

# Internationalization of Higher Education Institutions: A Comparative Study in Taiwan and Japan

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## Abstract

**Purpose** – The internationalization of higher education institutions (HEIs) is the top stage of international relations among universities, and it is no longer regarded as a goal but as a means to improve the education of sustainability. As institutional commitments to internationalize higher education continues to grow, so does the need to critically consider the intended purposes and actual outcomes of the resulting programs and policies. This study focuses on how institutional international policies influence outcomes of internationalization in East Asia, especially in Taiwan and Japan.

**Design/methodology/approach** – 3,158 participants, including 1,192 Taiwanese and 1,966 Japanese academics, were recruited to complete the Academic Profession in the Knowledge Society (APIKS), an international survey examining the change in academic work in HEIs. The study mainly used two variables (institutional international policies and outcomes of internationalization) to answer the research questions, and all variables have high reliability and validity.

**Findings** – Three main results are: (1) Both Taiwanese and Japanese academics have higher agreements on the outcomes of internationalization for *enhancing academic quality* and *increasing mobility of students*; (2) *clear strategy for internationalization* can significantly influence teaching-oriented HEIs on internationalization in both countries; and (3) *funding for faculty members to undertake research abroad* can significantly influence research-oriented HEIs on internationalization in both countries.

**Originality/value** – This study provides insight into the relationship between institutional international policies and the outcomes of internationalization in Taiwan and Japan. It also offers some empirical evidence for university leaders to implement managerial strategies for internationalization to promote better higher education on sustainability in HEIs.

**Keywords:** Higher education, institutional international policies, internationalization, sustainability of education

**Paper type:** Research paper

## Introduction

The internationalization of higher education institutions (HEIs) in numerous East Asian countries has been discussed as a critical aspect of responding to globalization-related challenges and needs (Appe, 2020). Global recognition has become a significant benchmark for evaluating university performance, increasing the pressure to compete internationally (Kuroda et al., 2018). In developed East Asian nations, the creation of world-class universities and the focus on improving the world university rankings of educational institutions are often incorporated into the agenda for university internationalization, and HEIs have adopted strategic policies to achieve these goals (Williams *et al.*, 2021). To determine the optimal strategy for the internationalization of HEIs, the motivations driving a nation's pursuit of internationalization must first be clarified. Nowadays, Asian governments emphasize education for sustainability, focusing on international cooperation to promote sustainable education development. Blasco et al. (2021) suggested that the internationalization of HEIs is a "necessary value" and that the goals should be established at the start of the internationalization process to facilitate education for sustainability.

The perception that the internationalization of HEIs can improve the sustainability of education, research, and the institutions themselves increased in prominence when HEIs, national and regional governments, and other organizations began investing considerably in internationalization efforts (Helms *et al.*, 2015). Consequently, the need to monitor the internationalization performance of universities for education sustainability became necessary (Liu, 2022). Various studies and projects have been implemented to develop measures to evaluate university internationalization, aiming to determine the dimensions and useful evaluation indicators on education for sustainability. These dimensions may include (1) students, (2) staff, (3) administration, (4) funding and finance, (5) curricular and academic services, (6) research, (7) teaching, and (8) other factors (Williams *et al.*, 2021). The identified indicators indicate the importance of assessing and enhancing the sustainability of an HEI's international dimension, which is evaluated based on its stated aims and objectives.

Larsen (2016) noted that internationalization is changing the institutional organization and management of HEIs. The Organization for Economic Co-Operation and Development (Hénard *et al.*, 2012) suggested that an HEI should clarify its academic orientation (e.g., research or teaching orientation), consider its missions and objectives and the institutional environment affecting internationalization, understand the related factors to manage them competently, explore the relationships between institutional academic orientation and institutional international policies, and achieve favorable internationalization outcomes. In this context, a topic worth exploring is the types of institutional international policies that should be adopted for research- and teaching-oriented HEIs to achieve enhanced internationalization outcomes (Shin and Kehm, 2013).

The present study explored the relationships between institutional international policies and internationalization outcomes in Taiwan and Japan from a comparative perspective, thereby

making three main contributions to the literature. First, it addresses the literature gap about internationalization outcomes in two East Asian countries. Second, it explores the relationships between institutional international policies and internationalization outcomes from a comparative perspective. Third, it applies a complex concept to investigate the moderating effect of institutional academic orientation on the relationships between institutional international policies and internationalization outcomes, focusing on the extant research on the internationalization of HEIs in Taiwan and Japan.

Based on the purposes above, the present study proposed three research questions as follows:

RQ1: What are the internationalization outcomes of HEIs in Taiwan and Japan?

RQ2: How do institutional international policies influence the internationalization outcomes of HEIs in Taiwan and Japan?

RQ3: Does institutional academic orientation moderate the relationships between institutional international policies and the internationalization outcomes of HEIs in Taiwan and Japan?

## **Theoretical background**

### ***Global Trends in Internationalization of Higher Education***

Internationalization as a concept and strategic agenda is a relatively broad and varied phenomenon in HEIs, driven by a dynamic combination of political, economic, sociocultural, and academic rationales (Brandenburg *et al.*, 2020). Its impact on countries and institutions varies according to their particular contexts.

In the current global knowledge society, the concept of internationalization of higher education has become globalized, demanding further consideration of its impact on policy and practice as more countries and types of institutions worldwide engage in the process (Watabe and Ota, 2021). Knight (2004) indicated that the reasons for internationalization can be categorized into four groups: political, economic, academic, and social-cultural. The political reason is often considered more important at the national than institutional level. The economic sense has increasing importance and relevance in developed countries worldwide. The academic reason is linked directly with enhancing the teaching and learning process and achieving excellence in research and scholarly activities. The social-cultural reason for internationalization is changing, considering the potential impact of globalization.

Internationalization for the higher education of society aims to “benefit the wider community, at home or abroad, through international or intercultural education, research, service and engagement” (de Wit, 2020). Therefore, HEIs are suitably positioned to educate communities on internationalization and education for sustainability. Although HEIs vary in geographical and historical context, missions, and structures, they can make decisions, organize, and transform themselves to promote education sustainability into institutional and international practices. Woldegiyorgis *et al.* (2018) believe that international cooperative

research, academic mobility, international scholarships, international curriculum studies, cultural values, and historical and political context are the most important reasons for the internationalization of higher education on education for sustainability.

Overall, the reasons for the internationalization of higher education are mobility and exchanges for students and teachers, teaching and research collaboration, academic standards and quality, research projects, international and intercultural understanding, promotion and profile of the institution, and international student recruitment. Thus, HEIs must implement internationalization strategies through a critical understanding of their meaning and purposes and develop an international approach based on their society's unique values and culture to achieve sustainable education development.

### ***Internationalization of Higher Education in Taiwan: Policies, Practices, and Outcomes***

Universities in Taiwan have undergone significant transformations in terms of institutional mission and vision. One of their main drivers has been the extraordinary development of internationalization.

The first document that focuses on the international dimensions is the *White Paper for Universities*. In 2001, this official paper identified the problem that “the degree of internationalization was insufficient” (Ministry of Education Taiwan, 2001, p. 54). Therefore, the universities were criticized for not being internationalized. In reaction to such concern, two related programs—*Enhancing International Competitiveness of University Plan* and *Improving English Proficiency of Higher Education Students*—were released in 2002 to remedy this deficiency. The adopted strategies intended to enhance engagement with foreign universities through greater mobility and better language proficiency. With the greater pursuit of a world-class university and the new positioning of the nation-state on the global stage, the Ministry of Education (MOE) in Taiwan began to construct world-class universities in the early 2000s. The Executive Yuan initiated the Higher Education Macro Planning (HEMP) to propel the development of higher education and the country’s international competitiveness. Research-oriented universities were set to be funded for their academic performance by concentrating on selective institutions. In echoing this academic competition and international visibility, the *Development Plan for World-class Universities and Research Centers of Excellence Initiative* was implemented by MOE in 2005. The main concern for such initiatives was to raise the research standards and international publications to enhance international competitiveness on the global stage. Indeed, creating a higher proportion of foreign staff and students on campus has been the primary criterion for achieving better rankings (Tang, 2019).

One of the prominent measures in Taiwan to internationalize higher education has been recruiting international students, thus emulating many Western and Asian countries (Mok and Yu, 2016). The Executive Yuan in 2004 announced that “expanding recruitment of foreign students” was included in its national development plan. Five years later, in 2009, a Policy

Blueprint was released, stressing the importance of admitting non-local students. This move indicates that education is deployed to exercise its soft power as cultural currency (Lee, 2015). The Whitepaper for Talent Cultivation also lists enhancing “students’ international competitiveness” as one of its goals. Released in 2013, it highlights that students should be equipped with international mobility, foreign language proficiency, multicultural literacy, and global citizenship. To extend the internationalized learning environment and education innovation, a *Free Economic Pilot Zone* was proposed in 2013. Under this virtual free trade zone, foreign education providers can operate branch campuses or set up joint programs with local HEIs.

*The New Southbound Policy* was strategically launched in 2016 to enhance the integration with this wider region socially, economically, and educationally. The program admits students from Southeast Asia in cooperation with industries under the hope that these students can be trained with hands-on skills. Extending the effort of the Development Plan for World-class Universities and Research Centers of Excellence Initiative that ended in 2015, a new higher education policy—*Higher Education Sprout Project*—started in 2018. This project integrates various purposes, such as fostering teaching innovation, social responsibility, and research excellence, into a comprehensive scheme. Unlike the previous project focused on achieving academic excellence, the new scheme aims to ground the local and link the international. Research internationalization is not the only focus of the latest initiative, which pursues broader objectives such as teaching innovation. Furthermore, the *Global Talent Recruitment Program* (Yushan Scholar Program) was implemented to recruit the brightest scholars with add-on salaries from overseas organizations. Such a move supports the stance that Taiwan performs better than before in university league tables and research.

### ***Internationalization of Higher Education in Japan: Policies, Practices, and Outcomes***

In 1983, amid Japan’s reign as an inexorable economic force, Nakasone announced an ambitious plan entailing the recruitment of 100,000 international students into HEIs in Japan. Contrary to Nakasone’s egocentric or nationalistic ideas of internationalism, the Ministry of Education, Culture, and Sports (MEXT) focused on ensuring that the nation maintains a competitive edge in a world racing toward globalization. It laid out that the intended aims of this plan were to promote international exchange for the sake of (1) education and research, (2) international understanding and cooperation, and (3) human resource development – especially in developing countries (Ninomiya *et al.*, 2009). Thus, reaching out and recruiting excellent international students into Japan’s HEIs was vital. This plan led to the establishment of various support systems for international students.

In the mid-1990s, the Association of International Education, Japan (AIEJ) established the *Tanki ryugaku suishin seido* (short-term international education program), which in 2001 began offering international students studying in Japan an allowance of 80,000 yen per month, round-trip airfare, and a bonus of 25,000 yen if a student was successful in his/her application of a

scholarship. It has succeeded in encouraging the establishment of short-term international education programs using English as the language of instruction in Japan's national universities (Tsuneyoshi, 2005). In January of 2008, then Prime Minister Fukuda revealed a government policy that would open Japan up to the rest of the world, or more precisely, to more international students. Specifically, the ministries and organizations would be responsible for attracting international students to study in Japan, overseeing application and qualification processes, assisting with immigration procedures, supporting students in finding accommodation and with their matriculation, and finally providing those international students seeking employment in Japan with career guidance (Japan SIG, 2008).

In 2011, the Inter-University Exchange Program, or the Re-inventing Japan Project, was established by MEXT. This project emphasizes the development of English proficiency (rather than other languages) to raise study abroad statistics (Rose and McKinley 2018). To sustain outbound mobility and foster global citizens, MEXT looked to encourage HEIs to administer policies and programs that promote international education and study abroad through *Go Global Japan Project 2012*. Since 2014, MEXT has implemented a 10-year funding program under the *Top Global University Project* (hereafter TGUP). The TUGP employs two approaches to internationalization. One is rooted in supporting the development of first-class universities that produce top-ranked research (Type A), and the other sponsors educational reforms at universities for them to be relevant in a global context (Type B) (Yamada and Yamada, 2016). Despite these differences, all selected universities are required to meet the common goals indicated by MEXT. These objectives have been broken down into three categories: (1) internationalization, (2) governance, and (3) educational reform.

## **Methodology**

### ***Data Collection***

The research population for this study was academic staff employed in full-time positions in Taiwanese and Japanese public or private universities. Before the data collection, we compiled a list of potential participants' email addresses using contact information publicly available on universities' websites. The potential participants were contacted by email, including relevant information about the research. The purpose of the survey was explained in our opening remarks, and confidentiality was guaranteed to the respondents. The data were collected via web-based electronic questionnaires.

The study uses data from the international survey of the *Academic Profession in the Knowledge-Based Society* (APIKS). This survey was conducted in over 30 countries regarding six themes: career and professional situations, general situations and activities, teaching, research, external activities, governance and management, and academics in formative career stages (APIKS-IDB, 2021). All participating countries used the same survey, and the data were collected in 2018. Based on our research purpose, the analytical variables used in this study

were extracted from APIKS, including four questions about the respondents' background (academic field, academic preference, gender, and age), eight items assessing institutional international policies, and nine items examining the outcomes of internationalization.

Of the 4,500 staff members, 3,158 cases, including 1,192 Taiwanese and 1,966 Japanese, were used after missing values were excluded from the analysis, with a 70.2% valid response. According to Table 1, there was more natural science than social science academics in both countries; there were more teaching-oriented than research-oriented academics in Taiwan; on the contrary, there were more research-oriented than teaching-oriented academics in Japan; there were more male academics than females in both countries; as to academic age, there were more middle-aged academics in both countries. To verify the sample's representativeness, we have compared the demographic distribution of the population and sample of this survey and found that the survey respondents represent the total population relatively well according to their factors.

**Table 1**  
Demographics of research respondents

Individual Factors	Demographics	Taiwan ( <i>N</i> = 1,192)		Japan ( <i>N</i> = 1,966)	
		Frequency	%	Frequency	%
Academic field	Social science	576	48.3	598	30.4
	Natural science	616	51.7	1,368	69.6
Academic Preference	Teaching	748	62.8	515	26.2
	Research	444	37.2	1,451	73.8
Gender	Male	772	64.8	1,604	81.6
	Female	420	35.2	362	18.4
Age	Below 40	123	10.3	390	19.9
	40-55	731	61.3	911	46.3
	Above 55	338	28.4	665	33.8

### ***Variables and Measures***

This study used two variables (institutional international policies and the outcomes of internationalization) to answer the research questions. All participants were asked to rate the frequency with which they experienced these instructional practices using a 5-point ordinal response scale (1= strongly disagree to 5= strongly agree). An Exploratory Factor Analysis (EFA) was conducted on the data from each country to examine the variables' construct validity and internal consistency.

First, *Institutional International Policies* variable included eight survey items. Principal axis factoring with varimax rotation was used to assess the construct validity. The values of the KMO index for the Taiwan and Japan datasets were .889 and .878, respectively; Bartlett's tests of sphericity were statistically significant, with  $\chi^2_{\text{Taiwan}}(28) = 4443.821, p < .001$ , and  $\chi^2_{\text{Japan}}(28) = 6747.257, p < .001$ . Thus, these results demonstrated the adequacy of the data for EFA. The total variances explained by the eight items were 55.01% and 53.08%, with factor loadings ranging from .636 to .790 and from .602 to .799 for the Taiwan and Japan samples, respectively. In addition, each variable's internal consistency is tested using Cronbach's alpha. The reliability coefficients for the construct in the Taiwan and Japan datasets were .883 and .869, respectively.

Second, the *Outcomes of Internationalization* variable included nine survey items. The values of the KMO index for the Taiwan and Japan datasets were .920 and .864, respectively; Bartlett's tests of sphericity were statistically significant, with  $\chi^2_{\text{Taiwan}}(36) = 6527.894, p < .001$ , and  $\chi^2_{\text{Japan}}(36) = 7878.474, p < .001$ . The total variances explained by the three items were 60.45% and 62.84%, with factor loadings ranging from .687 to .828 and from .576 to .805 for Taiwan and Japan samples, respectively. The reliability coefficients for the construct in the Taiwan and Japan datasets were .916 and .872, respectively. These survey items have internal consistency, as Cronbach's alpha is relatively high. These factors explain a considerable amount of the variance of the items reported in Table 2.

### ***Data Analysis***

To answer our research questions, we proposed three research frameworks. First, we analyzed the data on outcomes of internationalization using descriptive statistics. Second, Pearson product-moment correlation analysis was used to explore the relationships between institutional international policies and the outcomes of internationalization. Moreover, to further examine the moderating effect of institutional academic orientation on the relationships between institutional international policies to the outcomes of internationalization in both countries, moderated multiple hierarchical regression was conducted to confirm the relationships among each item of the three variables. Additionally, before conducting the regression analysis, the multicollinearity among the independent variables was cross-checked, and there was no severe violation of general rules – the variance inflation factor (VIF) of the independent variables was lower than 10. There were no missing values and no outliers identified in the data.

**Table 2**

Variables, survey items, number of items, variances of construct validity, and reliability

Variables	Survey items	N of items	Taiwan		Japan	
			variances of construct validity	reliability	variances of construct validity	reliability
<b>Institutional International Policies</b>	1. Strategy for internationalization (P1)	8	55.01%	.883	53.08%	.869
	2. International exchange programs for students (P2)					
	3. Funding for faculty members to undertake research abroad (P3)					
	4. Funding for visiting international students (P4)					
	5. Funding for visiting international scholars (P5)					
	6. Recruitment of faculty members from foreign countries (P6)					
	7. Funding for faculty members to attend international conferences (P7)					
	8. Encouraging faculty members to publish internationally (P8)					
<b>Outcomes of Internationalization</b>	1. Enhanced prestige (O1)	9	60.45%	.916	62.84%	.872
	2. Enhanced academic quality (O2)					
	3. Increased revenue (O3)					
	4. Enhanced research networks (O4)					
	5. Increased mobility of students (O5)					
	6. Increased mobility of faculty (O6)					
	7. Weakening cultural identity (O7)					
	8. Increased brain gain (O8)					
	9. Increased costs associated with internationalization (O9)					

## Results

### *Descriptive statistics on the outcomes of internationalization in Taiwan and Japan HEIs*

As shown in Table 3, the results of descriptive analysis for outcomes of internationalization indicated that: (1) Taiwanese academics have much higher agreement on the outcomes of internationalization for *enhancing prestige, enhancing academic quality, increasing mobility of students, and increasing brain gain*; and (2) Japanese academics have much higher agreement on the outcomes of internationalization for *enhancing prestige, enhancing academic quality, enhancing research networks, and increasing mobility of students*. On the whole, Taiwanese and Japanese academics have higher agreements on the outcomes of internationalization for *enhancing prestige, academic quality, and student mobility*.

**Table 3**

Results of descriptive analysis for outcomes of internationalization in Taiwan and Japan HEIs

Outcomes of internationalization	Taiwan		Japan	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Enhanced prestige	<b>3.76</b>	0.97	<b>3.00</b>	1.10
Enhanced academic quality	<b>3.63</b>	0.98	<b>3.03</b>	1.11
Increased revenue	3.47	1.04	2.30	1.02
Enhanced research networks	3.52	1.00	<b>3.28</b>	1.06
Increased mobility of students	<b>3.66</b>	1.02	<b>3.11</b>	1.09
Increased mobility of faculty	3.50	0.96	2.81	1.02
Weakening cultural identity	3.48	1.18	2.60	0.92
Increased brain gain	<b>3.57</b>	1.02	2.59	0.99
Increased costs associated with internationalization	3.55	0.99	2.31	1.10

### *Correlation analysis between institutional international policies and the outcomes of internationalization in Taiwan and Japan HEIs*

According to Table 3, the study adopted correlation analysis to explore further what kinds of institutional international policies have the highest correlation with internationalization outcomes, which has been considered much better developments in Taiwan and Japan HEIs. Based on Table 4, the findings showed that: (1) For Taiwan HEIs, greater policies on *encouraging faculty members to publish internationally* can significantly enhance prestige ( $r = .632$ ), greater policies on *funding for faculty members to undertake research abroad* can significantly enhance academic quality ( $r = .552$ ), greater policies on *funding for visiting international students* can significantly increase mobility of students ( $r = .633$ ), greater policies on *strategy for internationalization* can significantly increase international brain gain ( $r = .560$ );

(2) For Japan HEIs, greater policies *on strategy for internationalization* can significantly increase institutional prestige ( $r = .491$ ), greater policies on *funding for visiting international scholars* can significantly enhance academic quality ( $r = .500$ ), greater policies on *funding for faculty members to undertake research abroad* can significantly increase research networks ( $r = .500$ ), and greater policies on *recruitment of faculty members from foreign countries* can significantly enhance mobility of students ( $r = .472$ ).

***Moderated multiple hierarchical regression analysis on the outcomes of internationalization through institutional academic orientation and institutional international policies in Taiwan and Japan HEIs***

As shown in Table 5, except for the predictive effect of institutional international policies, it also pointed out that *institutional academic orientation* could significantly predict the outcomes of internationalization in Taiwan and Japan HEIs. To further explore the relationships between institutional academic orientation and institutional international policies on the outcomes of internationalization, we adopted moderated multiple hierarchical regression analysis to examine how each item of institutional international policies affects the outcomes of internationalization moderated by institutional academic orientation.

According to Table 5, we found that: (1) For Taiwan teaching-oriented HEIs, institutional international policies of *greater strategy for internationalization* ( $\beta = .477$ ) and *funding for visiting international students* ( $\beta = .260$ ) can significantly and positively influence the outcomes of internationalization. (2) For Taiwan research-oriented HEIs, institutional international policies of *funding for faculty members to undertake research abroad* ( $\beta = .215$ ) and *encouraging faculty members to publish internationally* ( $\beta = .190$ ) can significantly and positively influence the outcomes of internationalization. (3) For Japan teaching-oriented HEIs, institutional international policies of *strategy for internationalization* ( $\beta = .234$ ) and *recruitment of faculty members from foreign countries* ( $\beta = .280$ ) can significantly and positively influence the outcomes of internationalization. (4) For Japan research-oriented HEIs, institutional international policies of *funding for faculty members to undertake research abroad* ( $\beta = .297$ ) and *funding for visiting international scholars* ( $\beta = .329$ ) can significantly and positively influence the outcomes of internationalization.

**Table 4**

The relationships between institutional international policies and the outcomes of internationalization in Taiwan and Japan HEIs

	P1	P2	P3	P4	P5	P6	P7	P8	O1	O2	O3	O4	O5	O6	O7	O8	O9
P1	1.00	.580**	.418**	.506**	.456**	.447**	.417**	.336**	<b>.491**</b>	.432**	.312**	.412**	.430**	.436**	.124**	.171**	.254**
P2	.681**	1.00	.434**	.619**	.487**	.430**	.370**	.269**	.261**	.320**	.162**	.348**	.365**	.326**	.055*	.105**	.242**
P3	.506**	.545**	1.00	.494**	.568**	.405**	.588**	.384**	.283**	.338**	.240**	<b>.500**</b>	.312**	.370**	.028	.126**	.140**
P4	.490**	.523**	.615**	1.00	.667**	.486**	.422**	.310**	.282**	.320**	.192**	.350**	.400**	.351**	.060**	.167**	.228**
P5	.479**	.510**	.652**	.719**	1.00	.478**	.526**	.408**	.310**	<b>.500**</b>	.220**	.440**	.373**	.386**	.078**	.191**	.221**
P6	.542**	.477**	.410**	.430**	.420**	1.00	.477**	.364**	.344**	.324**	.279**	.335**	<b>.472**</b>	.401**	.136**	.212**	.276**
P7	.433**	.420**	.426**	.465**	.467**	.431**	1.00	.554**	.339**	.369**	.312**	.389**	.278**	.366**	.099**	.180**	.144**
P8	.481**	.404**	.345**	.380**	.350**	.442**	.480**	1.00	.325**	.390**	.290**	.343**	.255**	.336**	.147**	.227**	.149**
O1	.541**	.477**	.403**	.430**	.410**	.431**	.366**	<b>.632**</b>	1.00	.652**	.629**	.524**	.456**	.555**	.350**	.387**	.335**
O2	.541**	.469**	<b>.552**</b>	.476**	.460**	.380**	.355**	.425**	.729**	1.00	.490**	.653**	.463**	.549**	.262**	.325**	.290**
O3	.440**	.393**	.342**	.359**	.345**	.313**	.298**	.269**	.583**	.545**	1.00	.434**	.392**	.486**	.348**	.356**	.224**
O4	.544**	.487**	.449**	.453**	.453**	.372**	.381**	.424**	.653**	.685**	.590**	1.00	.564**	.562**	.254**	.315**	.366**
O5	.477**	.402**	.335**	<b>.633**</b>	.359**	.344**	.359**	.351**	.468**	.461**	.555**	.551**	1.00	.671**	.289**	.323**	.398**
O6	.500**	.444**	.445**	.459**	.438**	.383**	.375**	.359**	.598**	.604**	.553**	.649**	.630**	1.00	.381**	.430**	.363**
O7	.429**	.350**	.305**	.299**	.300**	.327**	.304**	.306**	.418**	.351**	.579**	.512**	.638**	.532**	1.00	.592**	.368**
O8	<b>.560**</b>	.462**	.393**	.393**	.406**	.410**	.416**	.451**	.585**	.565**	.564**	.626**	.573**	.605**	.648**	1.00	.408**
O9	.454**	.381**	.328**	.349**	.331**	.330**	.332**	.364**	.511**	.457**	.424**	.484**	.445**	.507**	.453**	.584**	1.00

Note: 1. The correlation coefficient of the right-upper part is for Japanese HEIs; The correlation coefficient of the left-lower part is for Taiwanese HEIs. 2. **\*\*  $p < 0.01$**

**Table 5**

Moderated multiple hierarchical regression analysis of beta standardized coefficients on the outcomes of internationalization through institutional international policies in Taiwan and Japan HEIs

	<b>Outcomes of Internationalization</b>			
	Taiwan		Japan	
	Model 1	Model 2	Model 1	Model 2
<b>Individual variables</b>				
Academic field (social science=1, natural science=2)	.004	-.012	.005	-.003
Academic preference (teaching=1, research=2)	.010	.008	.018	.018
Gender (male=1, female=2)	.022	.020	-.018	-.015
Age	-.037*	-.026*	-.048*	-.046*
<b>Independent variables- institutional international policies</b>				
Strategy for internationalization (P1)	.640***	.369***	.181*	.280***
International exchange programs for students (P2)	.025	-.028	.010	-.113
Funding for faculty members to undertake research abroad (P3)	-.103	.134*	.119	.168*
Funding for visiting international students (P4)	.213*	.102	-.014	-.069
Funding for visiting international scholars (P5)	-.044	-.038	.012	.230***
Recruitment of faculty members from foreign countries (P6)	.027	.105	.339***	.159
Funding for faculty members to attend international conferences (P7)	-.068	.054	.036	.005
Encouraging faculty members to publish internationally (P8)	.161	.113*	.104	.132
<b>Interaction variables</b>				
P1*teaching-oriented HEIs	.477***		.234*	
P2*teaching-oriented HEIs	.084		-.039	
P3*teaching-oriented HEIs	.226		-.145	
P4*teaching-oriented HEIs	.260*		.063	
P5*teaching-oriented HEIs	.163		.170	
P6*teaching-oriented HEIs	.035		.280**	
P7*teaching-oriented HEIs	.241		.007	
P8*teaching-oriented HEIs	-.048		.081	
P1*research-oriented HEIs		-.070		-.044
P2*research-oriented HEIs		.187		.197
P3*research-oriented HEIs		.215*		.297*
P4*research-oriented HEIs		-.051		.219
P5*research-oriented HEIs		.174		.329*
P6*research-oriented HEIs		-.101		.041
P7*research-oriented HEIs		.041		.057
P8*research-oriented HEIs		.190*		.022
<b>F value</b>	62.657***	66.178***	50.619***	52.310***
<b>Adj R<sup>2</sup></b>	.509	.523	.436	.443

## **Discussion**

In the present study, a questionnaire was used to elicit the views of academics in Taiwan and Japan regarding the internationalization outcomes that they perceived as most favorable, the extent to which various institutional international policies have been implemented in their respective countries, and the results of these policies. The present study's findings can serve as a reference for policymakers in Taiwan and Japan, providing clear insights into a few critical dimensions of the phenomenon under study. In our conclusion, several key dimensions identified through our analysis are discussed.

First, our results revealed that the academics in Taiwan and Japan strongly agreed that internationalization outcomes enhance prestige, academic quality, and student mobility. The recent wave of globalization and the increasing emphasis on world university rankings have motivated the governments of Taiwan and Japan to increase their efforts to develop first-class universities. Several global university ranking lists enable the comparison of institutions in the global higher education sector; for each ranking, a slightly different set of indicators and methods is applied that considers dimensions such as global prestige, the proportion of international students, and international research collaboration.

### *Enhancing prestige*

HEIs must be “intensely concerned with reputation and prestige” (Geiger, 2004) to successfully operate within the educational market, where they compete and are constantly being compared and scored on rankings and league tables. The current academic environment in Taiwan and Japan emphasizes the value of research in enhancing academic prestige (Lee, 2015). In a study that focused on top universities, Marginson (2007) highlighted that the research capacity of Taiwan's HEIs is a crucial component that is measured and considered in rankings. Such research capacity indicates that the staff of an institution is highly professional and capable of achieving favorable citation results in high-impact journals. By contrast, Japan's HEIs prioritize the recruitment of accomplished researchers and talented students, provide innovative facilities with excellent internal operating processes, and design creative and up-to-date plans and programs as a part of their strategy to attain long-lasting academic prestige (Cyrenne and Grant, 2009). The present study expands on the aforementioned literature by exploring the differing viewpoints of Taiwanese and Japanese academics on how the internationalization of HEIs can enhance their prestige. In conclusion, encouraging faculty members to publish internationally and employing international research cooperation strategies are excellent internationalization policies that HEIs in Taiwan and Japan can implement to enhance their prestige.

### *Enhancing academic quality*

With the increasing emphasis on the role of the nation-state on the international stage, the Foundation for International Cooperation in Higher Education of Taiwan (FICHET) was jointly established in 2006 by Taiwan MOE and all universities. The FICHET seeks to promote

Taiwan's HEIs internationally by facilitating international cooperation, educational exhibitions, and conference hosting and promoting Taiwanese academics and culture. The main focus of such initiatives is raising research standards and increasing the number of international publications for its staff to enhance the international competitiveness and academic quality of Taiwan's HEIs. In Japan, international collaborations have been steadily increasing in research and scholarly publication (National Institute of Science and Technology Policy, 2019). The Japanese government has been providing considerable funding to create more opportunities for cross-border research collaboration and increase such partnership's productivity. For instance, the Japan Society for the Promotion of Science offers grants and research fellowships to Japanese researchers who intend to spend an extended period (1–2 years) abroad and foreign researchers willing to research at Japanese universities. Overall, various motivations and intentions drive HEIs to support international research collaboration that can enhance their academic quality, and funding is also provided for faculty members to undertake research abroad or for visiting international scholars to conduct research. These trends indicate that the process of HEI internationalization in Taiwan or Japan is mainly perceived as an academic endeavor directly linked to achieving excellence in research and scholarly activities.

#### *Increasing mobility of students*

East Asian countries have increasingly been adopting strategies to increase student mobility. These strategies include study abroad programs, recruiting international students and faculty members, collaborations with overseas universities, and developing an international curriculum (Gao, 2019). With globalization, Japan's universities must integrate their national education system with international education. In an increasingly knowledge-based economy, recruiting excellent international students and retaining them after graduation can contribute to a country's economic strength. Furthermore, our findings indicate that recruiting foreign faculty members plays a pivotal role in increasing the mobility of students in Japan's HEIs. According to Knight (2008), international faculty in non-English speaking environments often contribute substantially to increasing the number of English-taught courses and degree programs in an HEI while also increasing the English-language orientation of the HEI. The use of English for teaching and research is widely regarded as an important factor in the internationalization of HEIs. In Japan, creating an environment where international students and faculty members can live and work with Japanese students is essential for cultivating talent and connecting Japan with foreign countries (Ota, 2018). For Taiwan, the implementation of the New Southbound Talent Development Program (2017–2020) denoted the efforts of the Taiwanese government to change its international recruitment policy from the one-way recruitment of international students to an approach characterized by mutual talent mobility and co-cultivation involving neighboring countries. Given internationalization's educational and industrial needs, Taiwan has introduced customized professional training courses and scholarships explicitly created to attract outstanding foreign talent. Our study also revealed that encouraging local and

international students to participate in exchange and research programs is an effective policy for achieving regional talent sharing and circulation. In summary, recruiting international students and faculty members and encouraging local and international students to interact can actively strengthen academic and educational exchange with foreign countries and increase students' mobility, thereby fulfilling the international objectives of HEIs in Taiwan and Japan.

Second, institutional academic orientation can significantly influence the relationships between institutional international policies and internationalization outcomes. In higher education, universities are often classified as teaching-oriented or research-oriented. Teaching-oriented universities mainly focus on promoting knowledge acquisition and students' holistic development. That is, it fosters and encourages the thinking ability of a person while cultivating their creativity and social and cultural sensibilities, thereby establishing a foundation for civic engagement in diverse fields. Research-oriented universities are further subdivided by their area of focus, and these universities primarily focus on advancing research. They invest considerable resources into research, providing meaningful and extensive opportunities for their students and faculty members to participate in research. Although Taiwanese and Japanese academics at top research universities must balance their teaching responsibilities with their research and publishing goals, they must still adopt various teaching or research strategies to overcome the challenges of institutional policies aimed at the internationalization of HEIs.

#### *Influence of institutional academic orientation on internationalization of HEIs in Taiwan*

The internationalization of HEIs in Taiwan can be traced back to the 1990s. During that time, Taiwan's higher education system underwent substantial changes in terms of student and institutional growth (Hou, 2015). In 2011, the Taiwanese government announced its goal of expanding international student recruitment, driven by various growing trends, including an aging population, a low birth rate, and an active attitude toward recruiting international students from traditional exporting countries (e.g., European countries and the United States) and neighboring countries (e.g., Japan, South Korea, and China). To transform Taiwan into an East Asian higher education hub, the Taiwanese government began to develop Taiwanese students' global mobility competence and foster international students' education, focusing on sustainable development (Chan, 2014). At present, the Taiwanese government regards the policy of using English as a medium of instruction (EMI) as a method for promoting university internationalization, and it has implemented EMI for various academic subjects (Fenton-Smith *et al.*, 2017). To pursue the target of establishing world-class universities, the Taiwanese government has launched the Higher Education SPROUT Project (2018–2022) to enhance the quality of Taiwan's universities, promote their multifaceted development, and support them in increasing their international competitiveness and build leading research centers. Moreover, in the knowledge-based economy of the 21st century, scientific and technological innovations are necessary for progress. International cooperation can take the form of joint research projects,

joint conferences, the sharing of major research facilities, reciprocal visits by researchers and scientists, the exchange of information for creating innovative research ecosystems, and the training of world-class innovative and entrepreneurial talent; these developments contribute to the vibrancy of Taiwan's research innovation and industrial development.

Through statistical data analysis, the present study discovered that institutional academic orientation considerably influenced the internationalization outcomes of Taiwan's HEIs. Teaching-oriented universities should: (1) adopt effective teaching strategies (e.g., EMI programs) to cultivate global talent to ensure the continued growth and sustainable development of Taiwan's higher education; and (2) implement effective teaching projects to recruit and nurture talent and expand the foundation of Taiwan's human resources to increase student mobility. Research-oriented universities should: (1) enhance their research and innovation quality and strengthen their international academic influence and visibility through crucial research projects to promote their international academic prestige; and (2) launch joint research projects to promote the bilateral movement of outstanding researchers and scientists through appropriate research programs for enhancing academic quality.

#### *Influence of institutional academic orientation on internationalization of HEIs in Japan*

The Japanese government has been leading the internationalization of higher education through various initiatives and funding. Ninomiya *et al.* (2009, pp. 119–122) classified the internationalization policies and initiatives implemented by the Japanese government into “three primary phases” spanning the period from 1950 to the present day. The first stage (1950–1980) is characterized by a few national policies targeting international students. To promote mutual understanding between Japan and the United States, the Japanese government sent Japanese students to the United States to learn about democracy and acquire various skills and knowledge. During the second stage (1980–2000), Japan's MOE proposed the following policies in line with its aims for the internationalization of HEIs: (1) promote international exchange and cooperation in education, sports, and culture; (2) expand Japanese language education for foreigners; and (3) improve the education framework for Japanese children overseas and children returning from overseas. In the third stage of internationalization, which extends from 2000 to the present day, the Japanese government formulated policies and programs to promote international education, research, and study-abroad activities in HEIs. The Japanese government also embedded EMI goals in many of its internationalization policies. The Project for Global Human Resources Development and the Top Global University (TGU) Project (Brown, 2017) include incentives for institutions to establish or expand EMI offerings, which provide more opportunities for Japanese students to develop a high level of English proficiency before joining the workforce.

The Japanese government has recently implemented the TGU internationalization policy to realign institutional operations for internationalization comprehensively. The policy includes (1) expanding EMI offerings; (2) recruiting international students and faculty members; (3)

creating research centers and branch offices (for student recruitment) worldwide; and (4) establishing joint and double-degree programs with foreign universities. Furthermore, the Science and Technology Research Partnership for Sustainable Development Program (SATREPS), a Japanese government-initiated program that promotes international joint research between Japan and developing countries, was launched to strengthen the means and frameworks for the implementation of Sustainable Development Goals (SDGs) and to address global issues (Ashida, 2022).

Through statistical data analysis, the present study discovered that institutional academic orientation considerably influenced the internationalization outcomes of Japan's HEIs. Teaching-oriented universities should: (1) adopt appropriate teaching projects to strengthen their international exchange and educational collaborations with other universities, thereby improving their international competitiveness and increasing the mobility of their students; and (2) promote practical teaching projects (e.g., Top Global University Project) to increase the number of full-time foreign faculty, the ratio of international students to local students, the number of students sent abroad, and the number of subjects taught in foreign languages to improve the international academic prestige of their institutions. The SATREPS program is more effective for research-oriented universities because it serves two purposes. First, it can enhance research networks to increase international cooperation in science and technology between Japan and developing countries. Second, it can increase developing countries' self-reliant research and development capacity for promoting academic quality through international joint research, thereby establishing sustainable research systems that can resolve various problems, coordinate networking between researchers, and train future human resources in developing countries and Japan.

## **Conclusions**

Each university has its motivations, objectives, and targets for internationalization; however, the internationalization of universities is influenced by their institutional academic orientation and institutional international policies (Knight, 2008). In the present study, differences between Taiwan and Japan were identified regarding the institutional international policies implemented to promote the internationalization of HEIs. For teaching-oriented HEIs in Taiwan, implementing appropriate EMI teaching strategies, international exchange programs, and teaching activities involving international cooperation can all increase Taiwan's international brain gain and promote student mobility. For teaching-oriented HEIs in Japan, implementing appropriate educational collaboration programs and increasing the recruitment of excellent international students and faculty members can increase the mobility of students and enhance international academic prestige. For research-oriented HEIs in Taiwan, promoting the bilateral movement of outstanding researchers and encouraging international joint research projects can enhance their academic quality and international academic reputation. For research-oriented HEIs in Japan, funding faculty members to undertake research abroad and increasing

international research cooperation can enhance their research networks and the academic quality of their research.

Although the present study discussed several differences between the HEIs in Taiwan and Japan, its quantitative focus overlooks other reasons for these differences. Thus, qualitative research should be conducted to obtain further insights on this topic. In addition, this study acknowledges that the challenges of internationalization can influence the sustainability of educational achievements. However, it also posits that HEIs must identify alternative paths for supporting institutional international policies by considering multiple perspectives and, more importantly, achieving SDGs (Liu and Kitamura, 2019).

The 2030 Agenda for Sustainable Development should serve as a framework for implementing internationalization policies because HEIs generate knowledge related to international issues and contribute to society by enhancing the quality of teaching and research within and beyond an institution. Our research findings can serve as a reference for promoting international collaborations aimed at the internationalization of HEIs, thereby enhancing the sustainability of education.

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**2023 APIKS-CONFERENCE  
UNIVERSITY FOR CONTINUING  
EDUCATION KREMS**

Saturday, 2 September 2023

**Session 2/2**

**Internationalisation**

**Internationalization of Higher  
Education Institutions: A  
Comparative  
Study in Taiwan and Japan**

**Chair: Prof. Barbara Höning**

**Presenter: Prof. Sophia Shi-Huei Ho**

**Co-authors: Prof. Robin Jung-Cheng Chen**

**Prof. , Futao Huang**

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# Introduction (1/3)

- **The internationalization of higher education institutions (HEIs) in numerous East Asian countries has been discussed as a critical aspect of responding to globalization-related challenges and needs (Appe, 2020).**
- **Nowadays, Asian governments emphasize education for sustainability, focusing on international cooperation to promote sustainable education development.**
- **Blasco et al. (2021) suggested that the internationalization of HEIs is a “necessary value” and that the goals should be established at the start of the internationalization process to facilitate education for sustainability.**

# Introduction (2/3)

- **Various studies and projects have been implemented to develop measures to evaluate university internationalization. These dimensions may include (1) students, (2) staff, (3) administration, (4) curricular and academic services, (5) research, (6) teaching, and (7) other factors (Williams et al., 2021).**
- **The Organization for Economic Co-Operation and Development (Hénard et al., 2012) suggested that an HEI should clarify its academic orientation (e.g., research or teaching orientation), and understand the related factors to manage them competently, explore the relationships between institutional academic orientation and institutional international policies, and achieve favorable internationalization outcomes.**

# Introduction (3/3)

- **The present study explored the relationships between institutional international policies and internationalization outcomes in Taiwan and Japan from a comparative perspective, thereby making three main contributions to the literature.**
  - ① **It addresses the literature gap about internationalization outcomes in two East Asian countries.**
  - ② **It explores the relationships between institutional international policies and internationalization outcomes from a comparative perspective.**
  - ③ **it investigates the moderating effect of institutional academic orientation on the relationships between institutional international policies and internationalization outcomes, focusing on the extant research on the internationalization of HEIs in Taiwan and Japan.**

# Theoretical Perspective (1/3)

## *Global Trends in Internationalization of Higher Education*

- Internationalization for the higher education of society aims to “benefit the wider community, through **international education, research, service and engagement**” (de Wit, 2020, p. ii).
- Woldegiyorgis et al. (2018) believe that **international cooperative research, academic mobility, international scholarships, international curriculum studies** are the most important reasons for the internationalization of higher education on education for sustainability.
- Thus, HEIs must implement **internationalization strategies to develop an international approach** based on their society's unique values to **achieve sustainable education development**.

# Theoretical Perspective (2/3)

## *Internationalization of Higher Education in Taiwan*

- Released in 2013, *Talent Cultivation* highlights that students should be equipped with **international mobility**, foreign language proficiency, multicultural literacy, and global citizenship.
- Higher education *policy*—*Higher Education Sprout Project*—started in 2018, focusing on achieving **academic excellence**, the new scheme aims to **ground the local and link the international**.
- **Research internationalization** is not the only focus of the latest initiative, which pursues broader objectives such as teaching innovation. Furthermore, the *Global Talent Recruitment Program (Yushan Scholar Program)* was implemented to **recruit the brightest scholars**.

# Theoretical Perspective (3/3)

## *Internationalization of Higher Education in Japan*

- To sustain outbound mobility and foster global citizens, Ministry of Education, Culture, Sports, Science and Technology (MEXT) looked to encourage HEIs to administer policies that **promote international education and study abroad** through *Go Global Japan Project 2012*.
- Since 2014, MEXT has implemented a 10-year funding program under the *Top Global University Project (TGUP)* to support the development of first-class universities that **produce top-ranked research**, and sponsor educational reforms at universities for them to be relevant **in a global context**.
- Despite these differences, these objectives have been broken down into three categories: (1) **recruiting excellent international students**, (2) **international institutional governance**, (3) **international educational reform**, and (4) **international research cooperation**.

# Methodology-Descriptive Statistics

**Table 1 Demographics of research respondents**

Individual Factors	Demographics	Taiwan ( <i>N</i> = 1,192)		Japan ( <i>N</i> = 1,966)	
		Frequency	%	Frequency	%
Academic field	Social science	576	48.3	598	30.4
	Natural science	616	51.7	1,368	69.6
Academic Preference	Teaching	748	62.8	515	26.2
	Research	444	37.2	1,451	73.8
Gender	Male	772	64.8	1,604	81.6
	Female	420	35.2	362	18.4
Age	Below 40	123	10.3	390	19.9
	40-55	731	61.3	911	46.3
	Above 55	338	28.4	665	33.8

# Methodology-Variables and Measures (1/2)

**Table 2 Variables, survey items, number of items, variances of construct validity, and reliability**

Variables	Survey items	N of items	Taiwan		Japan	
			variances of construct validity	reliability	variances of construct validity	reliability
<b><u>Institutional International Policies</u></b>	<ul style="list-style-type: none"> <li>• Strategy for internationalization (P1)</li> <li>• International exchange programs for students (P2)</li> <li>• Funding for faculty members to undertake research abroad (P3)</li> <li>• Funding for visiting international students (P4)</li> <li>• Funding for visiting international scholars (P5)</li> <li>• Recruitment of faculty members from foreign countries (P6)</li> <li>• Funding for faculty members to attend international conferences (P7)</li> <li>• Encouraging faculty members to publish internationally (P8)</li> </ul>	8	55.01%	.883	53.08%	.869

# Methodology-Variables and Measures (2/2)

**Table 2 Variables, survey items, number of items, variances of construct validity, and reliability**

Variables	Survey items	N of items	Taiwan		Japan	
			variances of construct validity	reliability	variances of construct validity	reliability
<b><u>Outcomes of Internationalization</u></b>	<ul style="list-style-type: none"> <li>• Enhanced prestige (O1)</li> <li>• Enhanced academic quality (O2)</li> <li>• Increased revenue (O3)</li> <li>• Enhanced research networks (O4)</li> <li>• Increased mobility of students (O5)</li> <li>• Increased mobility of faculty (O6)</li> <li>• Weakening cultural identity (O7)</li> <li>• Increased brain gain (O8)</li> <li>• Increased costs associated with internationalization (O9)</li> </ul>	<b>9</b>	<b>60.45%</b>	<b>.916</b>	<b>62.84%</b>	<b>.872</b>

# Methodology-Data Analysis

1. **Descriptive statistics** were adopted to analyze the data on the outcomes of internationalization.
2. Pearson product-moment **correlation analysis** was used to explore the relationships between institutional international policies and the outcomes of internationalization.
3. **Moderated multiple hierarchical regression** was conducted to confirm the moderating effect of institutional academic orientation on the relationships between institutional international policies to the outcomes of internationalization in both countries.

# Findings (1/4)

**Table 3 Results of descriptive analysis for outcomes of internationalization in Taiwan and Japan HEIs**

Outcomes of internationalization	Taiwan		Japan	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Enhanced prestige	<b>3.76</b>	0.97	<b>3.00</b>	1.10
Enhanced academic quality	<b>3.63</b>	0.98	<b>3.03</b>	1.11
Increased revenue	3.47	1.04	2.30	1.02
Enhanced research networks	3.52	1.00	<b>3.28</b>	1.06
Increased mobility of students	<b>3.66</b>	1.02	<b>3.11</b>	1.09
Increased mobility of faculty	3.50	0.96	2.81	1.02
Weakening cultural identity	3.48	1.18	2.60	0.92
Increased brain gain	<b>3.57</b>	1.02	2.59	0.99
Increased costs associated with internationalization	3.55	0.99	2.31	1.10

# Findings (2/4)

**Table 4 The relationships between institutional international policies and the outcomes of internationalization in **Taiwan****

	P1	P2	P3	P4	P5	P6	P7	P8
O1	.541**	.477**	.403**	.430**	.410**	.431**	.366**	<b>.632**</b>
O2	.541**	.469**	<b>.552**</b>	.476**	.460**	.380**	.355**	.425**
O3	.440**	.393**	.342**	.359**	.345**	.313**	.298**	.269**
O4	.544**	.487**	.449**	.453**	.453**	.372**	.381**	.424**
O5	.477**	.402**	.335**	<b>.633**</b>	.359**	.344**	.359**	.351**
O6	.500**	.444**	.445**	.459**	.438**	.383**	.375**	.359**
O7	.429**	.350**	.305**	.299**	.300**	.327**	.304**	.306**
O8	<b>.560**</b>	.462**	.393**	.393**	.406**	.410**	.416**	.451**
O9	.454**	.381**	.328**	.349**	.331**	.330**	.332**	.364**

Note. P1: Strategy for internationalization; P3: Funding for faculty members to undertake research abroad; P4: Funding for visiting international students; P8: Encouraging faculty members to publish internationally; O1: Enhanced prestige; O2: Enhanced academic quality; O5: Increased mobility of students; O8: Increased brain gain

# Findings (3/4)

**Table 5 The relationships between institutional international policies and the outcomes of internationalization in Japan**

	O1	O2	O3	O4	O5	O6	O7	O8	O9
P1	<b>.491**</b>	.432**	.312**	.412**	.430**	.436**	.124**	.171**	.254**
P2	.261**	.320**	.162**	.348**	.365**	.326**	.055*	.105**	.242**
P3	.283**	.338**	.240**	<b>.500**</b>	.312**	.370**	.028	.126**	.140**
P4	.282**	.320**	.192**	.350**	.400**	.351**	.060**	.167**	.228**
P5	.310**	<b>.500**</b>	.220**	.440**	.373**	.386**	.078**	.191**	.221**
P6	.344**	.324**	.279**	.335**	<b>.472**</b>	.401**	.136**	.212**	.276**
P7	.339**	.369**	.312**	.389**	.278**	.366**	.099**	.180**	.144**
P8	.325**	.390**	.290**	.343**	.255**	.336**	.147**	.227**	.149**

Note. P1: Strategy for internationalization; P3: Funding for faculty members to undertake research abroad; P5: Funding for visiting international scholars ; P6: Recruitment of faculty members from foreign countries; O1: Enhanced prestige; O2: Enhanced academic quality; O4: Enhanced research networks; O5: Increased mobility of students

# Findings (4/4)

**Table 6**  
**Moderated multiple**  
**hierarchical**  
**regression analysis**  
**of beta standardized**  
**coefficients on the**  
**outcomes of**  
**internationalization**  
**through**  
**institutional**  
**international**  
**policies in Taiwan**  
**and Japan HEIs**

		Outcomes of Internationalization			
		Taiwan		Japan	
		Model 1	Model 2	Model 1	Model 2
<b>Independent variables-</b>					
<b>institutional international policies</b>					
	Strategy for internationalization (P1)	.640***	.369***	.181*	.280***
	International exchange programs for students (P2)	.025	-.028	.010	-.113
	Funding for faculty members to undertake research abroad (P3)	-.103	.134*	.119	.168*
	Funding for visiting international students (P4)	.213*	.102	-.014	-.069
	Funding for visiting international scholars (P5)	-.044	-.038	.012	.230***
	Recruitment of faculty members from foreign countries (P6)	.027	.105	.339***	.159
	Funding for faculty members to attend international conferences (P7)	-.068	.054	.036	.005
	Encouraging faculty members to publish internationally (P8)	.161	.113*	.104	.132
<b>Interaction variables</b>					
	<b>P1*teaching-oriented HEIs</b>	<b>.477***</b>		<b>.234*</b>	
	P2*teaching-oriented HEIs	.084		-.039	
	P3*teaching-oriented HEIs	.226		-.145	
	<b>P4*teaching-oriented HEIs</b>	<b>.260*</b>		.063	
	P5*teaching-oriented HEIs	.163		.170	
	<b>P6*teaching-oriented HEIs</b>	.035		<b>.280**</b>	
	P7*teaching-oriented HEIs	.241		.007	
	P8*teaching-oriented HEIs	-.048		.081	
	P1*research-oriented HEIs		-.070		-.044
	P2*research-oriented HEIs		.187		.197
	<b>P3*research-oriented HEIs</b>		<b>.215*</b>		<b>.297*</b>
	P4*research-oriented HEIs		-.051		.219
	<b>P5*research-oriented HEIs</b>		.174		<b>.329*</b>
	P6*research-oriented HEIs		-.101		.041
	P7*research-oriented HEIs		.041		.057
	<b>P8*research-oriented HEIs</b>		<b>.190*</b>		.022
	<b>F value</b>	62.657***	66.178***	50.619***	52.310***
	<b>Adj R<sup>2</sup></b>	.509	.523	.436	.443

# Discussion (1/7)

- First, our results revealed that the academics in Taiwan and Japan strongly agreed that internationalization outcomes **enhance prestige, academic quality, and student mobility.**

## Enhancing prestige

- Marginson (2007) highlighted that the research capacity of **Taiwan's HEIs** is a crucial component that is measured and **considered in rankings.** Such research capacity indicates that the staff of an institution is highly professional and capable of achieving favorable **citation results in high-impact journals.**
- **Japan's HEIs** prioritize the **recruitment of accomplished researchers and talented students,** provide innovative facilities with excellent internal operating processes, and design creative and up-to-date plans and programs as a part of their strategy to **attain long-lasting academic prestige** (Cyrenne and Grant, 2009).

# Discussion (2/7)

- First, our results revealed that the academics in Taiwan and Japan strongly agreed that internationalization outcomes **enhance prestige, academic quality, and student mobility.**

## Enhancing academic quality

- **Taiwan's HEIs** internationally by facilitating **international cooperation, educational exhibitions, and conference hosting** and promoting Taiwanese academics and culture to **increase the number of international publications** for its staff to enhance the **international competitiveness** and academic quality of Taiwan's HEIs.
- In **Japan**, international collaborations have been steadily increasing in research and scholarly publication (National Institute of Science and Technology Policy, 2019). The Japanese government has been providing considerable **funding** to create more opportunities **for cross-border research collaboration** and increase such **partnership's productivity.**

# Discussion (3/7)

- First, our results revealed that the academics in Taiwan and Japan strongly agreed that internationalization outcomes **enhance prestige, academic quality, and student mobility.**

## Increasing mobility of students

- For **Taiwan**, the implementation of the *New Southbound Talent Development Program* (2017–2020) denoted the efforts of the Taiwanese government to change its international recruitment policy from the one-way **recruitment of international students** to an approach characterized by **mutual talent mobility** and **co-cultivation** involving neighboring countries.
- In **Japan**, creating an environment where international students and faculty members can live and work with Japanese students is essential for cultivating talent and connecting Japan with foreign countries (Ota, 2018). Furthermore, our findings indicate that **recruiting foreign faculty members plays a pivotal role in increasing the mobility of students in Japan's HEIs.**

# Discussion (4/7)

- Second, institutional academic orientation can significantly influence the relationships between institutional international policies and internationalization outcomes.

## *Influence of institutional academic orientation on internationalization of HEIs in Taiwan*

- ① Taiwanese government regards the policy of using **English as a medium of instruction (EMI)** as a method for **promoting university internationalization**, and it has implemented EMI for various academic subjects (Fenton-Smith et al., 2017).
- ② To pursue the target of **establishing world-class universities**, the Taiwanese government has launched the ***Higher Education SPROUT Project*** (2018–2022) to enhance the quality of Taiwan's universities, promote their multifaceted development, and support them in increasing their **international competitiveness** and **build leading research centers**.

# Discussion (5/7)

- ③ **International cooperation** can take the form of **joint research projects, joint conferences, the sharing of major research facilities**, reciprocal visits by researchers and scientists, the exchange of information for **creating innovative research ecosystems**, and the **training of world-class innovative talent**; these developments contribute to the vibrancy of Taiwan's research innovation and industrial development.

# Discussion (6/7)

## *Influence of institutional academic orientation on internationalization of HEIs in Japan*

- ① During the 1980–2000, Japan's MOE proposed the following policies in line with its aims for the internationalization of HEIs: (1) promote **international exchange** and **cooperation** in education, sports, and culture; (2) **expand Japanese language education** for foreigners; and (3) improve the **education framework** for Japanese **children overseas** and children **returning from overseas** (Brown, 2017).

# Discussion (7/7)

- ② The Japanese government has recently implemented the Top Global University (TGU) internationalization policy, which includes: (1) **expanding EMI offerings**; (2) **recruiting international students and faculty members**; (3) **creating research centers** and branch offices (for student recruitment) worldwide; and (4) establishing **joint and double-degree programs with foreign universities** (Ashida, 2022).

# Concluding Remarks (1/4)

- In the present study, differences between Taiwan and Japan were identified regarding the institutional international policies implemented to promote the internationalization of HEIs.
- ① For **teaching-oriented HEIs in Taiwan**, implementing appropriate **EMI teaching strategies, international exchange programs, and teaching activities involving international cooperation** can all increase Taiwan's international brain gain and **promote student mobility**.
- ② For **teaching-oriented HEIs in Japan**, implementing appropriate **educational collaboration** programs and increasing the **recruitment of excellent international students and faculty members** can increase the **mobility of students** and enhance international **academic prestige**.

## Concluding Remarks (2/4)

- ③ For **research-oriented HEIs in Taiwan**, promoting the bilateral movement of **outstanding researchers** and encouraging international **joint research projects** can enhance their **academic quality** and international academic reputation.
- ④ For **research-oriented HEIs in Japan**, **funding faculty members to undertake research abroad** and increasing **international research cooperation** can enhance their **research networks** and the academic quality of their research.

# Concluding Remarks (3/4)

- Although the present study discussed several differences between the HEIs in Taiwan and Japan, its quantitative focus overlooks other reasons for these differences. Thus, **qualitative research should be conducted to obtain further insights** on this topic.
- In addition, this study acknowledges that the challenges of internationalization can influence the sustainability of educational achievements. However, it also posits that HEIs must identify alternative paths for supporting institutional international policies by **considering multiple perspectives** and, more importantly, **achieving SDGs** (Liu and Kitamura, 2019).

# Concluding Remarks (4/4)

- **The 2030 Agenda for Sustainable Development should serve as a framework for implementing internationalization policies because HEIs generate knowledge related to international issues and contribute to society by enhancing the quality of teaching and research within and beyond an institution.**
- **Our research findings can serve as a reference for promoting international collaborations aimed at the internationalization of HEIs, thereby enhancing the sustainability of education.**

**Thank you for your time and attention!**

**Q & A**

