Beyond Traditional Partnerships: A Boundary-Crossing Framework For Sustainable Academia–Industry Collaboration in Hospitality and Tourism Education in the Philippines

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ABSTRACT

This study examined academic–industry partnerships in five selected higher education institutions (HEIs) in the Philippines offering hospitality and tourism programs. Anchored in the Boundary Crossing Model, it employed a descriptive quantitative research design involving 635 school managers, OJT and faculty coordinators, and industry partners selected through purposive sampling. Data were gathered through a researcher-developed questionnaire and analyzed using weighted means and analysis of variance (ANOVA). Findings revealed that shared vision, financial management, and mutual trust were the strongest partnership dimensions, while leadership and managerial capacity and autonomy policy required further strengthening. Stakeholder assessments showed no significant differences across partnership dimensions, whereas institutional assessments of facilitating and constraining conditions differed significantly. Collaborative planning, institutional support, and clearly defined responsibilities facilitated partnerships, while time-limited funding and differences in organizational values and working practices presented challenges. The proposed sustainable strategic plan received favorable evaluations in terms of suitability, acceptability, and feasibility. Based on these findings, the study developed the Boundary-Crossing Framework for Sustainable Academia–Industry Collaboration, integrating shared purpose and trust, governance and role clarity, sustainable resourcing, boundary-spanning learning, and monitoring and evaluation. The framework provides a context-responsive approach to strengthening institutional coordination and sustaining mutually beneficial partnerships in hospitality and tourism education.

Keywords: academia–industry collaboration; boundary crossing; hospitality and tourism education; partnership sustainability; work-integrated learning

INTRODUCTION

Higher education institutions (HEIs) are expected to prepare graduates who can apply academic knowledge and demonstrate the competencies required in professional settings. This expectation is particularly important in hospitality and tourism, where service quality, operational competence, communication, adaptability, and workplace readiness are developed through the integration of formal instruction and authentic industry experience. The alignment of academic preparation with workplace expectations is therefore essential to strengthening graduate preparedness and employability. Recent research on hospitality and tourism education highlights the value of work-integrated learning (WIL) in connecting curriculum requirements with industry expectations and practical training (Kanta et al., 2024; Yoo, 2024).

Academic–industry collaboration provides an avenue for achieving this alignment through internships and on-the-job training (OJT), work-integrated learning, collaborative curriculum development, industry participation in instruction, and shared professional learning. However, sustainable partnerships require more than formal agreements. They depend on mutual trust, shared objectives, effective communication, clear roles and responsibilities, institutional commitment, leadership, and adequate financial support. Recent empirical research identifies trust, financial support, communication, and strategic alignment as important determinants of effective university–industry collaboration (Al Harrasi & Al Subhi, 2024). In hospitality and tourism

education, successful collaboration also requires flexibility, commitment, accessibility, and consistent communication between academic and industry partners (Yoo, 2024). These conditions highlight the importance of developing partnerships that are mutually beneficial and responsive to the priorities of both sectors.

The Boundary Crossing Model offers a relevant perspective for understanding how HEIs and industry partners work across institutional boundaries, reconcile differences in organizational priorities, and establish shared practices. In this context, collaboration involves connecting academic objectives with industry expectations while recognizing differences in professional cultures, operating procedures, decision-making structures, and available resources. Recent work on boundary-spanning university–industry collaboration emphasizes the value of coordinated strategies and stakeholder engagement in supporting collaborative education (Zhuang, 2023). Similarly, research on trust-building in university–industry collaboration underscores the importance of institutional leadership in strengthening industry partners' willingness to collaborate, particularly in curriculum development and the alignment of graduate competencies with industry needs (2025 study). These perspectives provide a basis for examining partnership conditions not merely as separate operational factors but as interconnected elements of sustainable collaboration.

In response to this context, the present study assessed academic–industry partnerships in five selected HEIs offering hospitality and tourism education. It examined partnership practices in terms of mutual trust, shared vision, autonomy policy, financial management, institutional interest, and leadership and managerial capacity. It also determined differences in stakeholder assessments, identified facilitating and constraining conditions, compared institutional assessments of these conditions, and evaluated the suitability, acceptability, and feasibility of a proposed sustainable strategic plan. By integrating partnership strengths, institutional differences, resource-related concerns, and stakeholder evaluations, the study seeks to develop a context-responsive framework for strengthening academic–industry collaboration. Its contribution lies in bringing these interconnected dimensions together to inform strategic planning and the continued development of sustainable partnerships in hospitality and tourism education.

METHODOLOGY

The study employed a descriptive quantitative research design and was conducted in five selected higher education institutions (HEIs) in the Philippines offering hospitality and tourism programs: Eulogio "Amang" Rodriguez Institute of Science and Technology (EARIST), Polytechnic University of the Philippines (PUP), Taguig City University (TCU), University of Makati (UMak), and University of Rizal System (URS). The respondents consisted of 635 school managers, On-the-Job Training (OJT) and faculty coordinators, and industry partners selected through purposive sampling based on their professional roles and direct involvement in academic–industry partnership initiatives. Their participation provided institutional and industry perspectives on existing collaborative practices and opportunities for strengthening sustainable partnerships.

Data were gathered using a researcher-developed questionnaire aligned with the study objectives and conceptual framework. The instrument covered six dimensions of academic–industry partnership, the facilitating and constraining conditions influencing collaboration, and the evaluation of the proposed strategic plan in terms of suitability, acceptability, and feasibility. Its development focused on the relevance, clarity, and alignment of the indicators with the research variables. The respondent profile was classified according to participating institution and stakeholder group, while the questionnaire responses were analyzed using the response scale and weighted-mean interpretation adopted in the study.

Weighted means were used to describe respondents' assessments across the research dimensions, while analysis of variance (ANOVA) was employed to determine differences in assessments among stakeholder groups and participating institutions at the 0.05 level of significance. Where supported by the statistical results, post-hoc comparisons were used to further examine significant institutional differences. The findings served as the empirical basis for developing the proposed Boundary-Crossing Framework for Sustainable Academia–Industry Collaboration, comprising five key areas: shared purpose and trust, governance and role clarity, sustainable resourcing, boundary-spanning learning, and monitoring, evaluation, and partnership renewal.

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RESULTS AND DISCUSSION

Table 1 Assessment of Academic–Industry Partnership

Partnership dimension	Composite WM	Interpretation	Rank
Shared vision	4.34	Highly Extent	1
Financial management	4.31	Highly Extent	2
Mutual trust	4.23	Highly Extent	3
Institutional interest	4.10	Extent	4
Autonomy policy	3.98	Extent	5
Leadership and managerial capacity	3.86	Extent	6
Grand mean	**4.14**	**Extent**	—

The assessment of academic–industry partnerships obtained an overall weighted mean of 4.14, interpreted as Extent, indicating that collaborative practices are generally evident across the participating higher education institutions. Among the six dimensions, shared vision received the highest rating (WM = 4.34), followed by financial management (WM = 4.31) and mutual trust (WM = 4.23). Institutional interest (WM = 4.10), autonomy policy (WM = 3.98), and leadership and managerial capacity (WM = 3.86) obtained comparatively lower ratings.

The findings highlight the importance of shared institutional objectives, effective resource management, and mutual trust in sustaining academic–industry partnerships. The high assessment of shared vision suggests that participating institutions and their industry partners recognize the value of establishing common goals and aligning their collaborative activities. This is supported by Zhuang and Shi (2024), whose systematic review identified stakeholder engagement and shared institutional and industry interests as important determinants of successful education-focused university–industry collaboration. Similarly, Littleton et al. (2023) emphasized the significance of trust, business alignment, mutual benefits, and shared values in developing sustainable university–industry relationships.

The relatively lower assessments of leadership and managerial capacity and autonomy policy suggest opportunities to strengthen partnership governance, clarify stakeholder responsibilities, improve coordination, and establish participatory decision-making arrangements. These findings are consistent with Tereshchenko et al. (2024), who emphasized the importance of appropriate collaboration strategies, organizational capabilities, and structured mechanisms in developing productive and sustainable university–industry relationships. Furthermore, Bamford et al. (2024) highlighted the importance of active facilitation, openness, and expert engagement throughout the partnership process to achieve meaningful collaboration outcomes.

Overall, the results indicate that academic–industry partnerships have established a favorable foundation for collaboration, particularly in terms of shared vision, financial management, and mutual trust. Nevertheless, strengthening leadership capacity, institutional autonomy, and stakeholder engagement may further enhance partnership implementation, promote institutional effectiveness, and support the development of graduates with competencies aligned with industry requirements. These priorities are also consistent with Yang et al. (2025), who emphasized the importance of addressing stakeholder-related drivers and barriers in strengthening university–industry collaborative initiatives

Table 2. Comparative Assessment of Academic–Industry Partnership

Areas of Concern		SS	MSS	df	F-value	Critical Value	Interpretation	Decision
1. Mutual trust	Bet. Grp	0.007	0.003	2	0.20085	3.55	Not Significant	Accept Ho
	Within Grp.	0.349	0.019	18				
2. Shared vision	Bet. Grp.	0.007	0.003	2	0.05332	3.55	Not	Accept

	Within Grp.	1.187	0.065	18			Significant	Ho
3. Autonomy policy	Bet. Grp.	0.02	0.01	2	0.24786	3.55	Not Significant	Accept Ho
	Within Grp.	0.757	0.042	18				
4. Financial Management	Bet. Grp.	0.0007	0.0003	2	0.00626	3.55	Not Significant	Accept Ho
	Within Grp.	1.07	0.059	18				
5. Institutional interest	Bet. Grp.	0.124	0.062	2	1.77079	3.55	Not Significant	Accept Ho
	Within Grp.	0.631	0.035	18				
6. Leadership and Managerial Capacity	Bet. Grp.	0.083	0.041	2	0.95577	3.47	Not Significant	Accept Ho
	Within Grp.	0.918	0.043	21				

Level of Significance: 0.05

As presented in Table 2, the computed F-values for mutual trust (0.20085), shared vision (0.05332), autonomy policy (0.24786), financial management (0.00626), institutional interest (1.77079), and leadership and managerial capacity (0.95577) were all lower than their corresponding critical values of 3.55 and 3.47 at the 0.05 level of significance. These results indicate that there were no statistically significant differences among the assessments of school managers, OJT/faculty coordinators, and industry partners across the six dimensions of strategic academic–industry partnerships. Therefore, the null hypothesis is not rejected.

The findings suggest that school managers, OJT/faculty coordinators, and industry partners hold generally comparable perspectives on the key elements of effective academic–industry partnerships. This alignment provides a favorable basis for strengthening collaboration through mutual trust, shared objectives, institutional support, sound financial management, and effective leadership. The results are supported by Vuoriainen et al. (2025), whose systematic literature review identified clarity, communication, commonality, commitment, continuity, and confidence as essential factors in successful higher education–industry collaboration. These factors underscore the importance of establishing shared goals, clearly defined responsibilities, consistent communication, and sustained stakeholder commitment.

Similarly, Marques et al. (2026) emphasized the role of institutional support in encouraging university–industry collaboration by influencing how academic personnel perceive its benefits and costs. Their findings highlight the value of supportive institutional structures, policies, and strategic initiatives in promoting collaborative engagement. Taken together, these studies reinforce the importance of maintaining a shared understanding among stakeholders while strengthening institutional mechanisms that support mutually beneficial and sustainable partnerships.

Table 3 Facilitating Conditions

Facilitating condition	Composite WM	Interpretation
Support activities for planning and cooperation	4.27	Highly Encountered
Clear competencies, duties, and partner relations	4.23	Highly Encountered
Partnership tools, formal agreements, and tailored training	4.19	Encountered
Safe learning environment for reviewing progress	4.07	Encountered
Information and communication strategy	4.05	Encountered
Overall facilitating conditions	4.08	Encountered

Table 3 presents the facilitating conditions associated with academic–industry partnerships, which obtained an overall weighted mean of 4.08, interpreted as Encountered. Support activities for planning and cooperation received the highest rating (WM = 4.27), followed by clear competencies, duties, and partner relations (WM = 4.23). Partnership tools, formal agreements, and tailored training obtained a weighted mean of 4.19, while a safe learning environment for reviewing progress and information and communication strategies received weighted means of 4.07 and 4.05, respectively. These results highlight the importance of institutional support,

coordinated planning, clearly defined responsibilities, and effective communication in facilitating productive academic–industry partnerships.

The findings emphasize that structured planning, role clarification, and stakeholder coordination contribute to establishing collaborative relationships that align academic objectives with industry expectations. The high rating for planning and cooperation underscores the value of institutional assistance and shared decision-making, while clearly defined competencies and responsibilities promote accountability and active stakeholder participation. These findings are consistent with the OECD (2023), which emphasized cooperation among educational institutions, employers, and other stakeholders in strengthening education and skills development. Similarly, the European Commission (2024) highlighted structured collaboration between higher education institutions and external partners as an important mechanism for promoting innovation, knowledge transfer, and responsiveness to labor-market needs.

Overall, the findings indicate that facilitating conditions provide a favorable foundation for strengthening academic–industry collaboration. Sustaining institutional support while enhancing formal agreements, communication strategies, progress monitoring, and partner development activities may further improve coordination and reinforce long-term institutional commitment. These considerations provide relevant inputs for the proposed strategic plan toward sustainable academic–industry partnerships and improved graduate preparation.

Table 4 Constraining Conditions

Constraining condition	Composite WM	Interpretation
Funding limited to a defined period	4.28	Highly Encountered
Differing values and working styles	4.19	Encountered
Self-interest among partnership members	4.12	Encountered
Limited conceptual/vision-oriented problem-solving	4.04	Encountered
Unclear partnership structure and responsibilities	3.99	Encountered
Insufficient partnership-management skills	3.81	Encountered
Overall constraining conditions	4.06	Encountered

Table 4 presents the constraining conditions associated with academic–industry partnerships, which obtained an overall weighted mean of 4.06, interpreted as Encountered. Funding limited to a defined period received the highest rating (WM = 4.28), followed by differences in organizational values and working styles (WM = 4.19) and self-interest among partnership members (WM = 4.12). Limited conceptual and vision-oriented problem-solving obtained a weighted mean of 4.04, while unclear partnership structures and responsibilities received 3.99. Insufficient partnership-management skills obtained the lowest rating (WM = 3.81). These findings highlight financial continuity, organizational differences, and stakeholder alignment as important considerations in sustaining effective academic–industry collaboration.

The results emphasize the importance of establishing sustainable funding arrangements, aligning institutional and industry priorities, and promoting transparent partnership management. The high rating for time-limited funding underscores the need for financial strategies that support continuity beyond individual projects or funding periods. Likewise, differences in organizational values and working styles highlight the value of open communication, shared expectations, and clearly defined responsibilities. These findings are consistent with Rossoni et al. (2024), who identified financial limitations, institutional differences, and cultural barriers as challenges to university–industry collaboration. Similarly, Meha and Loku (2025) and Suleman and Suleman (2025) emphasized the importance of aligning partnership expectations, resource allocation, organizational priorities, and communication practices.

Overall, the findings suggest that strengthening academic–industry partnerships requires sustained financial support, organizational alignment, transparent agreements, and enhanced managerial capacity. Addressing these priorities through long-term resource planning, clearly defined partnership responsibilities, and capacity-

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building initiatives may improve collaboration and reinforce the sustainability of institutional and industry relationships. These considerations provide important inputs for the proposed strategic plan.

Table 5. Comparative Assessment of Academic–Industry Partnership

Areas of Concern		SS	MSS	df	F-value	Critical Value	Interpretation	Decision
1. Facilitating Factors	Bet. Grp Within Grp.	1348.10 35.174	337.02 1.172	4 30	136.22	2.69	Significant	Reject Ho
2. Constraining Factors	Bet. Grp. Within Grp.	1380.34 35.208	345.08 1.173	2 30	294.03	2.69	Significant	Reject

Table 5 presents the differences in the facilitating and constraining conditions associated with academic–industry partnerships across the five participating higher education institutions (HEIs). The computed F-values for facilitating conditions (F = 136.22) and constraining conditions (F = 294.03) exceeded the reported critical value of 2.69 at the 0.05 level of significance. These results indicate statistically significant differences among the institutional assessments of both facilitating and constraining conditions. Accordingly, the null hypothesis is rejected, suggesting that the five HEIs have varying experiences, institutional capacities, and operational contexts in implementing and sustaining academic–industry partnerships.

The findings suggest that institutional characteristics influence the conditions supporting or challenging collaborative initiatives. Differences in facilitating conditions may reflect variations in communication strategies, partnership management systems, stakeholder participation, and institutional support mechanisms. Similarly, differences in constraining conditions may be associated with variations in financial resources, organizational values, working arrangements, and the allocation of partnership responsibilities. These findings are consistent with Franco et al. (2025), who emphasized the influence of organizational culture and institutional characteristics on university–enterprise cooperation. Abu Sa'a and Asplund (2025) likewise highlighted the importance of social capital, trust, and knowledge sharing, while Altynbassov (2026) and Tolin and Piccaluga (2025) underscored the roles of governance, managerial capabilities, financial sustainability, and institutional resources in strengthening university–industry collaboration.

Overall, the findings highlight the importance of adopting institution-responsive strategies in developing sustainable academic–industry partnerships. Although the five HEIs share common collaborative objectives, their distinct organizational structures, resources, management practices, and stakeholder relationships call for approaches that address their respective institutional contexts. These results provide an empirical basis for the proposed Boundary-Crossing Framework, particularly its emphasis on governance and role clarity, sustainable resourcing, stakeholder engagement, and collaborative learning.

Table 6. Proposed Boundary-Crossing Framework for Sustainable Academia–Industry Collaboration

The proposed framework translates the study findings into five interrelated implementation phases designed to strengthen collaboration between higher education institutions (HEIs) and industry partners. It covers shared purpose and trust, governance and role clarity, sustainable resourcing, boundary-spanning learning, and monitoring, evaluation, and partnership renewal. The implementation schedule spans 12 months following institutional approval, with annual monitoring and renewal thereafter. The performance indicators serve as proposed targets and may be refined based on institutional baselines, available resources, and mutually agreed partnership commitments.

Implementation phase and timeline	Framework area and key activities	Lead stakeholders	Supporting stakeholders	Proposed performance indicators	Means of verification and monitoring
1. Partnership	Shared Purpose	HEI President/	Industry	Partnership	Meeting

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Mobilization and Baseline Assessment Months 1–2	and Trust: Conduct joint planning and consultation sessions; identify institutional and industry priorities; establish common objectives, expectations, and baseline indicators.	Vice President; College Dean	representatives; OJT/faculty coordinators; school managers; partnership committee	committee established in each HEI; all participating partners represented in consultations; jointly approved partnership objectives and baseline indicators.	minutes; stakeholder mapping; consultation records; baseline assessment report. Initial monitoring.
2. Governance and Partnership Agreements Months 3–4	Governance and Role Clarity: Review and strengthen memoranda of agreement (MOAs); establish roles, responsibilities, decision-making procedures, communication channels, and accountability mechanisms; approve partnership work plans.	HEI Legal/ Administrative Office; College Dean	Industry HR and training managers; OJT coordinators; partnership committee	Updated MOA or addendum for each active partnership; approved roles-and-responsibilities matrix; designated focal persons for all active partnerships.	Approved MOAs; partnership work plans; responsibility matrices; quarterly monitoring reports.
3. Sustainable Resource Mobilization Months 5–6	Sustainable Resourcing: Develop annual and multi-year resource plans; identify financial, human, technical, and in-kind contributions; establish resource-sharing and partnership-continuity arrangements.	HEI Finance and Planning Office	Industry partners; College Dean; partnership committee	Approved annual resource plan for each HEI; documented resource commitments for active partnerships; at least one continuity or alternative resource arrangement per partnership.	Approved budgets; resource plans; contribution registers; semiannual monitoring reports.
4. Collaborative Learning and Partnership Implementation Months 7–10	Boundary-Spanning Learning: Conduct joint curriculum and OJT reviews; align workplace learning activities with program outcomes and industry requirements;	Program Chair; OJT /Faculty Coordinators	Industry mentors and supervisors; faculty members; students; curriculum committees	At least one joint curriculum or OJT review per program; documented learning plans and designated supervisors for all OJT placements; at least one	Curriculum review records; OJT learning plans; supervisor assignments; training attendance; stakeholder

	provide mentor and supervisor development; establish regular feedback mechanisms.			mentor-development activity per partner.	feedback. End-of-term monitoring.
5. Partnership Evaluation and Renewal Months 11–12 and annually thereafter	Monitoring, Evaluation, and Partnership Renewal: Assess partnership performance; gather stakeholder feedback; identify improvement priorities; implement corrective measures; and review agreements for continuation, modification, or renewal.	HEI Quality Assurance Office; Partnership Committee	School managers; OJT coordinators; industry partners; faculty members; students	Annual partnership scorecard completed for each HEI; stakeholder feedback response rate of at least 80%; corrective-action plan issued within 30 days after evaluation; documented renewal or revision decision for every active MOA.	Partnership scorecards; stakeholder surveys; evaluation reports; corrective-action logs; renewed or revised agreements. Annual review.

Note. The implementation periods begin upon institutional approval. Performance indicators are proposed targets subject to baseline assessment, resource availability, and agreement among participating institutions and industry partners. Monitoring and evaluation are conducted throughout implementation, with formal partnership evaluation and renewal undertaken annually.

The proposed Boundary-Crossing Framework provides a structured and collaborative approach to strengthening sustainable academia–industry partnerships. Through shared purpose and trust, clear governance arrangements, sustainable resource mobilization, collaborative learning, and systematic evaluation, the framework seeks to promote institutional alignment and mutually beneficial relationships. Its phased implementation recognizes the distinct capacities and priorities of higher education institutions and industry partners while encouraging shared accountability, continuous improvement, and long-term collaboration. As an evidence-informed strategic initiative, the framework may guide participating institutions in enhancing partnership management, improving industry engagement, and strengthening the relevance of hospitality and tourism education to professional practice.

Table 7 Evaluation of the Proposed Sustainable Strategic Plan

Evaluation criterion	Overall WM	Interpretation
Suitability	4.18	Suitable
Acceptability	4.26	Highly acceptable
Feasibility	4.45	Highly feasible

Table 7 presents the evaluation of the proposed sustainable strategic plan in terms of suitability, acceptability, and feasibility. Feasibility obtained the highest weighted mean (WM = 4.45), interpreted as Highly Feasible, followed by acceptability (WM = 4.26), interpreted as Highly Acceptable. Suitability received a weighted mean of 4.18, interpreted as Suitable. These results indicate favorable assessments of the proposed plan across the three evaluation criteria, particularly regarding its perceived practicality and potential for implementation.

The findings suggest that the proposed strategies are considered relevant to the identified conditions of academic–industry partnerships and responsive to the needs of participating institutions and industry stakeholders. The favorable feasibility rating highlights the perceived potential of the proposed initiatives for

implementation, while the acceptability and suitability assessments reflect their alignment with stakeholder expectations and partnership priorities. These considerations are consistent with Kidder et al. (2024), who emphasized the importance of assessing the feasibility, appropriateness, and acceptability of proposed interventions before implementation. Similarly, the Education Endowment Foundation (2024) highlighted the value of systematic preparation, supported implementation, and sustainability planning in achieving meaningful program development.

Overall, the results provide a favorable basis for advancing the proposed Boundary-Crossing Framework for Sustainable Academia–Industry Collaboration toward institutional consideration and implementation planning. The positive assessments support further efforts in resource allocation, stakeholder engagement, and the establishment of appropriate implementation mechanisms. Nevertheless, these ratings reflect perceptions of the plan's suitability, acceptability, and feasibility rather than demonstrated implementation outcomes. Subsequent monitoring and evaluation will therefore be necessary to determine its actual contribution to strengthening academic–industry partnerships and improving hospitality and tourism education.

Study Limitations

The study provides context-specific insights into academic–industry partnerships among five selected higher education institutions (HEIs), based on the perspectives of stakeholders directly involved in collaborative initiatives. Its findings offer a foundation for further research involving additional institutions and for examining the proposed strategic plan through actual implementation, particularly its contributions to student competencies, graduate employability, and partnership sustainability.

CONCLUSION

1. Academic–industry partnerships demonstrate strong shared vision, financial management, and mutual trust, while leadership, autonomy policy, and institutional commitment require further strengthening.
2. School managers, OJT/faculty coordinators, and industry partners demonstrate comparable assessments of academic–industry partnerships.
3. Planning and cooperation serve as key facilitating conditions, while limited funding and organizational differences remain significant constraints.
4. The five participating HEIs demonstrate significant differences in their assessments of facilitating and constraining factors.
5. The proposed sustainable strategic plan provides an integrated approach to strengthening academic–industry partnerships.
6. The proposed plan received favorable assessments in terms of suitability, acceptability, and feasibility, supporting its potential implementation.

RECOMMENDATIONS

1. Higher education institutions (HEIs), in collaboration with industry partners, should establish a systematic monitoring and evaluation mechanism to regularly assess the progress of academic–industry partnerships. This will help determine the implementation status of the proposed strategic plan, identify areas for improvement, and facilitate appropriate adjustments to achieve sustainable partnership outcomes.
2. Academic institutions and industry partners should strengthen collaborative planning by jointly assessing institutional capabilities, academic strengths, industry competencies, and workforce requirements. Establishing common interests, shared objectives, and mutually beneficial commitments can provide a foundation for developing long-term and sustainable partnerships.
3. School managers, OJT/faculty coordinators, and industry partners should enhance alliance management through stronger institutional commitment, clear partnership policies, participatory leadership, and well-defined responsibilities. These measures can promote transparency, accountability, effective coordination, and continuity in collaborative activities.
4. Each participating HEI should formulate tailored strategies and action plans that consider its organizational context, available resources, partnership experiences, and identified facilitating and

constraining factors. This approach will ensure that interventions respond to institutional needs while supporting common academic–industry partnership objectives.

5. Higher education institutions should explore opportunities to establish partnerships with international industries and academic organizations. Such initiatives may facilitate knowledge exchange, exposure to global industry practices, international linkages, and the adoption of emerging approaches to academic–industry collaboration.
6. Future researchers may conduct related studies involving additional higher education institutions, industry sectors, and geographical areas to broaden the understanding of sustainable academic–industry partnerships. Longitudinal and implementation-based research may also examine the contributions of strategic partnership initiatives to graduate competencies, employability, institutional effectiveness, and partnership sustainability.

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