).

Beyond technological provision, Learning Ecosystem Quality is reinforced through effective teaching practices and experiential learning opportunities. Learner-centred pedagogies, including problem-based and integrative approaches, foster critical thinking, teamwork, and the application of academic knowledge in real-world contexts (Heaviside et al., 2018; Khakimova, 2025). Teaching quality, reflected in faculty competence and mentoring support, plays a pivotal role in translating curricular content into competence development. Complementing classroom learning, industry exposure through internships, projects, and professional interactions enhances perceived employability by strengthening degree–job alignment and practical experience (Humburg & van der Velden, 2015; Byrne, 2020). Conversely, limited workplace engagement constrains graduates' ability to transfer academic learning into professional practice (Maran

& Shekar, 2015; Otermans et al., 2025).

Equally important are institutional support mechanisms that guide students throughout their learning journey and transition to employment. Sustained industry–academia collaboration facilitates curriculum refinement and improves alignment with labour market needs, thereby strengthening graduate preparedness (Ahmed et al., 2022; Akash & Suganya, 2024). Academic support services, including career guidance and continuous feedback, help learners identify skill gaps and build professional confidence, although students often underestimate the importance of work-ready competencies despite their recognised value among employers and academics (McManus & Rook, 2019).

Moreover, psychological motivation, technological skills, and student engagement, when reinforced through institutional support, significantly enhance employability outcomes (Elshaer et al., 2025). Collectively, the literature positions Learning Ecosystem Quality as a multidimensional construct that establishes the foundational conditions for effective skill development and industry readiness.

**H1: Learning Ecosystem Quality has a significant influence on Skill Acquisition among Digital Natives.**

*H1a: Learning Infrastructure has a significant influence on Skill Acquisition.*

*H1b: Teaching Quality has a significant influence on Skill Acquisition.*

*H1c: Industry Exposure has a significant influence on Skill Acquisition.*

*H1d: Academic Support has a significant influence on Skill Acquisition.*

#### **4.2. Skill Acquisition**

Skill Acquisition refers to learners’ development of technical, cognitive, and transferable competencies required for professional practice. Evidence suggests that applied and integrative learning approaches significantly enhance students’ practical abilities, engagement, and confidence in using knowledge beyond the classroom (Khakimova, 2025; Awotunde & Aregbeshola, 2025). Problem-based learning further supports the development of communication, teamwork, and critical thinking, enabling students to translate academic learning into employment contexts (Heaviside et al., 2018). Complementing these pedagogical approaches, self-directed learning attributes such as motivation, planning, and self-monitoring play a crucial role in sustaining engagement in practical skill development (Ogbuanya & Adebayo, 2025).

Digital readiness and psychological motivation also contribute substantially to Skill Acquisition. Elshaer et al. (2025) demonstrated that technological skills and motivation enhance e-learning readiness, which in turn strengthens employability-related competencies, particularly when supported by active student engagement. These findings underscore that Skill Acquisition is not an isolated outcome of instruction but emerges from interactive learning environments that integrate experiential learning, learner autonomy, and digital capability.

**H2: Skill Acquisition has a significant relationship with Industry Readiness among Digital Natives.**

#### **4.3. Industry Readiness**

Industry Readiness reflects graduates’ preparedness to meet workplace demands, encompassing applied competence, professional confidence, and adaptability. Employer-focused studies indicate that relevant work experience, alignment between field of study and job roles, and transferable skills exert greater influence on perceived employability than degree level alone (Humburg & van der Velden, 2015; Byrne, 2020). However, several studies report that graduates often struggle to transfer classroom-based learning into professional practice due to limited exposure to real work environments (Maran & Shekar, 2015;

Otermans et al., 2025). This disconnect highlights the need for higher education institutions to embed employability more explicitly within academic programs.

Institutional initiatives play a critical role in strengthening Industry Readiness. Structured industry–academia collaboration improves curriculum relevance and enhances graduate preparedness by aligning educational content with evolving labour market needs (Ahmed et al., 2022; Akash & Suganya, 2024). At the same time, McManus and Rook (2019) observed that students often undervalue work-ready skills, reinforcing the importance of institutional encouragement and career facilitation mechanisms. Collectively, the literature suggests that Industry Readiness is shaped by both individual skill development and the broader learning ecosystem, necessitating integrated approaches that connect academic learning with professional practice.

**H3: Learning Ecosystem Quality has a significant relationship with Industry Readiness among Digital Natives.**

## 6. Methodology Employed

The present study adopts an exploratory and descriptive research design with a quantitative approach to examine the influence of Learning Ecosystem Quality on Skill Acquisition and Industry Readiness among Digital Natives (Millennials and Zoomers) in Chennai. Quantitative survey designs are widely employed in social science research to measure perceptions and relationships among variables using structured instruments (Creswell, 2014; Kothari, 2004). Data were collected from 200 undergraduate and postgraduate students using convenience sampling through a structured questionnaire measuring learning infrastructure, teaching quality, industry exposure, academic support, skill acquisition, and industry readiness. Convenience sampling is considered appropriate in exploratory educational studies where the population is widely dispersed and accessibility constraints exist (Kothari, 2004). Structured questionnaires enable systematic data collection and comparability across respondents (Creswell, 2014). Both descriptive and inferential statistical techniques were applied for data analysis. Mean analysis was utilised to summarise students' perceptions of Learning Ecosystem Quality, while multiple regression analysis examined the influence of Learning Ecosystem Quality dimensions on Skill Acquisition. Pearson correlation analysis was employed to explore the relationships between Skill Acquisition and Industry Readiness, and between Learning Ecosystem Quality and Industry Readiness. The application of regression and correlation techniques to assess relationships among variables is well established in quantitative research (Field, 2013; Hair et al., 2019). A sample size of 200 respondents yields an estimated margin of error of approximately  $\pm 7$  per cent at the 95 per cent confidence level (assuming maximum variability), which is acceptable for behavioural and social science research (Kothari, 2004). Accordingly, the adopted methodological framework provides sufficient analytical precision to generate empirical insights into how ecosystem-level learning conditions influence students' skill development and professional preparedness.

## 7. Data Analysis and Interpretation

### 7.1. Analysis of Digital Natives (College Students)' Perception on Learning Ecosystem Quality – Mean Analysis

To assess Digital Natives' perceptions of Learning Ecosystem Quality and its contribution to Skill Acquisition and Industry Readiness, a structured questionnaire was designed comprising 12 items distributed across four dimensions: Learning Infrastructure, Teaching Quality, Industry Exposure, and

Academic Support (Table 1). Each dimension was represented by three statements, rated on a five-point Likert scale ranging from Strongly Agree to Strongly Disagree. The instrument was administered to 200 undergraduate and postgraduate students enrolled in self-financing colleges in Chennai. The responses obtained were analysed using mean scores to determine students’ perceived levels of Learning Ecosystem Quality and to examine how these ecosystem components support skill development and preparedness for professional practice.

**Table 1**  
**Analysis of Digital Natives (College Students)’ Perception on Learning Ecosystem Quality – Mean Analysis**

<b>LEARNING ECOSYSTEM QUALITY</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Learning Infrastructure	200	12.06	2.369
Teaching Quality	200	11.34	2.887
Industry Exposure	200	09.17	3.995
Academic Support	200	10.02	3.112
<b>PERCEPTION ON LEARNING ECOSYSTEM QUALITY</b>	<b>200</b>	<b>42.59</b>	<b>5.867</b>

**Source: Primary Data**

Table 1 presents Digital Natives’ perceptions of Learning Ecosystem Quality across four dimensions. Among these, Learning Infrastructure achieved the highest mean score (12.06), indicating that students generally view institutional facilities and digital resources as supportive of their academic activities. This is followed by Teaching Quality (Mean = 11.34), suggesting a fairly positive evaluation of faculty guidance and instructional practices. Academic Support recorded a mean of 10.02, reflecting moderate satisfaction with career guidance, feedback systems, and institutional assistance. In contrast, Industry Exposure obtained the lowest mean score (9.17), pointing to comparatively limited opportunities for workplace interaction, internships, and practical industry engagement, and highlighting a gap in linking classroom learning with professional environments.

The overall mean score for Learning Ecosystem Quality is 42.59 with a standard deviation of 5.867. Given a maximum possible score of 60, this corresponds to approximately 70.98 per cent, indicating a moderate level of perceived learning ecosystem quality among the respondents. This level suggests that while students benefit from relatively strong infrastructure and teaching inputs, constraints in industry exposure and only average academic support may restrict the effective conversion of learning experiences into Skill Acquisition and Industry Readiness. The results emphasise the importance of strengthening industry linkages and student support systems, alongside existing institutional resources, to enhance comprehensive skill development and improve professional preparedness among Digital Natives in Chennai.

**7.2 Analysis of Impact of Learning Ecosystem Quality on Skill Acquisition of Digital Natives – Multiple Regression Analysis**

**H1: Learning Ecosystem Quality has a significant influence on Skill Acquisition among Digital Natives.**

A multiple regression analysis was employed to assess the extent to which the four dimensions of Learning Ecosystem Quality, Learning Infrastructure, Teaching Quality, Industry Exposure, and Academic Support,

predict Skill Acquisition among Digital Natives. Skill Acquisition was treated as the dependent variable, while the four ecosystem dimensions were included as independent predictors. The analysis aimed to examine both the combined effect of Learning Ecosystem Quality and the individual contribution of each dimension to students’ skill development.

The regression results in Table 2 indicate that the overall model is statistically significant, confirming the adequacy of the regression equation in explaining variations in Skill Acquisition. The Adjusted R<sup>2</sup> value of 0.721 shows that approximately **72.1 per cent** of the variance in Skill Acquisition is explained by the combined influence of Learning Infrastructure, Teaching Quality, Industry Exposure, and Academic Support. This high explanatory power demonstrates that Learning Ecosystem Quality plays a substantial role in shaping skill development among Digital Natives in Chennai. Accordingly, the stated hypothesis (H1) is supported, establishing that Learning Ecosystem Quality has a significant influence on Skill Acquisition.

**Table 2**  
**Impact of Learning Ecosystem Quality on Skill Acquisition of Digital Natives - Multiple Regression Analysis**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.369	.602		1.652	.237
	Learning Infrastructure	.487	.103	.368	4.258	.000**
	Teaching Quality	.201	.111	.221	3.545	.000**
	Industry Exposure	.064	.128	.052	0.156	.156
	Academic Support	.213	.119	.195	2.452	.029*

**Dependent Variable: Skill Acquisition among Digital Natives**  
**(\*\*1% and \*5% Level of Significance)**

An examination of the individual predictors reveals that Learning Infrastructure emerges as the strongest contributor to Skill Acquisition ( $\beta = 0.368$ ,  $p < 0.01$ ), indicating that access to institutional facilities and digital resources substantially enhances students’ ability to acquire relevant skills. Teaching Quality also exhibits a significant positive effect ( $\beta = 0.221$ ,  $p < 0.01$ ), highlighting the importance of faculty guidance and instructional effectiveness in promoting competence development. Academic Support shows a meaningful influence at the 5 per cent significance level ( $\beta = 0.195$ ,  $p < 0.05$ ), suggesting that career guidance, feedback, and institutional assistance further strengthen students’ skill acquisition. In contrast, Industry Exposure does not demonstrate a statistically significant effect ( $\beta = 0.052$ ,  $p > 0.05$ ), implying that existing industry engagement opportunities may be insufficient or inconsistently accessed by students to produce a direct impact on skill development.

Overall, the findings confirm that Learning Ecosystem Quality aspects, particularly Learning Infrastructure, Teaching Quality, and Academic Support, significantly contributes to Skill Acquisition among Digital Natives, while Industry Exposure remains comparatively weak. These results underscore the need for higher education institutions in Chennai to strengthen practical industry engagement alongside existing academic and infrastructural support in order to foster more comprehensive and job-relevant skill development.

**7.3. Assessment of the Relationship between Skill Acquisition and Industry Readiness among digital natives – Correlation Analysis**

**H2: Skill Acquisition has a significant relationship with Industry Readiness among Digital Natives.**

A Pearson product–moment correlation analysis was utilised to examine the relationship between Skill Acquisition and Industry Readiness among Digital Natives. The analysis was conducted on data collected from 200 college students to determine whether higher levels of acquired skills are associated with greater preparedness for professional practice.

**Table 3**

**Assessment of the Relationship between Skill Acquisition and Industry Readiness among digital natives – Correlation Analysis**

VARIABLE	N	'r' VALUE	P VALUE	RELATIONSHIP	REMARKS	
					SIGNIFICANT	RESULT
Skill Acquisition and Industry Readiness	200	0.736**	0.000	Positive	Significant	REJECTED

(Source: Primary Data) \*\*. Correlation is significant at the 0.01 level (2-tailed).

The results presented in Table 3 indicate a strong and positive correlation between Skill Acquisition and Industry Readiness ( $r = 0.736$ ), which is statistically significant at the 1 per cent level ( $p = 0.000$ ). As the p-value is less than 0.01, the null hypothesis is rejected, and H2 is accepted, confirming the existence of a significant relationship between Skill Acquisition and Industry Readiness among Digital Natives. The positive direction of the relationship suggests that students who report stronger skill development also tend to demonstrate higher levels of readiness for industry requirements.

These findings imply that skill development plays a central role in shaping students’ professional preparedness. As learners strengthen their technical, cognitive, and transferable competencies, their confidence and ability to meet workplace expectations also improve. The strong association observed in this study highlights the importance of creating learning environments that actively support continuous skill development, as such efforts are likely to translate directly into enhanced industry readiness among college students in Chennai.

**7.4. Assessment of the Relationship between Learning Ecosystem Quality and Industry Readiness among digital natives – Correlation Analysis**

**H3: Learning Ecosystem Quality has a significant influence on Industry Readiness among Digital Natives.**

A Pearson product–moment correlation analysis was employed to examine the relationship between Learning Ecosystem Quality and Industry Readiness among Digital Natives. Data from 200 college students were analysed to determine whether perceptions of learning infrastructure, teaching quality, industry exposure, and academic support are associated with students’ preparedness for professional practice.

**Table 4**

**Analysis of the Relationship between Learning Ecosystem Quality and Industry Readiness among digital natives – Correlation Analysis**

VARIABLE	N	'r' VALUE	P VALUE	RELATIONSHIP	REMARKS	
					SIGNIFICANT	RESULT
Learning Infrastructure and Industry Readiness	200	0.690**	0.000	Positive	Significant	REJECTED
Teaching Quality and Industry Readiness	200	0.719**	0.000	Positive	Significant	REJECTED
Industry Exposure and Industry Readiness	200	0.533**	0.000	Positive	Significant	REJECTED
Academic Support and Industry Readiness	200	0.625**	0.000	Positive	Significant	REJECTED
<b>Learning Ecosystem Quality Aspects and Industry Readiness</b>	<b>200</b>	<b>0.703**</b>	<b>0.000</b>	<b>Positive</b>	<b>Significant</b>	<b>REJECTED</b>

(Source: Primary Data) \*\*. Correlation is significant at the 0.01 level (2-tailed).

The results presented in Table 4 reveal positive and statistically significant relationships between all dimensions of Learning Ecosystem Quality and Industry Readiness at the 1 per cent level ( $p = 0.000$ ). Among the individual components, Teaching Quality shows the strongest association with Industry Readiness ( $r = 0.719$ ), followed by Learning Infrastructure ( $r = 0.690$ ) and Academic Support ( $r = 0.625$ ), indicating that effective instruction, adequate facilities, and institutional guidance play a substantial role in enhancing students' professional preparedness.

Industry Exposure also demonstrates a significant positive relationship ( $r = 0.533$ ), although its comparatively lower coefficient suggests that existing workplace engagement opportunities may be less influential or unevenly experienced by students. Importantly, the composite measure of Learning Ecosystem Quality exhibits a strong positive correlation with Industry Readiness ( $r = 0.703$ ), confirming that the overall learning environment is closely linked to students' readiness for industry demands.

Since all p-values are less than 0.01, the null hypothesis is rejected and H3 is accepted and supported, establishing that Learning Ecosystem Quality has a significant influence on Industry Readiness among Digital Natives. These findings indicate that students who perceive stronger institutional infrastructure, teaching support, industry interaction, and academic guidance also report higher levels of professional readiness. The results highlight the importance of strengthening holistic learning ecosystems, particularly teaching quality and institutional support, while simultaneously enhancing industry engagement, in order to better prepare Digital Natives in Chennai for workplace expectations.

## 8. Discussion on Findings

The results demonstrate that Learning Ecosystem Quality plays a central role in enhancing Skill Acquisition and Industry Readiness among Digital Natives in Chennai. The strong influence of learning infrastructure and teaching quality supports earlier findings that innovation-driven environments and learner-centred pedagogies strengthen applied competence and employability outcomes (Sanjay et al., 2018; Heaviside et al., 2018; Alenezi, 2023). The positive contribution of academic support aligns with evidence highlighting the importance of institutional guidance in facilitating skill development (Elshaer et al., 2025), while the comparatively weaker effect of industry exposure reflects concerns about limited workplace integration noted by Maran and Shekar (2015) and Otermans et al. (2025).

The significant association between Skill Acquisition and Industry Readiness corroborates employer-based studies emphasising the value of practical and transferable skills in graduate preparedness (Humburg & van der Velden, 2015; Byrne, 2020). Overall, the findings reinforce the need for integrated learning ecosystems that combine effective teaching, institutional support, and stronger industry engagement to prepare Digital Natives for contemporary workforce demands (Ahmed et al., 2022; Akash & Suganya, 2024).

## 9. Suggestions and Recommendations

Based on the findings, higher education institutions in Chennai should prioritise strengthening their learning ecosystems by enhancing industry engagement alongside existing academic and infrastructural support. Structured partnerships with employers, expanded internship opportunities, and the integration of live industry projects into curricula can help bridge the gap between classroom learning and workplace expectations. Faculty development programs should emphasise learner-centred and practice-oriented teaching approaches to further support skill development.

Institutions are also encouraged to reinforce academic support systems through continuous feedback, career guidance, and employability-focused training to help students recognise and address skill gaps early. Investment in digital and physical learning infrastructure must be accompanied by intentional strategies that promote active learning and collaboration. Collectively, these measures can create more cohesive learning environments that foster continuous skill acquisition and improve industry readiness among Digital Natives.

## 10. Conclusion

The study demonstrates that Learning Ecosystem Quality plays a decisive role in shaping Skill Acquisition and Industry Readiness among Digital Natives in Chennai, with learning infrastructure, teaching quality, and academic support emerging as key contributors to students' professional preparedness. These findings carry important implications for higher education institutions, suggesting the need to move beyond isolated instructional improvements toward integrated ecosystem development that combines effective pedagogy, institutional support, and meaningful industry engagement. The study contributes to the literature by empirically linking learning ecosystem dimensions with skill development and industry readiness within an Indian metropolitan context, offering a structured framework that can inform curriculum design and institutional policy. However, the use of convenience sampling and self-reported measures limits the generalisability of the results, and the cross-sectional design restricts causal interpretation. Future research may extend this work through longitudinal designs, probability-based

sampling, and the inclusion of employer perspectives to capture dynamic skill development processes and workplace expectations more comprehensively.

In conclusion, the evidence highlights that students' readiness for professional life is strongly influenced by the quality of their learning environments. While institutions appear to provide adequate infrastructure and teaching support, comparatively weaker industry exposure points to the need for stronger academia–industry integration. By fostering holistic learning ecosystems that promote continuous skill acquisition, reflective learning, and practical engagement, higher education institutions can better equip Digital Natives to meet evolving workforce demands. Overall, the study underscores that sustainable graduate employability depends not on individual interventions alone, but on coordinated ecosystem-level strategies that align education with industry needs.

## References

1. Ahmed, F., Fattani, M. T., Ali, S. R., & Enam, R. N. (2022). Strengthening the bridge between academia and industry through the Academia–Industry Collaboration Plan design model. *Frontiers in Psychology*, 13, 875940. <https://doi.org/10.3389/fpsyg.2022.875940>
2. Akash, & Suganya. (2024). Bridging the gap between industry needs and student skills for quality education through SDGs: An industry–academia collaboration in curriculum development. *SDGs Review*, 4(4). <https://doi.org/10.47172/2965-730X.SDGsReview.v4.n04.pe03616>
3. Alenezi, M. (2023). Digital learning and digital institution in higher education. *Education Sciences*, 13(1), 88. <https://doi.org/10.3390/educsci13010088>
4. Awotunde, M. O., & Aregbeshola, R. A. (2025). Intensive training, skill acquisition, and development in South African higher institution. *Journal of Innovation and Entrepreneurship*, 14, 52. <https://doi.org/10.1186/s13731-025-00505-9>
5. Bikard, M., Vakili, K., & Teodoridis, F. (2018). When collaboration bridges institutions: The impact of university–industry collaboration on academic productivity. *Organization Science*, 30(2), 426–445. <https://doi.org/10.1287/orsc.2018.1235>
6. Byrne, C. (2020). What determines perceived graduate employability? Exploring the effects of personal characteristics, academic achievements and graduate skills in a survey experiment. *Studies in Higher Education*. <https://doi.org/10.1080/03075079.2020.1735329>
7. Chida, M., & Brown, G. (2011). Evaluating the gap between industry assessment of job readiness and graduation standards in higher education institutions: The case of fashion studies. *International Journal of Fashion Design, Technology and Education*, 4(2), 71–82. <https://doi.org/10.1080/17543266.2010.525533>
8. Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage Publications.
9. Elshaer, I. A., Azazz, A. M. S., Mohammad, A. A. A., & Fayyad, S. (2025). Decoding success: The role of e-learning readiness in linking technological skills and employability in hospitality management graduates. *Information*, 16(1), 47. <https://doi.org/10.3390/info16010047>
10. Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). Sage Publications.
11. Franco, M., Silva, R., & Rodrigues, M. (2019). Partnerships between higher education institutions and firms: The role of students' curricular internships. *Industry and Higher Education*, 33(3), 172–185. <https://doi.org/10.1177/0950422218819638>

12. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
13. Heaviside, H. J., Manley, A. J., & Hudson, J. (2018). Bridging the gap between education and employment: A case study of problem-based learning implementation in postgraduate sport and exercise psychology. *Higher Education Pedagogies*, 3(1), 463–477. <https://doi.org/10.1080/23752696.2018.1462095>
14. Humburg, M., & van der Velden, R. (2015). Skills and the graduate recruitment process: Evidence from two discrete choice experiments. *Economics of Education Review*, 49, 24–41. <https://doi.org/10.1016/j.econedurev.2015.07.001>
15. Khakimova, S. K. (2025). Enhancing professional readiness in vocational education through an integrative approach aligned with the Sustainable Development Goals (SDGs). *ASEAN Journal for Science Education*, 4(2), 143–154.
16. Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nd ed.). New Age International.
17. Maran, K., & Shekar, C. (2015). A study on students' perception of employability skills with respect to engineering institution. *International Journal of Research in Engineering and Social Sciences*, 5(3), 21–34.
18. McManus, L., & Rook, L. (2019). Mixed views in the academy: Academic and student perspectives about the utility of developing work-ready skills through WIL. *Studies in Higher Education*, 46(2), 270–284. <https://doi.org/10.1080/03075079.2019.1630809>
19. Ogbuanya, C. T., & Adebayo, T. F. (2025). Effect of self-directed learning on students' engagement in practical skills acquisition in electrical installation and maintenance work in Nigeria. *Industry and Higher Education*. <https://doi.org/10.1177/09504222251375629>
20. Otermans, P., Small, S., Pereira, M., Sridharan, P., & Aditya, D. (2025). Students' and graduates' perspectives on skill development in higher education. *Journal of Education and Work*, 38(1–4), 84–112. <https://doi.org/10.1080/13639080.2025.2576858>
21. Pinto-Llorente, A., & Izquierdo-Álvarez, V. (2024). Digital learning ecosystem to enhance formative assessment in second language acquisition in higher education. *Sustainability*, 16, 4687. <https://doi.org/10.3390/su16114687>
22. Sanjay, D., Shrotriya, S., & Sushil. (2018). Innovation driven ecosystem for quality skill development in India. *Benchmarking: An International Journal*, 25. <https://doi.org/10.1108/BIJ-11-2017-0320>
23. Sjö, K., & Hellström, T. (2019). University–industry collaboration: A literature review and synthesis. *Industry and Higher Education*, 33(4), 275–285. <https://doi.org/10.1177/0950422219829697>