#### Original Researcher Article

# **Industry Involvement in the Development Stage of International Education Programs in the Philippines**

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#### **ABSTRACT**

International education has become a strategic tool for enhancing graduate employability and national competitiveness. This study examined how international education programs in the Philippines are managed during their development stage, with particular emphasis on industry participation. Guided by a qualitative descriptive research design, data were collected from program heads of higher education institutions (HEIs) and representatives from industry partners using semi-structured interviews and document reviews. Thematic analysis revealed four major areas: (a) systematic management practices encompassing needs analysis, program matching, funding strategies, and ethical oversight; (b) dynamic industry participation through curriculum co-design, faculty development, and specialized program expansion; (c) key challenges such as communication gaps, cultural differences, limited funding, and recruitment constraints alongside opportunities for innovation, diversified revenue streams, and improved global standing; and (d) the development of the Quadruple Alignment Framework, a business model integrating needs, program, funding, and ethics-culture alignment to maximize industry collaboration. Findings provide empirical evidence to support CHED's internationalization agenda and offer actionable insights for HEIs, industry partners, and policymakers in designing sustainable and globally competitive programs.

**Keywords:** International Education, Higher Education Internationalization, Industry—Academia Collaboration, Program Development, Quadruple Alignment Framework



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#### INTRODUCTION

International education has emerged as a strategic lever for enhancing graduate employability and strengthening national competitiveness. Philippine higher education institutions (HEIs) are increasingly pursuing global linkages through curriculum innovation, student and faculty mobility, and international collaborations. The Commission on Higher Education (CHED) has intensified its internationalization initiatives: the number of Philippine HEIs appearing in global rankings increased from 52 in 2023 to 86 in 2024 (Philippine News Agency, 2024a). This rise reflects initiatives such as sponsored participation in global education fairs, immersion visits to world-class institutions like Harvard and MIT, and capacity-building workshops designed to meet international ranking standards (Philippine News Agency, 2024a).

CHED's policy agenda continues to emphasize internationalization. Central to this effort is CMO No. 55, Series of 2016, which provides a framework for developing globally competent graduates and fostering innovation (Commission on Higher Education [CHED],

2016). Complementing this is the *Philippine Higher Education Internationalization Roadmap* 2023–2027, which underscores equitable access, improved quality, and stronger global competitiveness (ANTENA Project, 2023).

A key element of this agenda is deepening partnerships with industry stakeholders. The Board of Investments' (BOI) Academe–Industry Matching (AIM!) Program, launched in November 2024, exemplifies this push. The initiative convenes academe, government, private sector, and development partners to align curricula with workforce needs in high-value industries such as aerospace, information technology, semiconductors, automotive (including electric vehicles), renewable energy, chemicals, and telecommunications (Board of Investments, 2024; Daily Guardian, 2024).

Despite these progressive policies and initiatives, empirical research remains limited—particularly concerning how industries contribute during the development stage of international education programs. Critical areas such as needs analysis, curriculum

alignment, co-funding mechanisms, cultural competence, and ethical considerations remain underexamined. While policy frameworks articulate objectives, operational processes often lack systematic study.

This research addresses this gap by describing how international education programs in the Philippines are developed, with emphasis on industry participation. It examines challenges, opportunities, and proposes a business model to enhance industry engagement in program design. In doing so, the study supports CHED's internationalization policies (e.g., CMO No. 55, Series 2016), the *Philippine Higher Education Internationalization Roadmap 2023–2027*, and BOI's AIM! objectives (CHED, 2016; ANTENA Project, 2023; Board of Investments, 2024).

#### Research Questions

- 1. How may the management of the international education program at the development stage be described in terms of:
- 1.1. Needs analysis
- 1.2. Program matching
- 1.3. Funding models and strategies
- 1.4. Cultural awareness
- 1.5. Ethical considerations

How may industry participation in program development be described?

What challenges and opportunities emerge from industry–program partnerships at the development stage?

What business model can be proposed to maximize industry's role at the development stage?

#### Significance of the Study

This study provides empirical evidence on how CHED's internationalization goals are operationalized during the development stage of higher education programs. By examining the dynamics between industry and academe, it addresses a critical knowledge gap and supports the formulation of evidence-based policies and institutional strategies (CHED, 2016; ANTENA Project, 2023). Specifically, the research highlights ways to align program design with labor-market demands while safeguarding ethical standards and cultural integrity—key priorities emphasized in the *Philippine Higher Education Internationalization Roadmap* 2023–2027 (ANTENA Project, 2023).

The proposed business model generated from this research is intended as a practical guide for HEIs, industry partners, and policymakers. It seeks to foster more effective, sustainable, and mutually beneficial partnerships that advance national competitiveness and graduate employability in line with CHED's internationalization agenda and the government's broader workforce development initiatives (Board of Investments, 2024; Daily Guardian, 2024).

#### **METHODOLOGY**

#### Research Design

This study adopted a qualitative descriptive research design to generate a rich and contextualized understanding of how international education programs in the Philippines are managed during their development stage. Such a design is appropriate for capturing participants' perspectives and institutional practices in real-world contexts. Data were analyzed using thematic analysis, a flexible yet rigorous approach for identifying, analyzing, and interpreting recurrent patterns within qualitative data (Braun & Clarke, 2021). This methodological combination allowed for an in-depth examination of management practices, industry participation, and the challenges and opportunities associated with operationalizing internationalization goals.

#### **Participants**

This study involved key informants from both higher education institutions (HEIs) and industry partners who were directly engaged in the development stage of international education programs. Purposive sampling was used to ensure that participants possessed firsthand knowledge of program design, industry collaboration, and policy implementation (Palinkas et al., 2015).

A total of five participants took part in the study, consisting of three program heads or coordinators from HEIs offering international education programs and two representatives from industry partners who had collaborated in program development. This composition allowed for diverse yet focused perspectives from both academe and industry.

#### Data Collection

Data were gathered through semi-structured interviews with HEI program heads and industry representatives. This approach allowed participants to elaborate on their experiences while ensuring that key topics were consistently addressed. To triangulate findings and enhance trustworthiness, the interviews were supplemented by a document review of program proposals, memoranda of understanding (MOUs), and institutional policies (Carter et al., 2014).

Field notes were taken during the interviews and follow-up communications to capture contextual information and nonverbal cues. Each interview lasted approximately 45–60 minutes and was conducted either in person or through secure online platforms, depending on participant availability and health or scheduling considerations.

#### Data Analysis

All interviews were audio-recorded, transcribed verbatim, and independently reviewed for accuracy. Data were managed and coded using NVivo 14 software. Following principles of open and axial coding, responses were broken down into meaningful units and then compared to identify relationships and patterns. Codes were subsequently grouped into broader themes aligned with the study's research questions—

specifically, needs analysis, program matching, funding models, cultural awareness, and ethical considerations. To further organize and display the findings, thematic matrices were developed around four focal areas: (a) management practices, (b) industry participation, (c) challenges and opportunities, and (d) proposed practices and models. This process drew on Braun and Clarke's (2021) guidance for rigorous thematic analysis to ensure a systematic and transparent approach.

#### **Ethical Considerations**

Prior to data collection, the study received ethical clearance from the university's Research Ethics Committee. All participants were provided with an informed consent form explaining the study's objectives, procedures, risks, and benefits, and their right to withdraw at any point without penalty. Participation was entirely voluntary, and respondents were assured of anonymity and confidentiality. To protect identities, pseudonyms were used in all transcripts, codes, and reports.

Digital files—including interview recordings, transcripts, and field notes—were stored on password-protected drives accessible only to the research team. These procedures align with widely accepted standards for ethical conduct in human-subject research (World Medical Association, 2013).

#### RESULTS AND DISCUSSION

This section presents the findings of the study and discusses them in relation to existing literature. Four key areas emerged from the thematic analysis: (a) management practices at the development stage, (b)

industry participation, (c) challenges and opportunities, and (d) the proposed business model.

#### Management Practices at the Development Stage

Analysis of interview data revealed recurring themes on how the Chinese International Program was managed during its development stage. These included needs analysis, program matching, funding strategies, and ethical considerations, reflecting a systematic approach to program design that prioritizes stakeholder engagement, alignment with industry requirements, financial sustainability, and ethical compliance.

#### Needs Analysis

Participants highlighted structural weaknesses—such as limited international engagement and small management teams—which aligns with literature emphasizing thorough needs assessments to bridge gaps between institutional capabilities and program objectives (de Wit & Altbach, 2020). The establishment of dedicated management offices improved coordination, consistent with recent governance best practice guidance in international program administration (Knight, 2020).

A human-centered approach emerged with focus on language support, alignment of curriculum, and faculty preparation, reflecting evidence that intercultural competence and pedagogy-centered support enhance program effectiveness (Deardorff, 2020). Mechanisms for continuous feedback and realignment (e.g., adjustments to meet regulatory standards like CSCSE) highlight the importance of iterative evaluation for improving stakeholder experience and program quality (Braun & Clarke, 2021).

Theme Illustrative Quote

Weaknesses in Program "Examined weaknesses in the program, such as a lack of focus on international cooperation Structure and a limited management team." (Participant 1)

Dedicated Management "Established separate offices to manage different aspects of the international program based Offices on specific needs identified." (Participant 5)

Student and Faculty "Prioritized student needs, especially language barriers and curriculum alignment; Focus emphasized faculty and staff preparedness." (Participant 2)

Language and Cultural "Stressed the importance of integrating cultural understanding into faculty training and providing additional English programs for students." (Participant 4)

Continuous Monitoring "Implemented feedback channels to address student hardships and ensure a positive and Feedback experience; adjusted protocols to align with CSCSE requirements." (Participant 5)

Table 1. Needs Analysis in the Development Stage of the Chinese International Program

#### **Program Matching**

Industry engagement guided curriculum revisions based on labor-market trends—a practice underscored in recent studies of industry—academia collaboration enhancing relevance and graduate outcomes (Esangbedo

et al., 2024). International collaboration, as exemplified by ties with China and expansion into Chinese Medicine programs, reflects globalization trends in higher education that foster specialized, culturally nuanced offerings (Iqbal et al., 2022).

Theme Illustrative Quote

Ongoing Industry Communication "Regular communication with industry partners to understand their evolving needs." (Participant 1)

Curriculum Revisions Aligned with "Regular curriculum revisions are based on industry needs and CHED policies." (Participant 2)

Theme	Illustrative Quote
International Cooperation	"The collaboration with China has become a significant symbol of international cooperation and cultural exchange." (Participant 5)
Expansion into Specialized Fields	"Interest in incorporating Chinese Medicine programs influenced by industry insights and potential to diversify medical education." (Participant 3)

Table 2. Program Matching and Industry Collaboration in the Development Stage

#### **Funding Models and Strategies**

Financial approaches shifted from university subsidies toward self-sustaining models fueled by enrollment growth. While funding remains concentrated in student fees, the exploration of industry co-investment reflects emerging practices in international higher education financing aimed at mitigating risks and enhancing resilience (de Wit & Altbach, 2020).

Theme	Illustrative Quote
Shift from Subsidy to Self-Sustainability	"Initially, the program was heavily subsidized by the university; as it matured, student enrollment increased revenue." (Participant 1)
Limited Diversification	"Currently, financing strategies are limited to tuition and management fees, with no diversified funding sources." (Participant 5)
Innovative Revenue Streams	"Considering inviting industry partners to invest in university projects to become co- owners, adding unconventional revenue streams." (Participant 1)

Table 3. Funding Models and Financial Strategies in Program Development

#### **Ethical Considerations**

Dedicated oversight offices ensured transparent communication and student well-being; supervision protocols and culturally responsive facilities (e.g., prayer rooms) highlighted our institution's ethical commitment. These reflect core principles in international education ethics, where student support and cultural inclusivity reinforce credibility and positive outcomes (Deardorff, 2020).

Theme	Illustrative Quote
Ethical Guidelines	"Established a separate office to handle communications and ensure official notifications of changes." (Participant 1)
Supervision and Safety	"Strict regulations for bachelor students, including requiring permission for travel and high standards of supervision." (Participant 5)
Respect for Religiou Diversity	s "Policies protect students' rights to practice their faith freely; facilities like prayer rooms are provided for Muslim students." (Participant 2)

Table 4. Ethical and Cultural Considerations in Program Development

Management practices at the development stage were characterized by systematic needs assessment, industry-informed curriculum design, adaptive funding strategies, and strong ethical oversight—collectively supporting a student- and faculty-centered approach that aligns with international best practices.

#### **Industry Participation**

Industry partners facilitated continual program relevance through regular consultation, curriculum summits, and co-design. This aligns with research highlighting the positive impact of academia-industry feedback loops on graduate employability (Esangbedo et al., 2024). Cultural and language modules—supported by international collaborators such as the Confucius Institute—enhanced intercultural competence (Deardorff, 2020). Industry also contributed to program diversification and advanced training, particularly in fields like Chinese Medicine and nursing, which echoes

trends in responsive, market-aligned program expansion (Iqbal et al., 2022). Finally, industry-led faculty development aligned educators with current professional standards, strengthening both academic competence and institutional relevance.

#### **Challenges and Opportunities**

Challenges included communication gaps, cultural misalignment, funding constraints, and limited managerial capacity—issues commonly cited in transnational education contexts (de Wit & Altbach, 2020; Esangbedo et al., 2024).

Opportunities emerged via enhanced curriculum responsiveness, industry networks, diversified funding models via joint ventures, and elevated institutional prestige—highlighting the strategic value of collaboration (Iqbal et al., 2022; de Wit & Altbach, 2020).

Challenges	Opportunities
Communication gaps	Increased curriculum relevance and employability
Cultural differences	Access to technology and networks

Challenges Opportunities

Limited subsidies Diversification of revenue streams

Recruiting qualified managers Enhanced global rankings and credibility

Table 5. Key Challenges and Opportunities Identified During the Development Stage of the Chinese International Program

### Proposed Business Model: The Quadruple Alignment Framework

Based on the thematic analysis, the Quadruple Alignment Framework was conceptualized to maximize industry participation at the development stage. It integrates four pillars:

- 1. **Needs Alignment**: Ongoing, collaborative assessments with stakeholders (students, faculty, industry) to enhance relevance (Esangbedo et al., 2024).
- 2. **Program Alignment**: Joint curriculum design that balances industry expectations with regulatory standards (Knight, 2020).
- 3. Funding Alignment: Diversification through tuition, specialized programs, and shared industry investment for sustainability (de Wit & Altbach, 2020).

  4. Fibics & Culture Alignment: Institutionalized
- 4. Ethics & Culture Alignment: Institutionalized practices to uphold welfare, transparency, and inclusiveness (Deardorff, 2020).

This holistic model enables HEIs to maximize the impact of industry collaboration, enhance sustainability, and prepare graduates for success in a globalized workforce (Bamber & Tett, 2021; Shah et al., 2021).

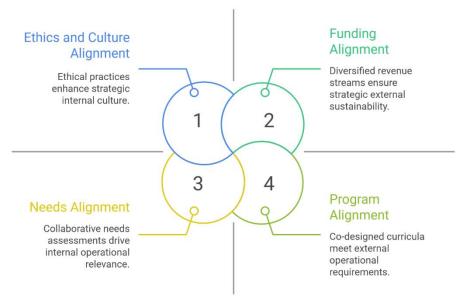


Figure 1. Quadruple Alignment Framework

#### CONCLUSION

This study underscores the pivotal role of industry engagement in the development stage of international education programs in the Philippines. Findings from the Chinese International Program reveal that sustained collaboration with industry partners aligns curricula with labor market demands, strengthens students' cultural and language preparedness, and facilitates the creation of specialized programs responsive to global trends (Shah, Alam, & Khan, 2021; Knight, 2020).

Addressing persistent challenges—such as communication gaps, cultural differences, limited government funding, and the difficulty of recruiting qualified managers—is essential to ensure the effectiveness and sustainability of international programs (Altbach & Knight, 2021; Henderson, Garcia, & Evans, 2022). Incorporating continuous monitoring, iterative feedback loops, and culturally responsive practices further enhances program quality, institutional credibility, and global competitiveness.

This study also introduces the Quadruple Alignment Framework, a strategic business model for maximizing industry participation through needs alignment, program alignment, funding alignment, and ethics and culture alignment. The framework provides higher education institutions (HEIs) with a systematic approach to enhance program relevance, diversify revenue streams, and institutionalize robust ethical and cultural practices. By adopting this model, HEIs can strengthen the sustainability, responsiveness, and international reputation of their programs, contributing to the Philippines' broader goals for educational internationalization (Bamber & Tett, 2021; Deardorff, 2020).

#### Recommendation

Higher Education Institutions (HEIs) should strengthen partnerships with industry stakeholders through regular consultations, joint curriculum development, and structured feedback mechanisms. They are encouraged to implement continuous needs analysis and monitoring

to address evolving student and faculty requirements, while also developing diversified funding strategies including industry co-investment opportunities—to enhance program sustainability. Industry partners, in turn, are urged to actively participate in program codesign, provide insights into emerging skill needs, and support specialized training initiatives. Collaboration with HEIs to offer mentorship, workshops, and resources can further enhance student employability and international competencies. Future research may examine the long-term impact of industry collaboration on graduate employability and program sustainability, explore industry involvement across various types of international programs and regions in the Philippines, and investigate the effectiveness of the Ouadruple Alignment Framework in different institutional and cultural contexts. By integrating these recommendations, HEIs and industry partners can establish more strategic, sustainable, and globally competitive international education programs.

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