

Internationalization Through Innovation Performance: Basis for Framework Development for a Higher Education Institution in Laguna

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Abstract— This study examined the perceived levels of internationalization efforts and innovation performance at San Pablo Colleges (SPC), a private higher education institution in Laguna, Philippines, with the objective of validating an Internationalization-Innovation Model and developing a Blueprint as a strategic guide for HEIs. Employing a mixed-methods developmental research design, the study involved 108 participants—50 administrators and staff and 58 faculty members—via total enumeration sampling. Quantitative data were gathered via a validated survey instrument (Cronbach's alpha = 0.972) and analyzed using descriptive statistics and Pearson correlation. Qualitative data were obtained through semi-structured interviews with six purposively selected internationalization experts, analyzed using thematic analysis. Findings revealed that SPC demonstrated a Ready level of internationalization readiness ($M = 3.18$) with a High Extent of Understanding ($M = 3.21$). Innovation performance was at a Moderate Level overall ($M = 3.10$), with Teaching and Learning Innovation highest ($M = 3.22$), followed by Technology and Governance Innovation ($M = 3.06$), and Social-Ecological Innovation ($M = 3.02$). Pearson correlation confirmed a strong, significant positive relationship between innovation performance and both internationalization readiness ($r = .758, p < .01$) and extent of understanding ($r = .748, p < .01$), leading to rejection of the null hypothesis. Qualitative validation yielded six themes supporting the Internationalization-Innovation Wheel Model, while five thematic pillars grounded the Blueprint: values-oriented governance, globally aligned curriculum, accessible mobility and exchange, strategic collaboration and research, and institutional support and innovation. The proposed Wheel Model and Blueprint were rated as Very Acceptable by validators ($M = 3.92$), affirming their strategic relevance, operational coherence, and applicability for HEIs pursuing innovation-driven internationalization.

Keywords— internationalization, innovation performance, higher education, framework development, blueprint, San Pablo Colleges.

I. INTRODUCTION

The evolving demands of globalization have compelled higher education institutions (HEIs) to rethink their roles, strategies, and contributions within an increasingly interconnected world. The internationalization of higher education has become a defining institutional and national policy trend, requiring HEIs to incorporate international and intercultural elements into their missions and programs (Mai, 2024). Educational innovation is equally central: Vidicki et al. (2023) emphasized that innovation in teaching, governance, and collaboration has



become vital in the pursuit of academic excellence. These imperatives align with the United Nations Sustainable Development Goals, particularly SDG 4 (Quality Education) and SDG 9 (Industry, Innovation, and Infrastructure).

Despite these advances, many HEIs demonstrate limited readiness for internationalization. Queroda (2020) highlighted that weak research collaboration, partnerships, and policies can hinder effective global engagement. At San Pablo Colleges (SPC), Lunar and Eala (2023) noted that although the institution had introduced educational innovation initiatives—including curriculum enhancement, digital transformation, and stakeholder collaboration—these efforts were concentrated in specific areas and required more systematic expansion to fully support internationalization goals.

This study examined the perceived levels of internationalization efforts and innovation performance at SPC, explored their relationship, validated an Internationalization-Innovation Model using expert insights, and developed a Blueprint as a strategic operational guide for HEIs in Laguna and comparable institutions. The researcher's direct involvement as a department head at SPC provided firsthand insight into institutional practices, challenges, and decision-making, reinforcing the study's contextual relevance.

II. REVIEW OF RELATED LITERATURE

A. Internationalization in Higher Education

Internationalization in HEIs has evolved from a narrow focus on student mobility and revenue to a comprehensive process that integrates global, intercultural, and inclusive perspectives across the curriculum, governance, pedagogy, and institutional policy (de Wit and Altbach, 2021; Komotar and Toprak-Yildiz, 2022). However, institutional readiness remains uneven, with persistent challenges in policy coherence, digital infrastructure, faculty engagement, and shared understanding of internationalization goals (Queroda, 2020; Moshtari and Safarpour, 2024).

Contemporary frameworks advocate inclusive strategies such as internationalization at home, curriculum integration, and virtual exchanges—particularly relevant in post-pandemic contexts where access limitations have reshaped international engagement (Green, 2021; Buckner et al., 2022). Faculty development and leadership support are identified as critical enablers of sustainable internationalization (Hermogenes, Cubcuban, and Escarlos, 2025).

B. Innovation Performance in HEIs

Vidicki et al. (2023) identified five key innovation performance parameters for HEIs: curriculum innovation, process innovation, organizational innovation, collaboration and linkages with external stakeholders, and research innovation. These dimensions were contextualized for San Pablo Colleges through the ORI Model (Optimization, Reinvention, Improvement) developed by Lunar and Eala (2023), which classifies innovations across three strategic domains - Teaching and Learning Innovation, Social-Ecological Innovation, and Technology and Governance Innovation - along two axes: internal vs. external focus, and problem-driven vs. opportunity-driven orientation.

Supporting literature affirms the need for HEIs to align programs with labor market demands (Pocol et al., 2022), strengthen research collaboration (Talaat and Gamel, 2023), and enhance governance structures and digital systems for operational effectiveness (Dogan and Arslan, 2025; Ramisio et al., 2019).

C. Theoretical Foundations

This study is grounded in three complementary frameworks. The CIGE Model for Comprehensive Internationalization (ACE, 2012; 2023) outlines six interrelated pillars – institutional commitment, leadership and structure, curriculum and co-curriculum, faculty and staff support, mobility, and partnerships - guided by the critical lenses of diversity, equity, and inclusion; agility and transformation; and data-informed decision-making. The Uppsala Internationalization Process Model (Johanson and Vahlne, 1977; Liesch and Welch, 2024) explains how institutions expand globally through incremental knowledge accumulation, reduced uncertainty, and increasing resource commitment -- aligning with SPC's experiential learning and strategic partnership approach. Together with the locally developed ORI Model, these frameworks provide a multidimensional basis for examining how innovation performance shapes and is shaped by internationalization efforts.

III. METHODOLOGY

A. Research Design and Locale

This study employed a mixed-methods developmental research design, combining quantitative and qualitative data collected and analyzed concurrently but presented separately before integration. The quantitative component used a descriptive-correlational approach to assess internationalization readiness, extent of understanding, and innovation performance. The qualitative component used semi-structured interviews with six purposively selected internationalization experts to validate the proposed Internationalization-Innovation Model and develop the Blueprint. The study was conducted at San Pablo Colleges (SPC), a private HEI in San Pablo City, Laguna, Philippines. SPC holds ISO 21001:2018 certification and PACUCOA accreditation (Level III in Liberal Arts, Business, and Education; Level II in Nursing and Computer Studies), and actively pursues international collaboration with institutions in Japan, India, and Indonesia.

B. Participants

A total of 108 participants completed the survey instrument through total enumeration sampling: 50 administrators and their staff, and 58 faculty members from college and graduate programs associated with internationalization efforts at SPC. Six experts in internationalization -- defined as higher education practitioners with active roles in planning, implementing, and evaluating internationalization strategies -- were purposively selected for qualitative interviews to validate the proposed model. Four institutional administrators subsequently served as validators for the final Internationalization-Innovation Wheel Model and Blueprint.

C. Instruments and Data Analysis

A researcher-made survey instrument for innovation performance -- validated by experts and pilot-tested with 30 respondents - demonstrated excellent internal consistency (Cronbach's alpha = 0.972). A validated instrument for internationalization readiness and understanding was used with permission. A semi-structured interview guide



and a researcher-made acceptability rubric completed the instrument suite. Quantitative data were analyzed using frequency and percentage distributions, mean and standard deviation, independent t-test, and Pearson product-moment correlation. Qualitative interview data were subjected to thematic analysis to identify patterns supporting model validation and blueprint development.

IV. RESULTS AND DISCUSSION

A. Level of Internationalization Readiness

Table I presents the participants' perceived level of readiness toward internationalization at San Pablo Colleges. The overall mean of 3.18 (SD = .596) falls within the Ready category, indicating moderate but consistent preparedness across dimensions. Research Collaboration received the highest mean (M = 3.44, Very Much Ready), indicating strong readiness to foster international academic partnerships. Curriculum and Instruction (M = 3.43) and Academic Standards and Quality (M = 3.41) also rated Very Much Ready, confirming the institution's alignment with international academic norms. Facilities and Support System (M = 2.87) and International Student Recruitment (M = 2.94) received the lowest ratings, both within the Ready range, signaling the need for improved infrastructure and targeted recruitment support.

Table I. Participants' Perceived Level of Readiness Toward Internationalization

Indicators	Mean	SD	Interpretation
Mobility and Exchanges for Students and Teachers	3.08	.763	Ready
International and Intercultural Understanding/Networking	3.14	.755	Ready
Curriculum and Instruction	3.43	.644	Very Much Ready
Research Collaboration	3.44	.674	Very Much Ready
Academic Standards and Quality	3.41	.656	Very Much Ready
Cooperation and Development Assistance	3.29	.724	Very Much Ready
International Student Recruitment	2.94	.807	Ready
Facilities and Support System	2.87	.844	Ready
Diversity of Income Generation	3.03	.767	Ready
Overall	3.18	.596	Ready

Note: 1.00-1.75 = Not Ready; 1.76-2.50 = Slightly Ready; 2.51-3.25 = Ready; 3.26-4.00 = Very Much Ready

These findings are consistent with Balagtas et al. (2012), who posited that internationalization drives continuous improvement by benchmarking against global standards. The lower ratings for facilities and recruitment align with Woldegiyorgis et al. (2018), who emphasized that adequate infrastructure and support systems are essential for an inclusive internationalization environment.

B. Extent of Understanding of Internationalization

The overall mean of 3.21 (SD = .608) reflects a High Extent of Understanding across all measured indicators. The highest-rated item was development of skills, knowledge, attitudes, and values among students, faculty, and staff



(M = 3.41, Very High Extent of Understanding), indicating strong awareness of how internationalization contributes to institutional and personal development. Indicators on student admission, curriculum development, and quality assurance (M = 3.29), and on improving education quality through institutional policies and practices (M = 3.31), also reached Very High Extent of Understanding. The lowest-rated item -- the link between internationalization and financial reduction, academic entrepreneurialism, and philosophical commitment to cross-cultural knowledge (M = 3.06) -- still falls within the High Extent category, suggesting minor gaps in strategic and financial dimensions of internationalization understanding.

C. Level of Innovation Performance

Table II presents the summary of perceived innovation performance across three dimensions. All three registered a Moderate Level, with Teaching and Learning Innovation highest (M = 3.22), followed by Technology and Governance Innovation (M = 3.06) and Social-Ecological Innovation (M = 3.02). The overall mean of 3.10 indicates active but developing innovation engagement, with substantial room to advance toward high innovation maturity.

Table II. Summary of Perceived Innovation Performance in San Pablo Colleges

Dimension	Mean	SD	Interpretation
Teaching and Learning Innovation	3.22	.576	Moderate Level
Social-Ecological Innovation	3.02	.670	Moderate Level
Technology and Governance Innovation	3.06	.774	Moderate Level
Overall	3.10	--	Moderate Level

Note: 1.00-1.75 = Very Low Level; 1.76-2.50 = Low Level; 2.51-3.25 = Moderate Level; 3.26-4.00 = High Level of Innovation Performance

Within Teaching and Learning Innovation, newly employed professors and associates (M = 3.30) and new study modules with innovative assessment methods (M = 3.28) both reached the High Level -- indicating strategic faculty renewal and active curriculum development. In Technology and Governance Innovation, new research projects (M = 3.30) and new processes in the marketing department (M = 3.26) also achieved High Level ratings, while areas such as new scientific/research centers (M = 2.81) and new laboratories (M = 2.87) lagged within the moderate range, signaling infrastructure constraints. Social-Ecological Innovation's lowest ratings in applied patents (M = 2.92) and startup/spinoff companies (M = 2.92) indicate that commercialization and entrepreneurial capacities are emerging but underdeveloped.

D. Relationship Between Innovation Performance and Internationalization Efforts

Table III presents the Pearson correlation results between innovation performance and the two dimensions of internationalization efforts. Innovation performance was significantly correlated with both Level of Readiness ($r = .758, p < .01$) and Extent of Understanding ($r = .748, p < .01$), leading to the rejection of the null hypothesis. These strong positive correlations confirm that institutions with higher innovation capacity across teaching and learning, social-ecological engagement, and technology and governance are more prepared and better informed to pursue international engagement.



Table III. Correlation Between Internationalization Efforts and Innovation Performance

Internationalization Efforts	Innovation Performance (r)	Interpretation
Level of Readiness	.758**	Significant
Extent of Understanding	.748**	Significant

**Correlation is significant at the 0.01 level (2-tailed).

These findings align with Vibar and Rosales (2021), who found that Philippine HEIs with stronger accreditation, organizational infrastructure, and budget allocation -- conditions supporting innovation -- exhibited more effective internationalization strategies. Similarly, Du et al. (2023) highlighted that governance and technology innovations, particularly when drawing on both domestic and international resources, expand the scope of collaboration and institutional impact.

E. Validation of the Internationalization-Innovation Wheel Model

Thematic analysis of expert interviews yielded six themes supporting the proposed model. First, Innovation as a Foundational Driver: experts consistently affirmed that innovation -- in teaching, governance, and community engagement -- is not a supplementary element but a foundational prerequisite for achieving internationalization goals. Second, Visual Coherence and Strategic Clarity: the wheel structure was unanimously recognized as effectively conveying dynamic movement, systemic integration, and forward institutional progression, facilitating cross-stakeholder communication of strategy. Third, Leadership and Governance Alignment: strategic leadership and adaptive governance were identified as critical for operationalizing the model, with emphasis on collaborative governance structures and institutional policy coherence. Fourth, Infrastructure and Institutional Capacity: experts noted that digital platforms, internationalization offices, and data systems are essential enablers of global engagement. Fifth, Integrated Curriculum and Competency Development: curriculum innovations aligned with international benchmarks and labor market demands were positioned as both products and preparatory mechanisms of internationalization. Sixth, Scalability and Contextual Flexibility: validators consistently appreciated the model's adaptability to institutions at different developmental stages and resource levels.

F. Development of the Internationalization-Innovation Blueprint

Drawing from thematic analysis of expert interview responses, five strategic pillars were identified to ground the Blueprint. Table IV presents these pillars alongside their key strategic directions.

Table IV. Five Pillars of the Internationalization-Innovation Blueprint

Pillar	Key Strategic Direction
Values-Oriented Governance	Internationalization rooted in global citizenship, inclusivity, sustainability, academic excellence, and intercultural understanding; aligned with institutional vision-mission.
Globally Aligned Curriculum	Outcome-based education benchmarked with global schools; aligned with SDGs and 21st-century skills; includes micro-credentials, joint programs, and virtual mobility.



Accessible Mobility and Exchange	Structured mobility with clear agreements, financial aid, pre-departure orientation, credit recognition, language preparation, and cultural integration support.
Strategic Collaboration and Research	Partnerships based on shared values, mutual benefit, and active collaboration; includes joint research, co-developed programs, and community-linked knowledge production.
Institutional Support and Innovation	Dedicated international office, cross-functional task forces, IT systems, policy frameworks, and monitoring tools to track internationalization progress.

The Blueprint operationalizes the Wheel Model by translating these five pillars into strategic directions for governance, curriculum, mobility, collaboration, and institutional support. It also incorporates monitoring and evaluation mechanisms to support continuous assessment, institutional accountability, and data-driven improvement of internationalization and innovation initiatives.

G. Level of Acceptability of the Proposed Model and Blueprint

Table V presents the validators' assessment of the proposed Internationalization-Innovation Wheel Model. The overall mean of 3.92 was verbally interpreted as Very Acceptable. Strategic Alignment received the highest rating (M = 4.00), indicating strong recognition of the model's capacity to align internationalization initiatives with innovation frameworks, institutional goals, and the SDGs. Visual Presentation, Operational Coherence, Application Clarity, and Content Relevance all received means of 3.90 (Very Acceptable). Validators described the model as 'comprehensive and relevant,' 'addressing both internationalization and innovation in a strategic and integrated manner,' and 'highly viable for long-term use because it promotes continuous improvement and adaptability.'

Table V. Level of Acceptability of the Proposed Internationalization-Innovation Wheel Model

Indicator	Mean	Interpretation
Visual Presentation	3.90	Very Acceptable
Strategic Alignment	4.00	Very Acceptable
Operational Coherence	3.90	Very Acceptable
Application Clarity	3.90	Very Acceptable
Content Relevance	3.90	Very Acceptable
Overall	3.92	Very Acceptable

Note: 4.00-3.26 = Very Acceptable (VA); 3.25-2.51 = Acceptable (A); 2.50-1.76 = Slightly Acceptable (SA); 1.75-1.00 = Not Acceptable (NA)

Validators noted the model's feasibility grounded in existing institutional systems, its adaptability to diverse institutional contexts, and its alignment with accreditation standards and the SDGs. These findings are consistent with Brandenburg et al. (2019), who emphasized that effective internationalization initiatives require institutional commitment, organizational support, and strategic alignment with institutional priorities.



V. CONCLUSIONS

Based on the findings of this study, the following conclusions are drawn:

1. San Pablo Colleges demonstrated a Ready level of internationalization ($M = 3.18$) with strengths in research collaboration, curriculum and instruction, and academic quality, while infrastructure and international student recruitment require further development.
2. Participants demonstrated a High Extent of Understanding ($M = 3.21$) of internationalization concepts, reflecting strong foundational awareness of how global engagement contributes to institutional development, though minor gaps remain in the financial and entrepreneurial dimensions.
3. Innovation performance was at a Moderate Level ($M = 3.10$) across all three dimensions, with teaching and learning innovation highest. This indicates active but developing innovation engagement with substantial room to advance toward high innovation maturity.
4. A strong, significant positive relationship exists between innovation performance and internationalization efforts in terms of both readiness ($r = .758, p < .01$) and understanding ($r = .748, p < .01$), confirming that innovation capacity is a meaningful driver of international engagement capacity.
5. The Internationalization-Innovation Wheel Model, validated through six qualitative themes, provides a strategic and visually coherent framework integrating governance, curriculum, mobility, research, and institutional support as mutually reinforcing institutional functions.
6. The Internationalization-Innovation Blueprint, anchored on five pillars, was rated as Very Acceptable ($M = 3.92$) by validators, affirming its strategic relevance, feasibility grounded in existing institutional systems, and long-term viability for HEIs pursuing innovation-driven internationalization.

VI. RECOMMENDATIONS

Based on the findings, the following recommendations are offered: (1) HEIs may introduce extensive training programs encompassing internationalization and innovation, including workshops and seminars on global educational practices, and forge partnerships with global organizations to exchange and adopt effective strategies. (2) Institutions should utilize technology to enhance creative teaching, streamline administrative procedures, and foster global communication, while regularly revising curricula to incorporate international perspectives and emerging trends. (3) Research endeavors investigating the influence of internationalization and innovation on institutional performance should be promoted, supported by policy improvements that include incentives for faculty participation in international projects and efficient resource allocation for global partnerships. (4) Collaborative mechanisms should be established with local and international communities to promote global awareness, alongside monitoring systems for tracking the advancement of internationalization and innovation initiatives and leadership development opportunities for administrators. (5) Higher education institutions may adopt and pilot the proposed Internationalization-Innovation Wheel Model as a strategic guide, adapting it based on institutional context, with attention to leadership alignment, infrastructure support, curriculum innovation, and contextual flexibility. The Blueprint may serve as a thematic reference for strategic planning across governance, curriculum, mobility, collaboration, and institutional support.



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