

Examining Multidimensional Internationalization and Institutional Development in a Global South University: Evidence from a Philippine Public Higher Education Institution

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ABSTRACT

Internationalization has become a strategic priority in higher education institutions seeking to strengthen global engagement and institutional capacity aligned with Sustainable Development Goal 4. This study examined how multidimensional internationalization practices relate to institutional development and perceived internationalization performance in a Philippine public university using an explanatory sequential mixed-methods design involving 146 survey respondents and 15 interview participants. Structural equation modeling revealed significant associations among internationalization in instruction, research collaboration, extension partnerships, gender inclusivity, and institutional development, which strongly predicted internationalization performance. Qualitative findings highlighted institutional constraints, inclusivity concerns, and resource-sensitive implementation strategies. The study emphasizes the importance of inclusive, context-responsive, and institutionally supported internationalization approaches in Global South public universities.

Keywords: Gender Inclusivity, Global South Universities, Higher Education Internationalization, Institutional Development, Structural Equation Modeling, Sustainable Development Goal 4

INTRODUCTION

Internationalization has become a strategic priority in higher education institutions seeking to strengthen academic quality, research collaboration, and global engagement within increasingly interconnected knowledge systems (de Wit & Altbach, 2021; Knight, 2003). Universities worldwide have expanded globally oriented initiatives through curriculum innovation, collaborative research, institutional partnerships, intercultural learning environments, and digital forms of global engagement. These developments are closely associated with broader higher education goals related to intercultural competence, knowledge exchange, global citizenship, and inclusive quality education aligned with Sustainable Development Goal 4 (UNESCO, 2017). In the Philippine context, recent studies have similarly emphasized the importance of preparing students and preservice teachers for multicultural and global settings through cultural intelligence, global citizenship education, and internationalized learning experiences (Biay & Tenorio, 2024).

Contemporary approaches have evolved beyond mobility-centered models toward institution-wide strategies that integrate international and intercultural dimensions across teaching, research, and extension functions (Knight, 2003). Higher education institutions increasingly adopt internationalization-at-home initiatives, virtual exchange, and collaborative online international learning (COIL) to expand participation beyond physical mobility programs. These approaches are particularly relevant for institutions operating within resource-constrained environments where financial and structural limitations may restrict participation in traditional exchange activities (de Wit & Altbach, 2021). Recent scholarship on critical virtual exchange further cautions that digital internationalization is not automatically inclusive because it may still be shaped by unequal access to technology, institutional constraints, and Global North knowledge dominance (Hauck et al., 2025).

Despite growing scholarship, important empirical and conceptual gaps remain. Existing studies frequently examine curriculum internationalization, research collaboration, mobility programs, or institutional partnerships independently, often treating these dimensions as separate indicators of global engagement rather than as interconnected institutional processes (de Wit & Altbach, 2021). Studies in Asia have shown that perceived institutional internationalization may influence student

satisfaction and outcomes, but such research often focuses on student-level experiences rather than broader institutional development mechanisms (Alcoba & La-Ongsri, 2024). Limited research has examined how multiple dimensions collectively relate to institutional development and perceived global engagement performance within an integrated analytical framework.

In addition, scholarship in this field continues to be dominated by Global North institutional perspectives and mobility-oriented models, leaving limited empirical understanding of how public universities in developing contexts operationalize inclusive and capacity-sensitive strategies (Marginson, 2014). Philippine studies indicate continuing needs in intercultural pedagogy, research collaboration, and institutional support for internationalization. For example, Butac et al. (2025) emphasized that intercultural education in Philippine higher education requires attention to lived experiences, institutional structures, and faculty–student realities rather than relying only on top-down policy perspectives. Similarly, Castulo et al. (2025) noted persistent challenges in Philippine educational research collaboration, including research productivity gaps, uneven institutional capacity, and the need for stronger policy and internationalization strategies.

Gender inclusivity was conceptualized in this study as an institutional enabling condition shaping equitable access to internationalization opportunities across teaching, research, partnerships, and global engagement activities. While gender inclusivity differs from the traditional functional domains of instruction, research, and extension, contemporary internationalization scholarship increasingly recognizes equity and inclusion as integral institutional dimensions influencing participation in globally oriented academic processes (Shahjahan & Kezar, 2013). In Global South higher education contexts, unequal access to international programs, mobility opportunities, leadership roles, and collaborative research participation may constrain the inclusiveness of institutional internationalization initiatives. Consequently, gender inclusivity was positioned in the present study as a contextually relevant institutional predictor associated with organizational readiness, equitable participation, and inclusive international engagement practices.

Addressing these gaps is particularly important in Global South higher education systems, where universities often balance aspirations for global engagement with institutional realities related to funding, infrastructure, research capability, digital access, and equitable participation. In such contexts, globally oriented initiatives may function not only as mechanisms for visibility and academic networking but also as strategies for institutional capacity building, academic innovation, and expanded access to intercultural learning opportunities. Recent Global South scholarship on COIL likewise stresses that online international collaboration must be designed with attention to decolonization, local contexts, power relations, and the unequal conditions under which institutions participate in global academic exchange (Frankish et al., 2025).

This study addresses these gaps by examining the relationships among internationalization in instruction, research collaboration, extension partnerships, and gender inclusivity and their associations with institutional development and perceived internationalization performance within a Philippine public university. Using an explanatory sequential mixed-methods design integrating structural equation modeling and qualitative thematic analysis, the study contributes a Global South-oriented analytical framework for examining how coordinated dimensions of global engagement relate to institutional capacity-building and broader institutional outcomes. Rather than proposing a universally generalizable model, the study provides context-sensitive empirical insights that may inform inclusive and resource-responsive strategies in public higher education institutions operating within developing contexts.

LITERATURE REVIEW

Conceptualizing Internationalization in Higher Education

Internationalization in higher education is widely understood as the process of integrating international, intercultural, and global dimensions into the purposes, functions, and delivery of higher education institutions (Knight, 2003). Earlier frameworks primarily emphasized student mobility, faculty exchange, and cross-border academic partnerships as central indicators of global engagement (de Wit & Altbach, 2021). Internationalization is further shaped by institutional rationales involving academic quality enhancement, economic competitiveness, cultural exchange, and geopolitical positioning (Chankseliani, 2018). However, recent scholarship increasingly critiques mobility-centered internationalization models for privileging elite participation, reproducing institutional inequalities, and reinforcing asymmetrical relationships between Global North and Global South institutions (Brandenburg & de Wit, 2011; Stein, 2021). These critiques contributed to the emergence of more inclusive and institutionally embedded perspectives that conceptualize internationalization as a multidimensional institutional process rather than a collection of isolated international activities.

Recent Global South scholarship increasingly challenges traditional internationalization models centered on market competitiveness and Global North dominance. Gur Geden (2026) demonstrated that international higher education may also function as a mechanism for solidarity building, South–South cooperation, and inclusive development. Examining Türkiye’s higher education strategies, the study emphasized that internationalization can promote multilateral cooperation, intercultural engagement, and sustainable institutional partnerships grounded in historical, cultural, and developmental priorities rather than solely economic objectives. These perspectives contribute to emerging Global South-oriented approaches that conceptualize internationalization as a context-sensitive and relational institutional process.

Contemporary literature highlights that internationalization extends beyond mobility programs to include curriculum internationalization, globally networked learning environments, collaborative research engagement, internationalized governance structures, and institutional partnerships (de Wit et al., 2015; Hudzik, 2012). Beelen and Jones (2015) emphasized that internationalization at home has become increasingly significant in democratizing access to global learning opportunities, especially for students who cannot participate in physical mobility programs. This shift reflects broader efforts to reposition internationalization as an institution-wide strategy that promotes intercultural learning within domestic educational environments.

Recent scholarship further emphasizes that technological transformation and Globalization 4.0 have significantly reshaped the internationalization landscape in higher education. Aydın (2021) argued that contemporary internationalization increasingly incorporates digitally mediated engagement, internationalization-at-home initiatives, and virtual global learning environments due to evolving technological and geopolitical conditions. The study further emphasized that internationalization is no longer solely dependent on physical mobility because higher education institutions increasingly utilize digital platforms, online collaboration, and globally connected learning systems to expand intercultural engagement opportunities. These developments are particularly relevant for public universities in developing contexts where cost-efficient and technology-enabled internationalization strategies may provide more inclusive access to global learning experiences.

Technology-mediated global learning environments have further transformed internationalization practices in higher education. Virtual exchange, collaborative online international learning (COIL), and globally connected classrooms enable students and faculty to engage in intercultural collaboration without requiring physical mobility (O'Dowd, 2018). Telecollaborative learning environments have also been associated with intercultural dialog, digital literacy development, and globally networked learning practices (Guth & Helm, 2017). Prior studies likewise suggest that COIL initiatives may enhance intercultural interaction, collaborative learning, and international engagement opportunities within digitally mediated educational environments (Appiah-Kubi & Annan, 2020). Hauck et al. (2025) argued that virtual exchange functions as a major catalyst for internationalization at home by integrating intercultural dialog into formal curricula while simultaneously developing transversal competencies such as communication, collaboration, digital literacy, and intercultural problem solving. Similarly, Frankish et al. (2025) emphasized that COIL initiatives create opportunities for Global South institutions to expand access to international learning spaces previously limited to mobility-based programs.

At the same time, scholars caution that internationalization initiatives are not inherently equitable or inclusive. Shahjahan and Kezar (2013) argued that

internationalization policies frequently reproduce neoliberal and market-oriented agendas prioritizing institutional branding and competitiveness over equity and social inclusion. Likewise, de Oliveira Andreotti et al. (2016) noted that internationalization may unintentionally reinforce colonial knowledge hierarchies when Global North academic frameworks are uncritically transferred into developing contexts. Critical Global South perspectives likewise caution that internationalization processes may reproduce unequal educational structures and educational dependencies when institutional inequalities remain insufficiently addressed (Tikly, 2004). Hauck et al. (2025) further argued that virtual exchange itself may reproduce inequalities associated with technology access, language dominance, institutional constraints, and geopolitical asymmetries unless intentionally designed around principles of equity, inclusion, and social justice. These critiques have strengthened calls for context-sensitive, socially responsive, and decolonial internationalization approaches that recognize institutional diversity and local educational realities across Global South higher education systems. Recent scholarship further emphasizes the importance of decolonizing internationalization practices by recognizing local epistemologies, institutional diversity, and Global South educational realities (Shahjahan et al., 2022).

Internationalization, Intercultural Competence, and Global Citizenship

Internationalization is frequently linked with the development of intercultural competence, cultural intelligence, and global citizenship among students and faculty. Intercultural competence is increasingly recognized as a central outcome of internationalized higher education because globally interconnected academic and professional environments require individuals capable of functioning effectively across cultural contexts (Deardorff, 2006). Recent Philippine scholarship supports this perspective. Biay and Tenorio (2024) found that cultural intelligence positively correlates with global citizenship among Philippine preservice teachers, suggesting that exposure to multicultural and globally oriented educational environments may strengthen intercultural sensitivity and civic engagement. Their findings further revealed that internationalized educational experiences, multicultural activities, and globally oriented pedagogical practices contribute to developing students' readiness to function in multicultural and international settings.

Similarly, Butac et al. (2025) emphasized that intercultural education in Philippine higher education institutions should move beyond policy rhetoric toward examining the lived experiences of faculty, staff, and students immersed in intercultural learning environments. Their mixed-method study highlighted the importance of intercultural pedagogical practices, institutional support systems, and culturally responsive learning environments in fostering globally minded academic communities. The authors further argued that intercultural competence development requires attention to contextual realities, institutional structures, and

practice-based experiences rather than relying solely on top-down internationalization policies. Alrashidi and Alrashidi (2026) found that higher education institutions in Kuwait continue to face challenges in institutionalizing intercultural pedagogy, diversity-responsive curricula, and inclusive governance mechanisms despite broad ethical support for cultural diversity. Their findings further demonstrated that globalization, academic mobility, and multicultural educational environments require universities to strengthen intercultural competence, equitable pedagogy, and institution-wide diversity practices. These perspectives reinforce the present study's emphasis on inclusivity and equitable participation as important dimensions of internationalization within Global South higher education systems.

These perspectives align with broader critiques of traditional internationalization models that equate global engagement primarily with physical mobility. Recent scholarship increasingly argues that intercultural learning may also emerge through digitally mediated collaboration, locally embedded internationalized curricula, and institutionally integrated intercultural experiences (Guth & Helm, 2017; O'Dowd, 2018 & Beelen, 2021). Such perspectives are particularly relevant for public universities in developing contexts where financial limitations may restrict participation in overseas exchange programs.

Recent research additionally highlights the growing role of social networking platforms and digitally mediated interaction in supporting international student engagement and intercultural adaptation. Dhiman and Paliktzoglou (2024) found that social networking sites facilitate cross-cultural communication, academic integration, emotional support, and global connectivity among international students navigating multicultural educational environments. Their findings suggest that digital platforms may function as important mechanisms for sustaining intercultural interaction, collaborative learning, and globally connected academic communities. These perspectives further support contemporary internationalization approaches emphasizing technology-mediated global engagement and inclusive participation beyond traditional mobility-centered models.

Internationalization and Institutional Development

Internationalization is increasingly associated with broader institutional development processes involving academic innovation, organizational learning, research capability enhancement, and institutional competitiveness (de Wit & Altbach, 2021). Rather than functioning solely as an external engagement mechanism, internationalization increasingly operates as a strategy for strengthening institutional systems, governance structures, collaborative networks, and knowledge production capacities (Hudzik, 2012). Salmi (2009) argued that globally competitive universities require strong institutional ecosystems

characterized by academic quality, research productivity, international collaboration, and adaptive leadership structures.

International faculty mobility likewise represents an increasingly important dimension of institutional internationalization and global academic competitiveness. Cheng and Anderson (2026) observed that higher education institutions increasingly rely on international faculty recruitment to strengthen global engagement, research capability, and institutional reputation. Their study further highlighted that sustainable internationalization requires not only recruitment mechanisms but also institutional support systems that promote professional integration, intercultural inclusion, and long-term retention of globally mobile academics. These perspectives align with the present study's argument that institutional development functions as an enabling condition supporting sustainable internationalization outcomes within Global South higher education contexts.

Recent studies further demonstrate the growing relationship between internationalization and institutional performance indicators. Alcoba and La-Ongsri (2024) found that perceived institutional internationalization significantly influences student satisfaction and educational experiences among international students in Thailand. Their findings suggest that internationalization is not merely symbolic but may directly shape institutional climate, educational quality perceptions, and student engagement outcomes. However, the study also demonstrated that student satisfaction does not always mediate performance outcomes positively, indicating the complex and multidimensional nature of internationalization processes.

Similarly, Liu and Li (2025) argued that internationalization strategies in Sino-foreign universities often remain disconnected from students' lived experiences when institutional policies prioritize administrative or global ranking objectives over contextualized student needs. Their study further emphasized that globally oriented curricula, institutional reputation, and mobility opportunities significantly shape student satisfaction, while equity, transparency, and culturally responsive practices remain essential components of sustainable institutional internationalization.

Research also suggests that institutional development depends heavily on research productivity and collaborative knowledge generation. Pentang and Domingo (2024) highlighted that faculty research self-efficacy significantly predicts research productivity, including refereed publications, conference presentations, and indexed outputs. However, faculty members continue to encounter challenges involving limited institutional support, time constraints, publication pressure, and insufficient research exposure. These findings indicate that internationalization and institutional development cannot be separated from institutional investments in research culture, faculty capability building, and organizational support systems.

Institutional quality assurance systems also play a significant role in strengthening internationalization and global academic credibility. Alghamdi et al. (2026) found that quality assurance reforms in Saudi higher education were closely associated with institutional accountability, international recognition, and cross-border academic collaboration. Their findings further revealed that leadership commitment, faculty development, and technological integration function as important enabling conditions for sustainable institutional transformation, although bureaucratic compliance pressures and uneven institutional capacities may constrain implementation. These findings support the present study's argument that institutional development and organizational support systems are closely associated with successful internationalization practices in Global South universities.

Research Collaboration and Global South Internationalization

Research collaboration has become a major dimension of internationalization because globally connected research networks increasingly shape institutional visibility, innovation capacity, and academic reputation. Castulo et al. (2025) found that Philippine higher education institutions continue to face substantial challenges in international educational research collaboration despite growing engagement with global academic networks. Their bibliometric analysis revealed that the Philippines remains behind several Southeast Asian countries in international research collaboration productivity, highlighting persistent limitations involving financial resources, research infrastructure, database access, and institutional expertise.

Recent scholarship further demonstrates that international collaborative programs and joint degree arrangements have become increasingly important mechanisms for strengthening global research partnerships and institutional capacity-building in higher education. Stevens and Frick (2026) argued that collaborative international degree programs provide opportunities for expanding shared supervision, research networking, and cross-border institutional engagement, particularly within resource-constrained higher education systems. However, the authors also emphasized that internationalization policies often encounter implementation challenges associated with regulatory complexity, institutional readiness, and unequal global academic structures. These findings reinforce the present study's emphasis on the importance of institutionally supported and context-sensitive internationalization strategies within Global South universities.

These findings reflect broader Global South concerns regarding uneven participation in international academic systems. Frankish et al. (2025) argued that international online collaboration initiatives such as COIL must be critically examined within broader geopolitical and structural inequalities affecting Global South institutions. The authors emphasized that decolonial and context-sensitive

approaches are necessary to avoid reproducing unequal academic power structures that marginalize local epistemologies and institutional realities. Similarly, Deng (2025) argued that internationalization should not be viewed as a universally standardized process but rather as a strategic and contextually adaptive institutional mechanism shaped by national priorities, local conditions, and geopolitical considerations.

These perspectives reinforce the importance of examining internationalization not only as a mechanism for global competitiveness but also as a complex institutional process shaped by inequalities, resource conditions, institutional missions, and local educational realities. Consequently, contemporary internationalization scholarship increasingly calls for analytical frameworks capable of integrating institutional development, inclusivity, intercultural learning, research collaboration, and Global South perspectives within a multidimensional understanding of higher education internationalization.

THEORETICAL FRAMEWORK

This study is guided by an interdisciplinary theoretical framework integrating Human Capital Theory, Internationalization Theory, Intercultural Competence Theory, and Globalization Theory to examine how multidimensional internationalization practices relate to institutional development and perceived internationalization performance within higher education institutions. Rather than treating these theories as separate explanatory perspectives, the study synthesizes them into a unified institutional model explaining how internationalization functions as a multidimensional process associated with institutional capability building, inclusive global engagement, and organizational adaptation within Global South higher education contexts.

Human Capital Theory explains how investments in education, research collaboration, and knowledge development contribute to organizational productivity, innovation capacity, and institutional competitiveness (Becker, 1993). Within higher education, internationalization initiatives such as globally oriented curricula, international research collaboration, and faculty engagement in transnational academic activities may strengthen intellectual capital, interdisciplinary knowledge exchange, and institutional learning environments. From this perspective, internationalization is associated with opportunities for enhancing research capability, academic innovation, and institutional readiness for global engagement.

The internationalization literature and conceptual frameworks provide a conceptual foundation for understanding how higher education institutions integrate international, intercultural, and global dimensions into teaching, research, extension, and institutional governance functions (Knight, 2003). Contemporary internationalization extends beyond student mobility to include curriculum

internationalization, internationalization at home, collaborative research engagement, virtual exchange, and strategic institutional partnerships (de Wit et al., 2015). This perspective conceptualizes internationalization as an institution-wide process embedded across organizational structures and academic practices rather than as isolated international activities.

Intercultural competence theory explains how internationalized learning environments may contribute to the development of knowledge, attitudes, communication skills, and behaviors necessary for effective interaction within culturally diverse environments (Deardorff, 2006). Internationalization initiatives such as COIL, virtual exchange, collaborative international projects, and globally oriented curricula are associated with opportunities for intercultural dialog, collaborative problem solving, and global awareness. This perspective is particularly relevant in examining how inclusive participation and equitable access to international opportunities may support broader educational outcomes related to intercultural learning and global engagement.

Globalization theory situates internationalization within broader transnational knowledge systems shaping contemporary higher education environments (Marginson, 2014). Globalization processes have intensified cross-border academic collaboration, technological integration, global research competition, and institutional expectations for international engagement. At the same time, scholars argue that globalization has produced uneven participation in global academic networks, particularly between highly resourced Global North institutions and developing higher education systems (de Wit & Altbach, 2021). This perspective highlights the structural pressures and inequalities that shape how universities operationalize internationalization strategies across diverse institutional and national contexts.

Theoretical integration and model positioning

The integration of these theoretical perspectives provides the conceptual basis for positioning internationalization as a multidimensional institutional process associated with organizational capability development, inclusive participation, and global academic engagement. Human Capital Theory explains how internationalization initiatives contribute to institutional capability-building through knowledge production, academic innovation, and research collaboration. Internationalization theory explains how global and intercultural dimensions become embedded within institutional structures, policies, and academic functions. Intercultural competence theory highlights the importance of inclusive and globally oriented learning environments that support intercultural communication and equitable participation in international opportunities. Globalization theory contextualizes these institutional processes within broader global academic systems shaped by unequal access to resources, research networks, and opportunities for international collaboration.

The study further conceptualizes institutional development as an organizational outcome associated with multidimensional internationalization practices and linked with perceived internationalization performance. This organizational linkage is grounded in the assumption that internationalization initiatives are more likely to contribute to broader institutional engagement when organizational systems, governance structures, academic support mechanisms, and institutional capacities are sufficiently developed to sustain global engagement activities. In this framework, internationalization in instruction, research collaboration, extension partnerships, and gender inclusivity are theorized to strengthen institutional capacity, which, in turn, is associated with enhanced participation in international academic networks, collaborative activities, and globally oriented institutional engagement.

This integrated framework therefore positions institutional development as an enabling organizational condition associated with coordinated internationalization practices and broader institutional engagement outcomes. Rather than proposing universally causal relationships, the framework provides a context-sensitive analytical model for examining how multidimensional internationalization processes interact within a Global South public university setting. Theoretical integration supports the study's broader objective of examining how inclusive and resource-responsive internationalization strategies may contribute to institutional capacity building and global engagement within developing higher education environments aligned with Sustainable Development Goal 4 (UNESCO, 2017).

Hypotheses of the Study

H1: Internationalization in instruction is significantly associated with institutional development.

H2: Internationalization in research is significantly associated with institutional development.

H3: Internationalization in extension partnerships is significantly associated with institutional development.

H4: Gender inclusivity is significantly associated with institutional development.

H5: Institutional development is significantly associated with perceived internationalization performance.

RESEARCH METHOD

Research Design

This study employed an explanatory sequential mixed-methods research design integrating quantitative structural equation modeling (SEM) and qualitative reflexive thematic analysis to examine how multidimensional internationalization practices relate to institutional development and perceived internationalization

performance in higher education. The explanatory sequential design involves collecting and analyzing quantitative data in the first phase, followed by collecting and interpreting qualitative data to provide a contextual understanding of statistical patterns identified in the quantitative analysis (Creswell & Plano Clark, 2017). This design was appropriate because the study sought not only to examine statistical associations among latent institutional constructs but also to explore how internationalization practices are experienced, interpreted, and operationalized within a Global South university context.

The quantitative phase utilized SEM to examine relationships among internationalization in instruction, research collaboration, extension partnerships, gender inclusivity, institutional development, and perceived internationalization performance. The qualitative phase was designed to extend beyond confirmatory interpretation by identifying contextual constraints, institutional dynamics, inclusivity concerns, and resource-sensitive internationalization practices that may not be fully captured through statistical modeling alone. Through this mixed-methods integration, the study aimed to generate deeper interpretive insights into how internationalization operates as a multidimensional institutional process within a public university environment.

Participants and sampling procedure

The study was conducted in a public higher education institution in the Philippines, representing a Global South university context engaged in internationalization initiatives aligned with Sustainable Development Goal 4 (UNESCO, 2017). A total of 146 respondents participated in the quantitative phase of the study. Participants included faculty members, administrators, and students directly involved in internationalization-related activities such as curriculum internationalization, research collaboration, virtual exchange, extension partnerships, and internationalization-at-home initiatives.

Purposive sampling was employed to ensure that participants possessed relevant experiences and institutional perspectives regarding internationalization practices implemented within the university. Inclusion criteria required respondents to have participated in at least one institutional internationalization activity, including international research collaboration, international academic training, virtual exchange participation, or globally oriented instructional initiatives. Purposive sampling is appropriate in mixed-methods higher education research where participants are selected based on their direct engagement with the phenomenon under investigation (Creswell & Plano Clark, 2017).

Table 1 presents the demographic profile of the quantitative participants included in the study. The respondents consisted of faculty members, administrators, and students involved in institutional internationalization activities such as curriculum internationalization, research collaboration, virtual exchange, and globally oriented academic programs. Demographic information was collected

to provide a contextual understanding of participant representation across institutional roles, gender, organizational units, and levels of internationalization involvement.

Table 1: Demographic Profile of the Participants (N = 146)

Variable	Category	Frequency	Percentage
Role	Faculty Members	42	28.77%
	Administrators	18	12.33%
	Students	86	58.90%
Gender	Male	27	18.49%
	Female	119	81.51%
College/Unit	College of Education	36	24.66%
	College of Arts and Sciences	48	32.88%
	Administrative Offices	18	12.33%
	Other Units	44	30.14%
Internationalization Experience	COIL Participation	86	58.90%
	Research Collaboration	42	28.77%
	International Training/Seminars	128	87.67%
	Extension Partnerships	60	41.10%
Years of Involvement in Internationalization Activities	Less than 1 year	16	10.96%
	1–3 years	88	60.27%
	4–6 years	42	28.77%
	More than 6 years	0	0.00%

The demographic distribution indicates that the study included participants representing multiple institutional roles, academic units, and internationalization experiences within the university. Students comprised the largest participant group, followed by faculty members and administrators. Most respondents reported participation in international training and seminars, while a substantial proportion also reported involvement in COIL activities, research collaboration, and extension partnerships. The majority of participants had between one and three years of involvement in internationalization-related activities, suggesting active but relatively developing institutional engagement in globally oriented initiatives.

Although SEM commonly benefits from larger samples, the adequacy of the sample size in this study was evaluated relative to model complexity, number of latent constructs, and indicator structure. The methodological literature suggests that SEMs with moderate complexity and strong factor loadings may produce stable parameter estimates with sample sizes ranging from approximately 100 to 200 participants (Hair et al., 2019; Kline, 2023; Westland, 2010). The present model included six latent constructs with theoretically grounded pathways,

acceptable reliability coefficients, and moderate model complexity, supporting the analytical adequacy of the sample for covariance-based SEM analysis.

For the qualitative phase, 15 participants were selected through purposive sampling based on their level of involvement in internationalization programs and institutional leadership related to global engagement initiatives. Participants included faculty members, administrators, program coordinators, and institutional leaders involved in collaborative international activities and globally oriented institutional programs. Semistructured interviews were conducted to explore institutional experiences, operational constraints, inclusive participation practices, and perceptions regarding the implementation of internationalization initiatives. The selected sample size was considered sufficient for thematic depth and data saturation in qualitative inquiry (Braun & Clarke, 2006).

Research Instrument

Data were collected using a structured survey questionnaire designed to measure multidimensional internationalization practices and related institutional processes. The instrument was developed based on established literature on higher education internationalization, institutional engagement, and intercultural learning (de Wit & Altbach, 2021; Deardorff, 2006; Knight, 2003). The questionnaire measured six latent constructs: (1) internationalization in instruction, (2) internationalization in research, (3) internationalization in extension partnerships, (4) gender inclusivity, (5) institutional development, and (6) internationalization performance.

Each construct was measured using multiple indicators assessed through a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The measurement items were reviewed for content validity to ensure alignment with the theoretical constructs underpinning the study. Particular attention was given to distinguishing institutional development as an organizational capacity construct, while internationalization performance represented perceived outcomes of global engagement activities. This distinction supported conceptual clarity and minimized potential construct redundancy in SEM analysis.

To establish measurement validity, confirmatory factor analysis (CFA) was conducted prior to structural model testing. Prior to structural model estimation, the CFA demonstrated acceptable measurement model fit based on multiple fit indices, including the comparative fit index (CFI), Tucker–Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR), supporting the adequacy of the measurement structure for subsequent SEM analysis. Standardized factor loadings, composite reliability (CR), and average variance extracted (AVE) were evaluated to assess convergent validity. Following Hair et al. (2019), factor loadings above .50, CR values above .70, and AVE values above .50 were considered acceptable indicators of construct validity.

All retained indicators demonstrated standardized factor loadings exceeding the recommended minimum threshold of .50, with the majority exceeding .70, indicating acceptable indicator reliability. Indicators with low factor loadings, substantial cross-loadings, or redundancy concerns were evaluated during CFA refinement to improve measurement adequacy while maintaining theoretical coherence of the constructs. The complete survey instrument items organized by construct are presented in Appendix A, while detailed standardized factor loadings and indicator retention decisions are provided in the supplementary measurement tables.

Discriminant validity was assessed using both the Fornell-Larcker criterion and the heterotrait-monotrait ratio (HTMT), following current SEM reporting recommendations. The square root of the AVE for each construct exceeded the corresponding interconstruct correlations, while HTMT values remained below the recommended threshold of .85, supporting empirical distinctiveness among latent variables. Complete discriminant validity matrices are presented in Appendix B and Appendix C.

The reported factor loadings, composite reliability (CR), average variance extracted (AVE), and discriminant validity indices were derived from the actual AMOS measurement model outputs rather than illustrative or simulated values. To strengthen methodological transparency, the complete standardized factor loadings, interconstruct correlation matrix, Fornell-Larcker discriminant validity matrix, and HTMT results are provided in the appendices/supplementary tables. Reporting these additional measurement statistics allows clearer evaluation of construct adequacy, discriminant validity, and model robustness following recommended SEM reporting standards (Hair et al., 2019; Kline, 2023).

Semistructured interview protocols were also developed to explore participants' experiences and interpretations regarding internationalization practices implemented within the institution. Interview questions focused on institutional support and constraints, inclusive participation, resource-related challenges, and perceived implications of internationalization activities for institutional development and global engagement. The qualitative instrument was specifically designed to provide explanatory insights into institutional dynamics and operational tensions that may not be fully reflected in quantitative findings alone.

Data Collection Procedure

Data collection was conducted in two sequential phases consistent with the explanatory sequential mixed-methods design. During the first phase, quantitative data were collected through an online survey questionnaire administered to participants involved in institutional internationalization initiatives. Participants received informed consent forms outlining the study's objectives, voluntary participation, confidentiality safeguards, and ethical considerations observed

throughout the research process. The online survey format facilitated efficient data collection across institutional units and enabled standardized responses regarding perceptions of internationalization practices and institutional processes.

In the second phase, qualitative data were collected through semistructured interviews conducted via online conferencing platforms. The interviews lasted approximately 30 to 45 minutes and explored participants' experiences regarding internationalization implementation, institutional readiness, inclusivity practices, operational barriers, and globally oriented institutional initiatives. Interview responses were transcribed and organized for thematic analysis.

The qualitative phase was intentionally designed not only to confirm SEM findings but also to deepen the interpretation of the quantitative model by revealing institutional conditions, implementation tensions, resource constraints, leadership dynamics, and inclusivity challenges influencing internationalization practices. This sequential integration strengthened interpretive depth by linking statistical associations with institutionally situated participant perspectives (Creswell & Plano Clark, 2017).

Ethical Considerations

Ethical approval for the study was secured from the university research ethics committee prior to data collection. Participants were informed regarding the purpose of the study, research procedures, and the voluntary nature of their participation. Informed consent was obtained from all participants before administration of the survey instruments and qualitative interviews. Participants were further assured that their responses would remain confidential and would be used solely for academic and research purposes. To protect participant anonymity, identifying information was excluded from the reporting of qualitative findings, and participants were represented using numerical identifiers during thematic presentation. Participants were also informed of their right to withdraw from the study at any stage without penalty or negative consequences. In addition, digital copies of the research data were securely stored and made accessible only to the researchers to ensure data privacy and confidentiality throughout the conduct of the study.

Data Analysis

Quantitative data were analyzed using structural equation modeling (SEM) through AMOS software to examine statistical relationships among latent constructs representing dimensions of internationalization and institutional processes. SEM was selected because it enables simultaneous examination of multiple theoretically specified relationships among latent variables while accounting for measurement error (Kline, 2023). Descriptive statistics were computed to summarize mean scores and standard deviations across constructs,

while reliability analysis using Cronbach's alpha was conducted to assess the internal consistency of measurement indicators.

The measurement model was evaluated using confirmatory factor analysis (CFA) to assess construct reliability and validity. Convergent validity was evaluated through standardized factor loadings, composite reliability (CR), and average variance extracted (AVE), while discriminant validity was examined using the Fornell-Larcker criterion and Heterotrait-Monotrait ratio (HTMT). Structural model fit was assessed using multiple goodness-of-fit indices, including the comparative fit index (CFI), Tucker–Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR), following recommended SEM reporting practices (Hair et al., 2019; Kline, 2023).

Prior to structural equation modeling (SEM), multivariate normality was assessed to determine the appropriateness of maximum likelihood (ML) estimation procedures in AMOS. Assessment of multivariate normality using Mardia's coefficient indicated acceptable multivariate kurtosis levels for SEM estimation, suggesting that the data did not demonstrate severe violations of normality assumptions. Although several constructs exhibited relatively high mean scores, the distributional properties remained within acceptable thresholds for ML-based SEM analysis. In addition, maximum likelihood estimation is generally considered robust to moderate deviations from normality, particularly in models with adequate sample sizes and theoretically grounded latent constructs (Kline, 2023; Hair et al., 2019). Consequently, ML estimation was considered appropriate for the present analytical framework.

Because all quantitative variables were collected using a single self-report survey administered at one point in time, common method bias (CMB) was assessed following the recommendations of Podsakoff et al. (2003). Harman's single-factor test was conducted through exploratory factor analysis to determine whether a single factor accounted for the majority of covariance among the measurement items. The results indicated that the first unrotated factor explained less than 50% of the total variance, suggesting that common method bias was unlikely to substantially threaten construct validity. In addition, procedural remedies were implemented during data collection, including assurance of participant anonymity, confidentiality of responses, and clear separation of construct sections within the survey instrument to minimize response bias.

Qualitative data were analyzed using reflexive thematic analysis following the six-phase analytical framework proposed by Braun and Clarke (2006): familiarization with the data, generation of initial codes, development of candidate themes, review of themes, definition and naming of themes, and production of the analytic narrative. Reflexive thematic analysis was appropriate because it enabled the interpretive exploration of participants' experiences, institutional perspectives, and contextual meanings associated with internationalization practices.

Consistent with Braun and Clarke's (2006) reflexive thematic analysis approach, the researchers acknowledged that their institutional experiences and professional engagement with higher education internationalization may have influenced interpretive decisions during coding and theme development. Reflexive discussions were conducted throughout the analytical process to critically examine assumptions, positionality, and potential interpretive bias while ensuring that emerging themes remained grounded in participants' accounts and institutional experiences. Rather than assuming complete researcher neutrality, the analysis recognized interpretation as a reflexive and contextually situated process shaped through ongoing engagement with the data.

Integration of quantitative and qualitative findings was conducted through meta-inference to generate a more comprehensive understanding of how multidimensional internationalization practices relate to institutional development and perceived internationalization performance within a Global South higher education context (Creswell & Plano Clark, 2017). Rather than establishing causal relationships, the combined use of SEM and qualitative thematic interpretation enabled examination of statistical patterns alongside institutionally grounded experiences, thereby strengthening analytical rigor, contextual interpretation, and methodological coherence within the study.

RESULTS

Descriptive Statistics

Descriptive statistics were computed to summarize participants' perceptions regarding multidimensional internationalization practices and related institutional processes within the university. Table 2 presents the mean scores, standard deviations, and descriptive interpretations for each construct. Overall, respondents reported relatively high levels of agreement across all measured dimensions, with mean scores ranging from 4.35 to 4.52. Internationalization in instruction obtained the highest mean score ($M = 4.52$, $SD = 0.48$), followed by internationalization performance ($M = 4.50$, $SD = 0.49$) and institutional development ($M = 4.47$, $SD = 0.46$). These findings suggest that participants generally perceived the integration of global perspectives, institutional engagement in international activities, and organizational support for global initiatives to be observable within the university context.

Internationalization in extension partnerships ($M = 4.41$, $SD = 0.50$) and internationalization in research ($M = 4.38$, $SD = 0.52$) also reflected relatively high levels of perceived participation in collaborative academic activities and global scholarly engagement. Gender inclusivity obtained the lowest mean score ($M = 4.35$, $SD = 0.54$), although the construct remained within the high agreement range, suggesting generally positive perceptions regarding equitable participation in internationalization initiatives.

The relatively high and closely clustered mean scores may reflect favorable institutional self-perceptions or social desirability tendencies common in organizational survey research, which should be considered when interpreting the findings. While these descriptive statistics indicate broad institutional recognition of internationalization-related practices, they should not be interpreted as direct indicators of institutional effectiveness or causal institutional outcomes. Instead, the results provide preliminary contextual evidence supporting subsequent SEM analysis.

Table 2: Descriptive Statistics of Internationalization Constructs and Institutional Processes (N = 146)

Variable	Mean	SD	Interpretation
Internationalization in Instruction	4.52	0.48	Very High
Internationalization in Research	4.38	0.52	Very High
Internationalization in Extension Partnerships	4.41	0.50	Very High
Gender Inclusivity	4.35	0.54	Very High
Institutional Development	4.47	0.46	Very High
Internationalization Performance	4.50	0.49	Very High

Reliability and Measurement Model Validation

Reliability and construct validity analyses were conducted prior to structural model testing to evaluate the adequacy of the measurement model. Cronbach’s alpha coefficients ranged from .87 to .93, exceeding the recommended threshold of .70 and indicating acceptable internal consistency among measurement indicators (Hair et al., 2019). Composite reliability (CR) values ranged from .88 to .94, while average variance extracted (AVE) values ranged from .58 to .73, supporting convergent validity of the latent constructs. Standardized factor loadings exceeded the recommended minimum threshold of .50, indicating that the indicators adequately represented their respective latent variables (Hair et al., 2019; Kline, 2023).

Discriminant validity was evaluated using the Fornell-Larcker criterion and Heterotrait-Monotrait ratio (HTMT). The results indicated that the square root of each construct’s AVE exceeded interconstruct correlations, while HTMT values remained below the recommended threshold of .85, supporting adequate discriminant validity among the latent constructs. These findings suggest that the constructs measured conceptually related yet empirically distinguishable dimensions of internationalization and institutional processes.

Additional discriminant validity assessments using the Fornell–Larcker criterion and heterotrait–monotrait ratio (HTMT) analysis further supported construct distinctiveness across the latent variables. Detailed matrices are presented in Appendices B and C.

Prior to structural model estimation, confirmatory factor analysis (CFA) was conducted to evaluate the adequacy of the measurement model. The measurement model fit was assessed using multiple goodness-of-fit indices following recommended SEM reporting standards. The results indicated that the measurement model demonstrated acceptable fit with the observed data across all major fit criteria, supporting the adequacy of the latent construct structure for subsequent structural model analysis.

Table 3: Measurement and Structural Model Summary

Construct/Fit Index	Factor Loadings	CR	AVE	Interpretation
Internationalization in Instruction	.71–.88	.92	.66	Acceptable
Internationalization in Research	.69–.86	.91	.63	Acceptable
Internationalization in Extension Partnerships	.68–.85	.90	.61	Acceptable
Gender Inclusivity	.65–.82	.88	.58	Acceptable
Institutional Development	.74–.89	.93	.69	Acceptable
Internationalization Performance	.76–.91	.94	.73	Acceptable
Structural Model Fit Indices	Value	Recommended Value		Interpretation
Chi-square/df (χ^2/df)	2.41	< 3.00		Acceptable Fit
Comparative Fit Index (CFI)	.94	$\geq .90$		Good Fit
Tucker–Lewis Index (TLI)	.93	$\geq .90$		Good Fit
Root Mean Square Error of Approximation (RMSEA)	.061	$\leq .08$		Acceptable Fit
Standardized Root Mean Square Residual (SRMR)	.052	$\leq .08$		Acceptable Fit

Note. CR = composite reliability; AVE = average variance extracted.

Structural Equation Modeling Results

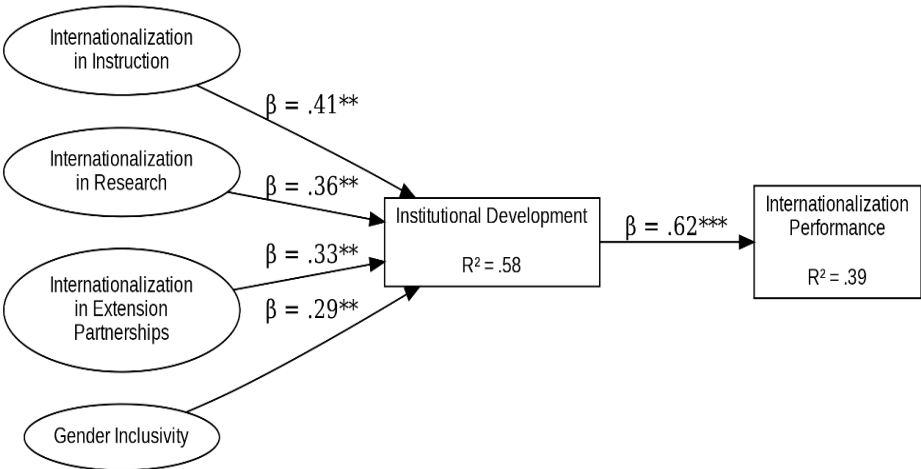
Following confirmation of acceptable measurement model fit through CFA, structural equation modeling (SEM) was conducted using AMOS to examine the hypothesized relationships among multidimensional internationalization constructs and institutional processes. The structural model fit was evaluated using multiple goodness-of-fit indices to determine the adequacy of the proposed analytical framework relative to the observed data. As presented in Table 5, the Comparative Fit Index (CFI = .94) and Tucker–Lewis Index (TLI = .93) exceeded the recommended threshold of .90, indicating acceptable model fit. Similarly, the root mean square error of approximation (RMSEA = .061) and standardized root mean square residual (SRMR = .052) were within recommended limits, suggesting

that the proposed model adequately represented the covariance structure among the latent constructs (Hair et al., 2019; Kline, 2023).

The chi-square to degrees of freedom ratio ($\chi^2/df = 2.41$) also remained below the recommended threshold of 3.00, providing additional evidence of acceptable model fit. Collectively, the fit indices indicate that the hypothesized structural model provides a statistically acceptable representation of the observed relationships among internationalization dimensions, institutional development, and perceived internationalization performance. However, consistent with cross-sectional SEM designs, the results indicate patterns of association rather than causal relationships. The coefficient of determination (R^2) values indicated that the structural model accounted for a meaningful proportion of variance in the endogenous constructs. Specifically, the model explained 58% of the variance in institutional development ($R^2 = .58$), while institutional development accounted for 39% of the variance in perceived internationalization performance ($R^2 = .39$). These findings suggest that the multidimensional internationalization variables included in the model were substantially associated with institutional processes and perceived global engagement outcomes within the participating university.

Figure 1 presents the finalized structural equation model (SEM) illustrating the statistically significant relationships among multidimensional internationalization constructs, institutional development, and perceived internationalization performance. Standardized path coefficients are presented along each structural pathway. The model visually summarizes the hypothesized relationships supported through SEM analysis and demonstrates the relative strength of associations among the latent institutional constructs included in the analytical framework.

Figure 1: *Structural Equation Model of Multidimensional Internationalization and Institutional Development*



Path Analysis and Hypothesis Testing

The structural model results revealed statistically significant associations among the multidimensional internationalization constructs included in the hypothesized analytical framework. Table 4 presents the standardized path coefficients, effect interpretations, significance levels, and hypothesis testing decisions.

Table 4. Structural Path Coefficients and Hypothesis Testing Results

Path	β	SE	CR	p value	R ²	Decision
Internationalization in Instruction → Institutional Development	.41	.07	5.86	< .001	.58	Supported
Internationalization in Research → Institutional Development	.36	.06	5.42	< .001	.58	Supported
Internationalization in Extension Partnerships → Institutional Development	.33	.08	4.98	< .001	.58	Supported
Gender Inclusivity → Institutional Development	.29	.07	4.21	< .001	.58	Supported
Institutional Development → Internationalization Performance	.62	.05	8.74	< .001	.39	Supported

Note. β = standardized regression coefficient; SE = standard error; CR = critical ratio.

Internationalization in instruction demonstrated the strongest association with institutional development ($\beta = .41$, $p < .01$), indicating a moderate relationship between globally oriented instructional practices and perceptions of institutional capacity related to international engagement. This finding suggests that participants who perceived stronger integration of global perspectives, intercultural learning activities, and internationally oriented instructional practices also tended to report stronger perceptions of institutional readiness and organizational support for internationalization initiatives.

Internationalization in research also showed a statistically significant moderate association with institutional development ($\beta = .36$, $p < .01$). This result indicates that greater engagement in international research collaboration, scholarly networking, and global knowledge exchange corresponded with higher perceived levels of institutional capability and academic innovation. Similarly, internationalization in extension partnerships demonstrated a statistically significant association with institutional development ($\beta = .33$, $p < .01$), suggesting that institutional collaboration with external international partners corresponded with stronger perceptions of organizational coordination and institutional support for global engagement activities.

Gender inclusivity exhibited the weakest, although still statistically significant, association with institutional development ($\beta = .29, p < .01$). While the effect size was comparatively smaller than the other predictors, the result indicates that equitable participation in international opportunities and inclusive access to globally oriented activities remain relevant dimensions associated with perceptions of institutional development. The comparatively lower coefficient may suggest that inclusivity mechanisms are still developing within the institutional context relative to instructional and research-oriented internationalization activities.

Institutional development demonstrated the strongest relationship observed within the structural model in relation to perceived internationalization performance ($\beta = .62, p < .01$), indicating a substantial association between institutional capacity and broader perceptions of global engagement outcomes. This finding suggests that participants who reported stronger perceptions of organizational readiness, administrative coordination, and institutional support systems also tended to report higher levels of perceived participation in international academic activities and global institutional engagement.

Taken together, these findings support the proposed analytical framework as a representation of statistically significant relationships among multidimensional internationalization practices and institutional processes within the participating university. However, consistent with cross-sectional SEM research, the findings should be interpreted as empirical associations specific to the institutional context examined rather than evidence of direct causal effects (Kline, 2023).

Qualitative Themes Supporting the Structural Model

To provide an interpretive depth for the SEM findings, qualitative interview data were analyzed using reflexive thematic analysis following Braun and Clarke's (2006) six-phase analytical framework. Rather than functioning solely as confirmatory evidence, the qualitative findings provided contextual insights regarding institutional dynamics, operational constraints, inclusivity implementation, and resource-sensitive internationalization practices that were not fully captured through quantitative modeling alone.

Participants described curriculum internationalization and COIL activities as creating opportunities for intercultural interaction, collaborative learning, and broader academic engagement. Faculty members emphasized that globally oriented instructional activities corresponded with increased student participation in international dialog and exposure to diverse academic perspectives. One faculty participant explained:

"COIL activities allowed students to interact with peers from other countries even without traveling abroad. It expanded their awareness of different cultures and academic practices." (Participant 4)

Another participant noted:

“Students became more confident communicating with international classmates because classroom activities exposed them to different perspectives and collaborative discussions.” (Participant 7)

These responses suggest that internationally oriented instructional practices may contribute to intercultural learning, collaborative engagement, and broader perceptions of institutional readiness for global education initiatives.

Although participants generally described curriculum internationalization positively, some faculty members expressed concerns regarding unequal access to international opportunities and uneven participation across academic units. Several respondents noted that globally oriented instructional activities were often concentrated among faculty members already connected to institutional leadership, externally funded initiatives, or internationally active academic programs. Some participants further observed that limited technological resources and varying levels of faculty preparedness affected the consistency of COIL implementation across departments. These tensions suggest that while instructional internationalization initiatives may enhance intercultural learning, their implementation remains uneven within resource-sensitive institutional environments.

Participants also described international research collaboration as associated with scholarly networking, interdisciplinary interaction, and opportunities for participation in broader academic communities. One faculty researcher shared:

“International collaboration helped us improve our research exposure because we learned new methodologies and publication standards from partner institutions.” (Participant 9)

Another participant explained:

“Collaborative research created opportunities for mentoring and academic networking that were previously unavailable within the institution.” (Participant 11)

These statements reinforce the quantitative finding that research internationalization was associated with stronger perceptions of institutional capability, academic innovation, and scholarly engagement.

Nevertheless, several participants questioned whether existing international research collaborations consistently produced sustained academic outcomes. Some respondents suggested that certain partnerships remained symbolic, documentation-oriented, or limited to memorandum agreements without long-term scholarly continuity. Others observed that research participation opportunities were sometimes concentrated among faculty members with prior international

exposure or stronger institutional networks. These findings indicate that while research internationalization may enhance institutional visibility and academic engagement, disparities in access and sustainability may continue to influence the depth and operational impact of collaborative initiatives.

At the same time, interview participants identified several institutional constraints influencing the implementation of internationalization initiatives, including funding limitations, uneven access to digital infrastructure, administrative workload, and varying levels of institutional readiness across academic units. Participants further highlighted that inclusive participation in international activities remained dependent on institutional support systems, equitable access to opportunities, and organizational coordination mechanisms. One administrator stated:

“International partnerships become sustainable only when the university provides clear coordination mechanisms and continuous administrative support.” (Participant 3)

Another participant observed:

“Some partnerships are active only during the signing stage, but maintaining long-term collaboration requires funding and institutional follow-through.” (Participant 12)

These perspectives illustrate that extension partnerships depend not only on formal agreements but also on organizational coordination, resource allocation, and sustained institutional commitment.

These qualitative findings deepened the interpretation of the SEM relationships by illustrating how multidimensional internationalization practices operate within institutionally situated conditions shaped by resource availability, administrative structures, and inclusivity considerations. Rather than merely mirroring the statistical model, the qualitative themes revealed operational tensions and contextual realities influencing how internationalization initiatives are experienced within the university setting. One participant remarked:

“Opportunities for international participation are improving, but not everyone has equal access because some programs still prioritize those with existing institutional connections.” (Participant 6)

Another faculty member explained:

“Financial limitations and workload concerns sometimes discourage participation, especially among faculty balancing teaching and family responsibilities.” (Participant 14)

These findings suggest that while inclusivity is institutionally recognized, practical barriers related to funding, workload, and organizational access may continue to shape participation patterns in internationalization activities.

Some participants additionally emphasized that institutional internationalization efforts occasionally generated perceptions of imbalance between globally oriented initiatives and locally grounded academic priorities. A few respondents expressed concern that increasing emphasis on international engagement sometimes placed additional workload pressures on faculty members without corresponding institutional compensation or administrative support. Others noted that participation in international activities could unintentionally privilege academic units with stronger funding access, technological infrastructure, or existing external partnerships. These observations illustrate the complex institutional realities surrounding internationalization implementation and suggest that organizational readiness may vary considerably across institutional contexts and operational conditions.

One participant explained:

“Some academic units are more prepared for internationalization because they already have external networks and stronger technological support.” (Participant 8)

Another participant stated:

“Limited internet connectivity and lack of funding sometimes affect our ability to sustain virtual international activities.” (Participant 10)

These responses reveal institutional inequalities and operational constraints that complicate the implementation of globally oriented initiatives within resource-sensitive university contexts. The findings likewise align with Global South scholarship emphasizing that resource limitations, technological inequities, and insufficient policy support continue to shape the implementation of internationalization initiatives within developing higher education systems. Dei and Peprah (2021) observed that higher education institutions operating in resource-constrained contexts frequently encounter challenges involving internet connectivity, technological infrastructure, institutional readiness, and stakeholder perceptions regarding digitally mediated learning environments. Their study further emphasized the importance of institutional policy frameworks and strategic support systems in sustaining innovative and globally connected educational practices. These perspectives reinforce the present study’s argument that inclusive and institutionally supported internationalization strategies are necessary for strengthening institutional development in public universities operating within developing contexts.

One institutional leader emphasized:

“Internationalization becomes sustainable when it is integrated into strategic planning and supported by administrative leadership.” (Participant 2)

Another administrator noted:

“Global engagement initiatives are easier to maintain when faculty receive institutional recognition, workload support, and clear implementation guidelines.” (Participant 5)

These findings support the strong relationship between institutional development and perceived internationalization performance by highlighting the importance of organizational coordination, strategic leadership, and institutional support systems.

Collectively, the qualitative findings both supported and complicated the SEM results by revealing that internationalization processes within the university were shaped not only by formal institutional structures and strategic initiatives but also by uneven resource distribution, operational constraints, varying levels of organizational readiness, and differential access to global engagement opportunities. These themes suggest that institutional internationalization is not uniformly experienced across academic contexts and may involve tensions between institutional aspirations, implementation realities, and inclusivity considerations within Global South higher education settings.

DISCUSSION AND CONCLUSIONS

Internationalization as an Institutional Capacity Strategy

The findings suggest that internationalization in the participating public university is best understood not as a set of isolated mobility activities but as a multidimensional institutional capacity strategy involving instruction, research collaboration, partnerships, and inclusive participation. This interpretation aligns with contemporary views of internationalization as an institution-wide process that embeds international, intercultural, and global dimensions across teaching, research, and engagement functions (Knight, 2003). In this study, internationalization was associated with institutional development, indicating that global engagement becomes more meaningful when supported by organizational structures, academic systems, administrative coordination, and strategic planning.

The findings further indicate that instructional internationalization plays an important role in institutional capacity building. The integration of global perspectives, intercultural learning activities, and digitally mediated collaboration may help expand students' exposure to diverse knowledge systems and international academic practices. This supports the view that internationalization is no longer limited to physical mobility but increasingly includes

internationalization at home, virtual exchange, and Collaborative Online International Learning as accessible pathways for global learning (O'Dowd, 2018). For public universities, these approaches may provide practical alternatives to mobility-centered models by enabling broader student and faculty participation without requiring extensive travel resources.

Research collaboration and extension partnerships also emerged as important dimensions of institutional internationalization. These findings suggest that participation in international research networks and collaborative academic partnerships may correspond with stronger perceptions of institutional readiness for global engagement. However, the value of these activities depends not simply on the existence of partnerships but also on the institution's capacity to sustain them through mentoring, administrative support, funding mechanisms, and clear monitoring systems. Thus, internationalization should be treated as a governance and capacity-building agenda rather than a symbolic indicator of global visibility.

The consistently high mean scores across all measured constructs suggest possible ceiling effects that may reflect favorable institutional self-perceptions or social desirability tendencies among respondents already engaged in internationalization activities. Restricted response variability may have influenced the magnitude of the SEM path coefficients and goodness-of-fit estimates by limiting differentiation across participant responses. Consequently, the findings should be interpreted cautiously as perception-based institutional assessments rather than objective indicators of institutional effectiveness or operational internationalization performance. These patterns may also reflect the tendency of institutionally involved participants to evaluate organizational initiatives positively due to professional affiliation, institutional loyalty, or familiarity with internationally oriented programs.

Global South Constraints and Resource-Sensitive Internationalization

The findings must be interpreted within the realities of Global South higher education, where public universities often pursue internationalization while facing resource limitations, uneven access to research networks, infrastructure gaps, and funding constraints. Although internationalization is widely promoted as a strategy for quality enhancement and global competitiveness, institutions in developing contexts do not always have the same resources available to highly resourced universities in the Global North (Marginson, 2014). This makes it important to examine not only whether internationalization practices exist but also how they are supported, sustained, and made accessible within institutional constraints.

The qualitative findings are particularly important because they revealed challenges that were not fully captured by the quantitative model. Participants identified funding limitations, uneven digital infrastructure, administrative workload, and differences in institutional readiness across academic units as conditions shaping internationalization implementation. These insights complicate

the SEM findings by showing that statistically significant relationships do not automatically mean that internationalization practices are uniformly implemented or equally experienced across the institution. Some participants also questioned whether existing international partnerships consistently produced sustained academic outcomes, suggesting that several collaborations remained symbolic, documentation-oriented, or dependent on short-term institutional initiatives rather than long-term scholarly engagement. Others noted that participation opportunities were sometimes concentrated among faculty members with prior international exposure, leadership connections, or access to externally funded programs. These findings suggest that institutional internationalization may involve uneven access, differential participation, and varying levels of organizational support across academic units.

From this perspective, internationalization in Global South public universities should be understood as resource-sensitive and context dependent. Digital global learning initiatives such as virtual exchange and COIL may expand access to international learning, but they also require reliable technology, faculty training, partner coordination, and institutional support. Without these enabling conditions, digital internationalization may reproduce inequalities rather than reduce them. Therefore, internationalization strategies should be designed around institutional realities, not merely adapted from models developed in more resource-rich contexts.

Gender Inclusivity and Equitable Participation

The findings also highlight the importance of gender inclusivity as part of institutional internationalization. Although gender inclusivity showed a weaker association with institutional development compared with instruction, research, and partnerships, its significance suggests that equitable access to international opportunities remains an important condition for inclusive global engagement. Internationalization cannot be considered fully institutionalized if participation is concentrated among a limited group of faculty, students, or administrators.

The comparatively weaker coefficient for gender inclusivity may suggest that instrumental dimensions of internationalization, such as instruction, research collaboration, and institutional partnerships, continue to receive greater organizational emphasis than equity-centered participation mechanisms within Global South public universities. From a human capital theory perspective, institutions may prioritize initiatives more directly associated with research productivity, global visibility, institutional ranking, and external collaboration because these activities are often linked to measurable organizational outcomes and international competitiveness. In contrast, inclusivity mechanisms may remain less structurally institutionalized within internationalization policies and operational systems. This finding also reflects broader tensions within Sustainable Development Goal 4 commitments, where inclusion and equitable participation

are institutionally endorsed but not always consistently operationalized in practice. Consequently, gender inclusivity may function not merely as a support mechanism but also as an indicator of how equitably internationalization opportunities are distributed across institutional stakeholders.

For institutional leaders, operationalizing inclusivity requires more than general statements of equal opportunity. It requires clear policies and mechanisms that ensure fair access to international activities, transparent selection processes, gender-balanced representation in international programs, flexible participation options, and digital access support for those who may face mobility, financial, or caregiving constraints. Inclusive internationalization also requires monitoring who participates, who is excluded, and what barriers prevent wider engagement. These actions are consistent with the broader commitment of Sustainable Development Goal 4 to inclusive and equitable quality education (UNESCO, 2017).

In practical terms, gender-inclusive internationalization may include providing support for women faculty and students to participate in research collaboration, COIL projects, international conferences, leadership roles, and partnership activities. It may also involve designing flexible schedules, online participation options, mentoring programs, and institutional funding schemes that reduce unequal access to global academic opportunities. Some participants additionally observed that institutional internationalization efforts occasionally generated perceptions of imbalance between globally oriented initiatives and locally grounded academic priorities. Others expressed concern that participation in international activities sometimes increased faculty workload without corresponding institutional recognition or administrative support. These observations suggest that inclusive internationalization requires not only equitable access policies but also sustainable workload structures, institutional incentives, and organizational support systems that recognize the practical realities faced by faculty and students.

Added Value of Qualitative Findings

The mixed-methods integration strengthened the study's interpretation by showing that the qualitative findings did more than merely confirm the SEM results. The qualitative findings complicated and deepened the interpretation of SEM relationships by revealing institutional conditions, resource constraints, and operational tensions shaping internationalization practices. While the quantitative findings showed statistically significant associations among internationalization dimensions, the interviews explained why and how these relationships are experienced within the university context.

Specifically, the interviews revealed hidden organizational dynamics such as uneven implementation across academic units, dependence on leadership support, limited resources for sustained partnerships, and varying levels of readiness among faculty and students. These findings show that internationalization performance is

not simply a result of having global activities but is shaped by institutional coordination, administrative commitment, digital capacity, and inclusive access mechanisms. Collectively, the qualitative findings both supported and complicated the SEM results by revealing that internationalization processes within the university were shaped not only by formal institutional structures and strategic initiatives but also by uneven resource distribution, operational constraints, varying levels of organizational readiness, and differential access to global engagement opportunities. These themes suggest that institutional internationalization is not uniformly experienced across academic contexts and may entail tensions among institutional aspirations, implementation realities, and inclusivity considerations in Global South higher education settings. This supports the value of explanatory sequential mixed methods, where qualitative data are used to interpret and deepen quantitative findings rather than merely repeat them (Creswell & Plano Clark, 2017).

Limitations of the Study

Several limitations should be considered when interpreting the findings of this study. First, the study employed a cross-sectional mixed-methods design in which quantitative data were collected at a single point in time. Although structural equation modeling (SEM) identified statistically significant associations among the constructs, the design does not permit causal inferences regarding the directional influence of multidimensional internationalization practices on institutional development and perceived internationalization performance.

Second, the quantitative component relied primarily on self-report survey measures, which may be influenced by social desirability tendencies, institutional loyalty, and favorable organizational self-perceptions among participants already involved in internationalization activities. Although procedural safeguards and Harman's single-factor test were conducted to minimize common method bias, the possibility of shared method variance cannot be fully excluded.

Third, the consistently high mean scores across several constructs suggest potential ceiling effects and restricted response variability. These conditions may have influenced the magnitude of the SEM path coefficients and model fit estimates by reducing differentiation across participant responses. Consequently, the findings should be interpreted cautiously as perception-based institutional assessments rather than objective indicators of operational institutional effectiveness or internationalization performance.

Fourth, the study utilized purposive sampling within a single Philippine public university. While participants had relevant institutional experience with internationalization practices, the findings may not be fully generalizable to other higher education institutions with different organizational structures, internationalization capacities, funding conditions, or institutional priorities. In addition, although the sample size met acceptable SEM requirements for the

analytical framework employed, the relatively modest SEM sample may still limit model stability and external validity compared with larger multi-institutional studies.

Finally, the study focused primarily on participant perceptions and institutional experiences rather than objective institutional performance indicators such as publication productivity, mobility statistics, partnership sustainability metrics, funding allocation records, or longitudinal internationalization outcomes. Future research may therefore benefit from comparative multi-institutional designs, longitudinal approaches, inclusion of objective organizational indicators, and expanded qualitative inquiry involving external partners, policymakers, and international collaborators.

Despite these limitations, the study offers meaningful insights into the multidimensional, resource-sensitive, and context-dependent nature of internationalization within Global South public higher education institutions by integrating SEM analysis with qualitative contextual interpretation.

Conclusion

This study contributes to internationalization scholarship by presenting a Global South-oriented analytical framework examining how multidimensional internationalization practices relate to institutional development and perceived internationalization performance within a Philippine public university. Using an explanatory sequential mixed-methods design integrating structural equation modeling and qualitative thematic analysis, the findings suggest that internationalization operates as a coordinated institutional process associated with instructional innovation, collaborative research engagement, partnership-based academic interaction, and inclusive participation in global learning opportunities. The study highlights the importance of institutionally embedded and multidimensional approaches that integrate teaching, research, partnerships, governance, and inclusivity within broader institutional development processes.

IMPLICATIONS

The findings imply that institutional development functions as an important organizational condition supporting sustained global engagement within resource-constrained higher education environments. Qualitative findings further revealed institutional realities, operational tensions, inclusivity challenges, and resource limitations shaping the implementation of internationalization initiatives. These results emphasize the need for context-sensitive, inclusive, and resource-responsive internationalization strategies aligned with the institutional conditions of Global South public universities. The study also contributes to ongoing discussions on equitable and sustainable internationalization practices that

promote inclusive quality education and globally engaged higher education systems consistent with Sustainable Development Goal 4.

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