

Case Studies of Japanese Universities' Collaborations with ASEAN, China, and Mongolia

Ariunaa Enkhtur^{a*}, Ming Li^a, and Xixi Zhang^a

^a*Osaka University, Japan*

*Corresponding author: Email: ariunaa.e@cgin.osaka-u.ac.jp

Address: Osaka University, Osaka, Japan

ABSTRACT

This paper elaborates on recent trends in Japanese higher education partnerships through three cases of collaboration between Japanese universities and higher education institutions in China, Mongolia, and the Southeast Asia (hereinafter referred to as ASEAN). Our analysis shows that partnerships were shaped by both top-down government policies and bottom-up activities based on institutional visions and past relations. Japan's educational quality and reputation, particularly in science and technology, is highly regarded by higher education institutions (HEIs) interested in developing competitive international programs. On one hand, Japan is striving to deepen and expand its partnerships with HEIs, particularly within Asia. A number of domestic and international factors - such as Japan's population decline; increasing competition among HEIs both on the domestic and international front; an ambition to remain competitive in a twenty-first century, knowledge-based economy; and Japan's strategy to strengthen its influence in Asia - drive the partnerships. On the other hand, while earlier partnerships were limited to student and faculty exchange or joint research projects, institutions increasingly prioritize more comprehensive strategic partnerships. Such strategic partnerships are important to overcome barriers during the COVID-19 pandemic that limit physical movement and interaction, and they may drive even greater collaboration and integration among Asian higher education institutions.

Keywords: ASEAN, China, Japan, Mongolia, transnational higher education

INTRODUCTION

An active engagement in global networks, partnerships, and collaborations with overseas institutions is the cornerstone of internationalization efforts at higher education institutions (HEIs). Global partnerships can be transformative for universities, enhancing research output, teaching and learning, curricula, student experiences, and the reputation of both institutions (Knight, 2014; Koehn & Obamba, 2012; Lanford, 2020). Japan was one of the first countries to actively develop robust international ties with foreign institutions. In the 1980s, the Japanese government's clarification of the national vision for internationalizing higher education resulted in a rapid increase in exchange programs for international

students and academics. Additionally, a number of foreign universities opened branch campuses in Japan by the end of the 1990s, including thirty-six branch campuses of United States (U.S.) universities; these branch campuses absorbed Japan's expanding demand for higher education due to the second-generation of baby boomers reaching college age.¹ Nevertheless, the Japanese government did not officially recognize these branch campuses as registered higher education institutions under Japanese education laws. This fact, combined with a prolonged recession of the Japanese economy that began in 1990 and a declining birthrate, eventually caused all campuses except one (Temple University in Tokyo) to close by 2004 (Huang, 2010; Lane, 2011; Lanford & Tierney, 2016). Therefore, during the early 2000s, the internationalization of higher education in Japan was similar to many other nations in that it mostly involved receiving students or sending students to another country.

Over the past decade, however, the higher education partnership landscape in Japan has slowly transformed from a focus on student exchange to long-term partnerships at multiple levels - from faculty level joint programs to institution-wide strategic partnerships with key "knowledge-partners." This transformation has been driven by a declining college-age population and an aging society, increasing domestic and international competition in research and education, and other economic, political, and social circumstances (Gyenes, 2020; Yonezawa, 2020). In addition to a series of government-led projects to promote internationalization and regional collaboration, official guidelines on creating a double degree, or joint degree, were introduced in 2014, followed by an amendment in the school law that allowed institutions to grant foreign degrees (Kuroda et al., 2018; Sugimura, 2016). Moreover, the number of overseas bases of Japanese universities reached 690 by 2018, and several joint universities were established in Egypt, Malaysia, and Vietnam under bilateral government agreements (Sugimoto, 2017).

In this paper, we highlight some recent trends in Japanese higher education partnership policies in light of this international expansion of Japanese higher education. In what follows, we elaborate some of the driving factors for these partnerships, highlight common challenges, and analyze opportunities for expansion through three case studies of Japanese universities' strategic partnerships in Southeast Asia (ASEAN), China, and Mongolia.

INTERNATIONALIZATION OF JAPANESE HIGHER EDUCATION

Previous literature demonstrates internationalization efforts at Japanese higher education institutions, described by a series of interrelated government-funded projects mainly focusing on the promotion of international student exchanges (both inbound and outbound) (e.g., Poole et al., 2020; Sugimura, 2018). During the Meiji period (1868-1912), the Japanese government received Western teachers to teach academic subjects at Japanese HEIs and sent students to Western countries to learn the "modern" knowledge as part of the higher education development process (Nakayama, 1989). Similarly, in the post-World War II period, Japanese students were sent to the U.S. through scholarship programs such as Garioa-Eloi (1947-1951) or Fulbright (1946-present) (Ninomiya et al., 2009).

Japan has been one of the top destination countries for student mobility in East Asia. As a result of government policies to recruit international students – the number grew rapidly from mere 5849 students in 1978 to 312,214 students in 2019 (JASSO, 2020). The series of policies, as shown in Figure 1, to recruit international students aimed to internationalize universities, to serve as a "catalyst for university reform" and to cement Japan's academic and research reputation overseas (Lassegard, 2006, p. 120). The latest policy to increase the number of international students to 300,000 by 2020 aimed to recruit excellent foreign

students who would work and contribute to Japanese economic development and internationalize the Japanese campuses (Rakhshandehroo & Yamamoto, 2017).

The key funding for internationalization of higher education under these policies, particularly Global 30 initiative (launched in 2009) or the Super (Top) Global University Project (launched in 2014), was associated with the expansion of English-taught course offerings, the recruitment of international faculties, and the creation of an “international” environment in teaching and research. However, the programs introduced under these initiatives often existed in silos from the rest of the institution, and many suffered from a lack of sustainable funding once a project ended. As a result, institution-wide internationalization did not happen on most universities (Poole et al., 2020).

Figure 1

Japanese Policies For The Internationalization Of Higher Education

Main policy initiatives	1954	1983	2003	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1 Japanese government scholarship scheme	Mainly Japanese-speaking students from Asia			To recruit highly-talented students from all over the world																		
2 100,000 international students plan																						
3 Strategic International Headquarters (SIH)	To develop university-wide internationalization at 20 pilot																					
4 300,000 international students plan	To promote inbound mobility including English-speaking students; reached the target 300,000 in 2020 (all student visa holders)																					
5 Global 30	13 universities: to offer courses and degree programs in English, shared																					
6 Inter-University Exchange Project (Re-Inventing Japan)	Two-way student mobility program under partnerships in designated regions/countries below																					
Campus Asia and ASEAN	13 programs																					
North America and EU	12 programs																					
ASEAN	14 programs																					
AIMS with ASEAN	7 programs																					
ICHEP (EU)	5 programs																					
Russia and India	9 programs																					
Latin America & the Caribbean, Turkey	11 programs																					
Asia (Campus Asia and ASEAN)	25 programs																					
Russia and India	9 programs																					
Collaborative Online International Learning	9 programs																					
EU	3 programs																					
Africa	8 programs																					
7 Go Global Japan	To promote outbound student mobility																					
8 Top Global University Project (Comprehensive Internationalization)	Type A: 13 universities (global competitiveness in research and education); Type B: 24 universities (institution-wide internationalization)																					

THE INTERNATIONAL EXPANSION OF JAPANESE HIGHER EDUCATION INSTITUTIONS

East Asian universities have been at the forefront of expanding and improving their transnational higher education systems (Yonezawa, 2014) to proactively construct global reputations (Collins & Ho, 2014). Under state policies and directives, East Asian universities have enhanced transnational programs and linkages, forging bilateral ties and establishing branch campuses with partners from both within and outside the region (e.g., Kitamura, 2014; Garrett et al., 2016). Across much of East Asia, international collaboration in higher education has long been a tool to attract highly skilled individuals and promote the internationalization of higher education (Kuroda et al., 2018).

Japan, on the other hand, is perceived to be slow to react to these changes, with some scholars commenting that “Japanese institutions have been virtually absent” at transnational higher education markets (Ohmori, 2004, p. 14). Although Japan lags behind in the race of establishing overseas campuses or offering joint programs, international collaborations in higher education, particularly with strategic countries, have always been a priority (Jung, Horta, & Yonezawa, 2018). Initially taking form as “human resource training” projects or faculty-level joint research projects with partner institutions, higher education collaborations began to take more comprehensive forms. The recent Ministry of Education, Culture, Sports,

Science, and Technology (MEXT) documents illustrate government policies to promote the overseas expansion of Japanese institutions not only to recruit international students, but to promote Japanese expertise.

Overseas partnerships in Japanese higher education date back as early as the 1960s – when the Japanese government’s Official Development Assistance (ODA) programs signed human resource development program between Japanese universities and Thailand’s King Mongkut’s Institute of Technology Ladkrabang (Nagano, 2017). The project included joint research, as well as short- and long-term faculty exchange programs. In 2005, MEXT policy documents began to mention “overseas bases” as one key strategy to recruit highly talented international students (MEXT, 2005). Shared and independent overseas offices of Japanese higher education institutions increased in the past decade, reaching 690 in 2018. The majority of these overseas bases (67%) are in Asia, particularly in East Asia (MEXT, 2020a). In 2007, the Asian Gateway Initiative, a comprehensive political and economic guideline, proposed that Japan should be the gateway connecting Asian countries, encouraging cooperation and linkages with overseas institutions (Kuroda et al., 2018).

One program that supports this regional focus is the Inter-University Exchange Project (also referred to as “Re-Inventing Japan”). The project, implemented since 2011, offers financial support to collaborative programs with overseas institutions - with different countries/regions in each project (Kuroda et al., 2018). The majority of collaborative programs supported by the projects focus on Asia (4 projects, 59 programs), followed by the US and EU (2 projects each with 20 programs in total), thereby aligning with Japan’s foreign policy objectives (MEXT, 2020b) (also see Table 1).

In 2015, Japan amended its School Law, legally allowing higher education institutions to introduce joint degrees with foreign universities (Kuroda et al., 2018). Before 2015, HEIs could offer only student exchange programs, double degree programs, and twinning programs by matching their programs with partner universities and granting separate degrees (MEXT, 2010). In 2014, though, the government introduced guidelines for developing international joint diploma programs (MEXT, 2014), recognizing the necessity for such programs to “enhance [Japan’s] international competitiveness from the standpoints of developing education, research, and human resources” (p. 1). Since then, twenty-four joint degree programs have been introduced in five years, while the number of double degree programs increased from 197 in 2007 (MEXT, 2007) to 1,196 by 2017 (MEXT, 2020c).

In 2018, the Central Council for Education introduced a comprehensive deliberation on the future vision for higher education in Japan under the title, “*Grand Design for Higher Education toward 2040*” (MEXT, 2018a). The vision calls for a shift in higher education in conjunction with current social changes, such as the 100-year life society, globalization, and regional revitalization. In this grand design, the “international expansion of higher education institutions” is described as one action to diversify the student population on campus to overcome the declining birth-rate. It states the following:

In order to break away from an education system centered on Japanese students entering universities at the age of 18 and to accept a diverse range of students, it is necessary to promote international expansion through the establishment of overseas schools of Japanese universities and cooperation with overseas partner institutions in Asian countries that have a high need for Japanese higher education (MEXT, 2018a, p. 16-18)ⁱⁱ.

According to current estimates, the 18-year-old population in Japan, around whom the current higher education model is focused, will decrease to 70% of the current level by 2040. On the other hand,

several other Asian countries are expanding their higher education capacities to enroll more college students than ever (MEXT, 2018a), and many universities in Asia are proactively seeking to improve their higher education systems through innovative approaches to establish “world-class universities.” This creates increased competition for Japanese institutions in the Asian higher education marketplace.

Figure 2

The Rationale For Japan’s International Expansion Of Higher Education

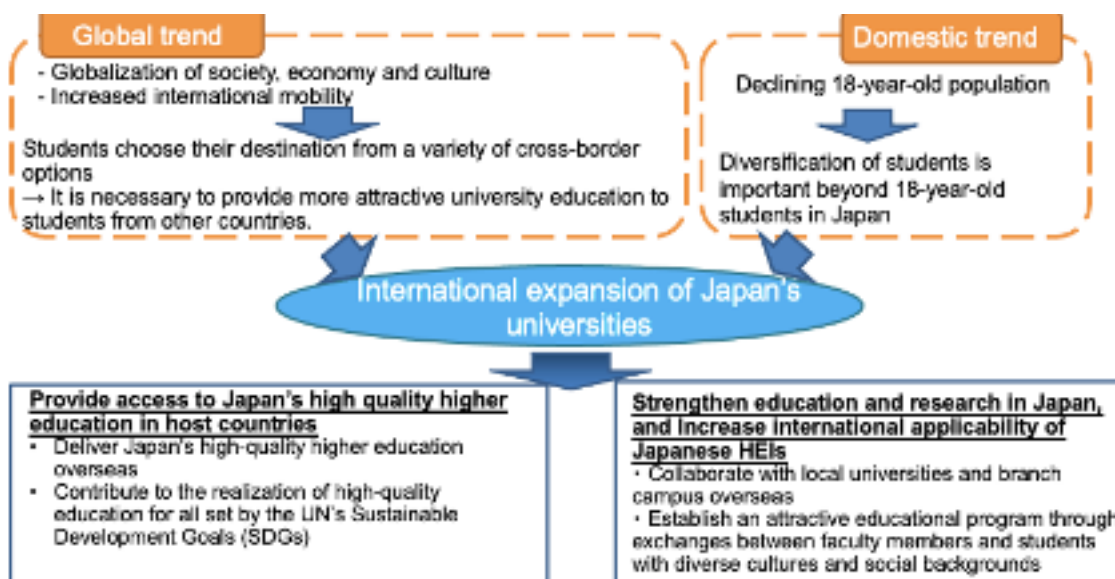


Figure 2 presents the rationales for expanding Japanese higher education overseas, including global trends - such as globalization, increased student mobility, and competition among providers to attract the best students - and the domestic context, including a decrease in the college-age population and the necessity to recruit more students. The guideline proposes that, by offering programs abroad, Japanese higher education would deliver high-quality education in foreign students’ local communities while strengthening the Japanese higher education sector’s global competitiveness.

Japan’s Ministry of Education, Culture, Sports, Science, and Technology (MEXT) has already introduced a tentative “post-300,000 international student plan” which follows the 300,000-student plan that drove significant developments in internationalization of higher education from 2008-2020. According to Saito (2019), the next internationalization policy targets transnational collaborations to create joint degrees, overseas bases, joint programs, and/or overseas institutes with partner universities, rather than mere student mobility.

Thus far, Japanese universities do not have an overseas branch university campus entirely managed by a Japanese university. The first branch campus of a Japanese national university in Malaysia, supported by both governments, is under development (Kakuchi, 2019). The C-BERT database at the University of Albany maintains a list of international campuses around the world; it lists two institutions as Japanese branch institutions. One is a joint institute of Dalian University of Technology, China and Ritsumeikan University, Japan, and a reasonable debate could be had over whether the institute is RU’s branch campus. The other one is Hawaii Tokai International College, a two-year American accredited college that allows students to transfer to Tokai University.

Moreover, a number of joint universities have been established in Egypt, Malaysia, and Vietnam based on inter-government agreements (Kuroda et al., 2018). The Egypt-Japan University of Science and

Technology (E-JUST) was founded in 2009. Then, in 2012, the Malaysia and Japan International Institute of Technology (MJIIT) was set up at University Teknologi Malaysia (UTM). Later, in 2016, the Vietnam-Japan University was established. All three institutions are national universities in their respective countries and were established to prepare highly skilled individuals for careers in science and technology fields by adopting Japanese-style education. In other words, although Japan is often criticized for lagging behind in cross-border education, there are already a number of initiatives to export its educational models and develop joint institutes and degree programs.

Compared to Australia, the United Kingdom (U.K.), or the U.S., Japan's case is unique in a way that financial gain is not the priority. Often, a number of government-related organizations work together to form a holistic and comprehensive collaboration covering education, economy, trade, and foreign relations. For example, the above-mentioned universities (MJIIT or VNU) involved the Japan International Cooperation Agency (JICA), Ministry of Economy, Trade and Industry (METI), and Ministry of Foreign Affairs (MOFA), along with the MEXT. (Kuroda et al., 2018). The Edu-Port Japan platform established in 2016 to “disseminate Japanese-style education and promote collaboration in education” (MEXT, 2017) is another example. The mission of the platform is 1) to build strong trust and collaborative relationships with other countries through education, 2) to promote the internationalization of Japanese educational institutions, and 3) to promote the overseas expansion of Japanese education institutions. It is a strategic approach by the Ministry of Education to expand collaboration between public and private institutes by involving economic and trade organizations, such as METI and the Japan External Trade Organization (JETRO), while aiming to expand Japan's education sector overseas by involving MOFA and JICA (Hayashi, 2019). Although the project revolves around compulsory education and technical and professional colleges, it also includes institutes of technologies and universities that prepare teachers.

In short, Japan's government policy documents and recent actions in fostering transnational higher education indicate more comprehensive joint programs involving state actors, universities, and industries at all levels of education. In the following section, we elaborate on some of the driving factors for these partnerships, common challenges, and opportunities for expansion by drawing from three cases that represent three different joint collaborations.

Three Cases of International Partnerships with Japanese Higher Education Institutions

Knight & McNamara (2017) classified transnational higher education according to two organizational principles: a) the nature of the relationship between two providers/HEIs (independent or collaborative) and b) by the mode of program delivery (program only, physical campus, or online). In this classification, independent program and provider mobility is “primarily responsible for the design, delivery, and external quality assurance of its academic programs and qualifications being offered in another country” while a collaborative relationship would consist of the HEIs in both countries working together on the design, delivery, and external quality assurance of the academic programs (Knight, 2019). As Table 2 shows, independent programs are referred to as “Franchise programs” while collaborative programs are considered “Partnership programs.” In the second row, an “International branch campus” is distinguished as an independent approach, while a “Joint university/institute,” often established by both HEIs in two countries, is considered collaborative.

As we will describe in greater detail below, the first case - The Osaka University ASEAN Campus Project - is, in reality, similar to a “franchise program.” The ASEAN campus was established in order to

promote the internationalization of education and research at Osaka University (Osaka University, 2020). In this project, a number of courses delivered to partner institutions are accredited by Osaka University.

Table 1

Six Categories Of Transnational Higher Education – International Program Provider Classification

Independent		Collaborative	
1	Franchise programs	4	Partnership programs
2	International branch campus	5	Joint universities/colleges
3	Self-study distance education	6	Distance education with local academic partner

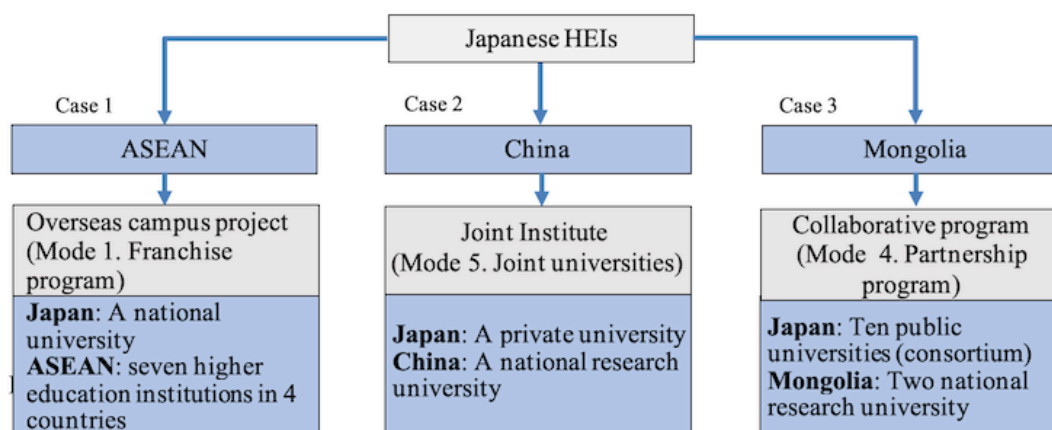
Source: Knight & McNamara, 2017

The second case - the Chinese Japanese Joint Institute at Dalian University of Technology (DUT-RU) - is an example of a joint institute offering academic programs jointly developed by two collaborating HEIs. Therefore, it is a classic example of a “joint institute.”

The third case - The Mongolian Engineering Higher Education Development Project - is a collaborative program offering a twinning program and other joint programs; however, as a bi-national project to develop higher education in the receiving country, it has other aspects that do not fit in the classification of a “collaboration.” For example, a “collaborative program” provision indicates joint efforts and responsibilities in degree granting, curriculum, and quality assurance. However, the programs under the third case are entirely managed by either the receiving or the sending institution; to be more specific, the “training programs” are managed by the Japanese institutions, while the “curriculum development” aspect is entirely managed by the universities in Mongolia. As it is made under two government agreements, we call the project a “collaborative program.” However, with the main aim to build teaching resources and develop the curriculum at Mongolian universities, it looks more like a one-way collaboration of receiving Japan’s education and know-how.

Figure 3

Three Cases Of Japanese Higher Education Partnerships



Source: Knight & McNamara, 2017

Drawing on a case study methodology (Yin, 2008), we reviewed relevant government policies, program/project reports, and other key documents from each partnership with the intention of analyzing

different Japanese higher education partnerships. After describing each case, we explain the scope of the collaboration, provide contextual information, explain the main driving forces from receiving and sending institutions, and highlight challenges and opportunities for further development. Then, the three cases are compared for their similarities and differences.

Case 1: The Osaka University ASEAN Campus Project

The Osaka University ASEAN Campus is an overseas campus project of a Japanese national university (Osaka University) established in the ASEAN region in April 2017 to facilitate Osaka University's activities in the region. It includes joint programs and student exchanges at seven higher education institutionsⁱⁱⁱ in four countries (Thailand, Vietnam, Indonesia, and Brunei Darussalam) in the region. It aims to promote Osaka University's education and research, particularly in science and technology programs such as bioengineering, applied physics, infectious diseases, environmental engineering, halal science, biodiversity, and bioresources. In addition, it offers programs in Japanese language and culture. The activity in ASEAN is viewed as part of a long-term strategy of investment in the development of the region to build a strong foundation for future collaboration (Sanders, 2019).

The region is distinctive for its growing youth population, its expansion of higher education, and its increased efforts to promote higher education partnerships in the region as a part of overall regional integration. The population of 15- to 34-year-olds is 213 million, and it is predicted to reach its peak in 2038 at 220 million (ASEAN Secretariat, 2017). Major university consortiums, such as AUN and ASEAN + 3 U Net, play a strong role in facilitating joint programs and other educational development projects.^{iv}

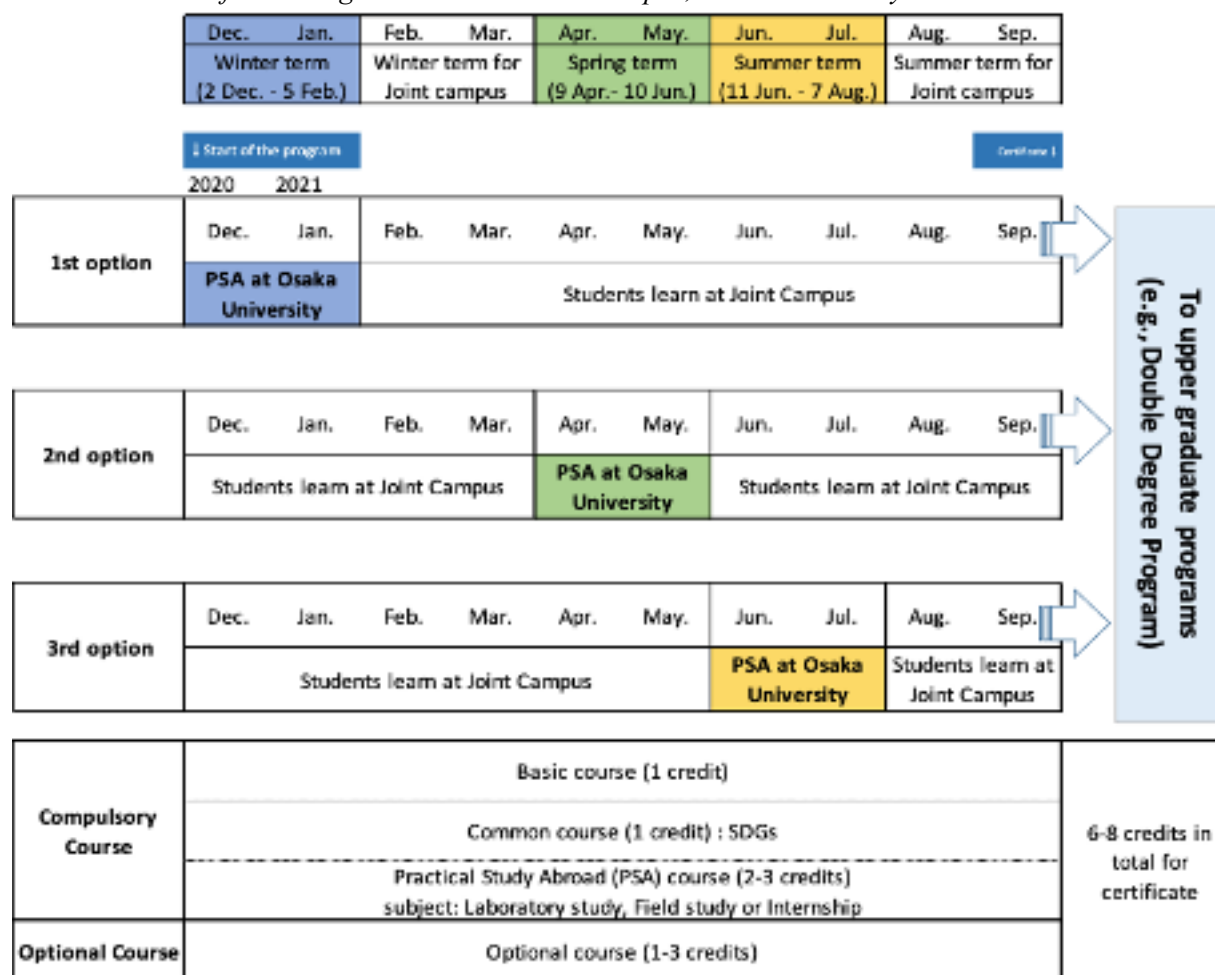
Osaka University set up the ASEAN Campus project with the following main objectives: 1) to prepare highly skilled, globally-competitive graduates in the local context, 2) to promote joint research between local industry and Japanese firms in the region, 3) to contribute to society by co-creating knowledge and innovation together with industry, government, academia, and civil society, 4) to set the structure for future innovation networks, and 5) to establish a new location for recruiting students. In other words, the ASEAN campus promotes a comprehensive partnership in the region, including industry, academia, and government.

The ASEAN campus is located at Mahidol University in Thailand and facilitates the following three main programs, including a Double Degree Program, Career Advance English Program in Brunei, and a newly introduced International Certificate Program (ICP).

The ICP program was launched in Fall 2020 as a non-degree, short-term program for students from partner universities in the ASEAN region. In total, students complete six to eight credits by taking online courses and visiting Osaka University for approximately sixty days. Students can come to Osaka University at the beginning, middle, or end of their respective programs. The flexibility of this program suits fast-paced regulations, such as national border lockdowns that were implemented during the Covid-19 pandemic. In case students cannot travel to Japan, they can change their plans after consulting with their professors, and they can reschedule to travel for later semesters of their choice (see Figure 4). Once they complete 6-8 credits, students receive a certificate from Osaka University. The program serves as one pathway to Japanese industry and education. The students completing this program learn about Japanese style education (e.g., labs), language, and culture. Most importantly, they form a connection with Osaka University professors. At the end of the program, they have more opportunities to work in Japanese companies in the region or to continue their education at graduate schools in Osaka University.

Figure 4

International Certificate Program At The ASEAN Campus, Osaka University



This overseas campus project has mutual benefits and contributes to regional development. Students from universities in the four ASEAN countries can obtain a high-quality education that might not be available at their local universities. Further, this project helps the universities develop human resources for the local community, as well as infrastructure that connects industry, government, and universities internationally.

From Osaka University's perspective, this project can attract and recruit highly motivated students for graduate studies by offering remote education and opportunities for research at its overseas units. The quality of education and research are equivalent to the Japanese curriculum. In addition, the graduates can also work for Japanese companies in the region, thereby cultivating high level local talent through long-standing collaborations in the ASEAN region (for example, in bioengineering) and the co-creation of innovation networks. On the other hand, like other international programs of Japanese universities, this project faces several challenges, such as a limited number of English-taught programs beyond science and technology or student difficulties in mastering the Japanese language if they pursue other fields.

Case 2: The Chinese Japanese Joint Institute at Dalian University of Technology (DUT-RU)

Since the 1980s, China has encouraged foreign HEIs to establish institutes and programs in collaboration with Chinese HEIs. The purpose has been to introduce advanced foreign education resources

to enhance Chinese HEIs' academic capacity and global competitiveness (Hu and Willis, 2016; Huang, 2008). Hence, transnational higher education has grown dramatically in China; by the end of 2019, there were over 600 Chinese HEIs collaborating with foreign HEIs/providers in running 2238 cooperative programs and institutions (Education on Line, 2020). Nearly half of the Chinese-foreign cooperative operations were at an undergraduate level, with 9 Chinese-foreign cooperation universities, 88 Chinese-foreign cooperation second-tier colleges, and 881 Chinese-foreign cooperation programs.

The International School of Information Science and Engineering (ISE) of Dalian University of Technology of China-Ritsumeikan University of Japan (DUT-RU) is the only Chinese Japanese cooperation second-tier college approved by the Ministry of Education of China. Founded in 2013, it set a precedent for international cooperation in higher education between the two countries. The host university, Dalian University of Technology (DUT), is a "First-Class" university in the national "Double First-Class Project"^v that aims to build world-class universities in China. Therefore, the joint collaboration is supported by the Chinese government through policy regulation and funding.

DUT has strengths in science, engineering and Japanese language. The provider university, Ritsumeikan University (RU), is one of the leading private universities in Japan, and it has attached great importance to internationalization in recent years. The joint institute is located in the Kaifaqu campus of DUT in Dalian city, Liaoning province. The School of Software of DUT and the College of Information Science and Engineering of RU have promoted educational and research exchanges since October 2007. In 2009, a delegation from DUT visited RU and proposed the idea of cooperation between China and Japan in running a university (Okubo, 2015).

The institute offers four-year degree programs with a maximum capacity of 210 students in each cohort (totaling more than 800 students). Forty students transfer to RU in the third year and receive degrees from both universities. The remaining students obtain their degrees from DUT. The ISE provision supports education development in three languages. The faculty members from DUT all have overseas study experience.

ISE sets three main objectives: 1) to create an educational model for developing globally competitive graduates in information technology (IT); 2) to establish an educational and research hub in East Asia, particularly in the northeastern region of China; and 3) to promote international collaboration between industry and academia (Okubo, 2015). The joint university has three education models: a dual undergraduate degree program (DUDP), a short-term study aboard program, and an international internship program. RU students have an opportunity to visit DUT for a certain period of time to jointly conduct research and corporate internships.

The educational and research hub acts as an Asian gateway for human resource development; the provision of human resources to Japanese, Chinese, and global corporations; and the formation of a joint industry-academic consortium. To promote collaboration between Japanese/Chinese corporations and RU/DUT, the two universities created a joint management committee not only for educational collaboration, but also for the enhancement of collaborations with industry. These committees invite guest professors, offer internship opportunities, provide scholarships, and sponsor laboratories.

In 1998, Dalian city built a software park with over 500 companies, about half of which are foreign-funded companies primarily from Japan, the U.S., and South Korea. From the host perspective, DUT aims to respond to the global demand for IT professionals by learning from Japanese vocational training and by combining the teaching resources and expertise of the two schools. In doing so, the partnership is offering

an innovative educational model to prepare international talents in the software and IT industries, with an emphasis on cross-cultural communication and teamwork skills.

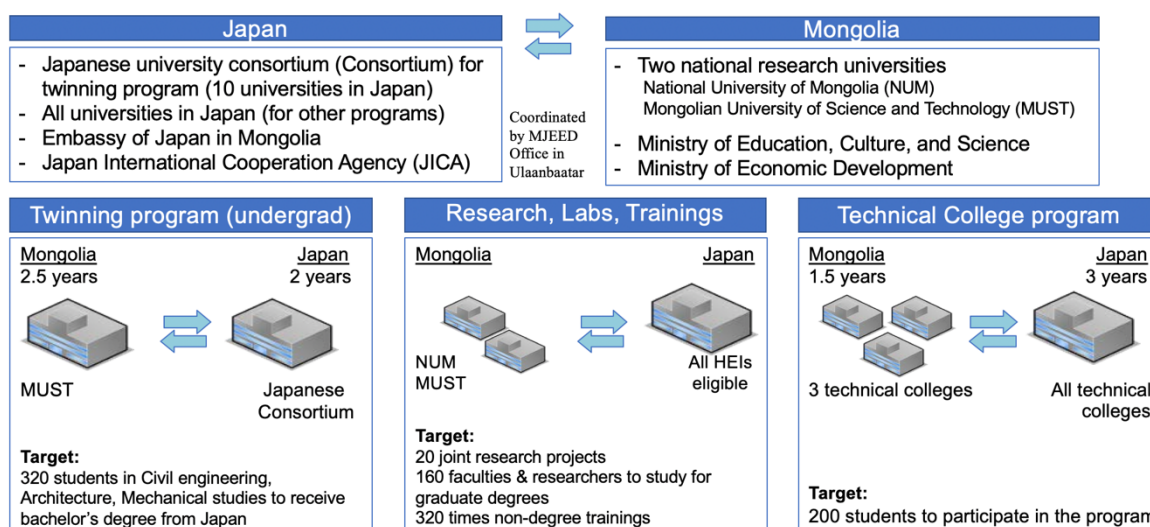
From RU's perspective, the partnership establishes a secure route to accessing talented Chinese students from one of the top institutions in China. Moreover, RU receives a set number of excellent international students in specific fields of study each year. RU also sends its domestic students abroad to take advantage of Dalian software park. The joint institute plays the role of a pilot model for the international expansion of Japanese higher education, enhances the internationalization of its home campus, promotes international industry-academia collaboration, and increases its global reputation. Further, students not only improve their skills to work in a global marketplace, but they develop cross-cultural understanding along with international experience.

In sum, both students and faculties benefit from this collaboration. RU is able to recruit talented Chinese students whose skills can improve the institution's global reputation. In turn, DUT introduced an innovative training system that integrates the teaching resources of two institutions and prepares students to shape the global information technology industry.

Case 3: The Mongolian Engineering Higher Education Development Project

Higher education has been one of the key reform areas in Mongolia since 2010 to enhance the quality and relevance of higher education programs and university management, and to prepare globally competent education programs and human resources (Asian Development Bank, 2011; HERP, n.d.). Less than one fifth of university faculties in the higher education sector held doctoral degrees. Research output is limited due to heavy teaching loads, a lack of research funding, and laboratory equipment and structural issues that disincentivized research (HERP, n.d.). Therefore, the Mongolian government sought international support and received a couple of long-term loans - one of which was from the Japanese government under a "Mongolian Engineering Higher Education Development Project" as a ten-year ODA loan^{vi} technical cooperation project between 2014-2024. The main aim of this project is to 1) improve the quality of engineering education (particularly at undergraduate level), 2) strengthen the teaching resources through graduate degree and non-degree trainings in Japan, 3) improve the teaching and research environment, and 4) develop high quality, highly-skilled graduates in the field of engineering (JICA, 2014). To achieve these aims, the project established a twinning undergraduate program, in addition to joint-research projects, the training of faculties and researchers in Japan (both graduate degree and non-degree), and a technical college program to prepare engineers (see Figure 5).

The twinning program is between a Japanese university consortium consisting of ten national universities in Japan and a leading national university in Mongolia in the field of engineering and technology, the Mongolian University of Science and Technology (MUST). The twinning program selects domestic students to study for 2.5 years at MUST in the fields of civil engineering, architecture, and mechanical engineering while taking intensive Japanese language classes. Then, the students take Japanese language tests and admission tests to transfer to Japanese counterpart universities. Although mastering a foreign language in two years while building foundational academic knowledge is challenging, many students have been able to meet the language requirement and transfer to Japanese universities. The entrance tests, the Japanese language program at MUST, and the remainder of the two years at Japanese universities are funded by the project. If a participating student in the joint program does not meet the counterpart university's admissions requirements, they either complete the program at their home institution or apply again the following year.

Figure 5*Mongolian Engineering Higher Education Development Project Scheme*

Overall, the project aims to foster 1000 graduates in the field of engineering through twinning programs, graduate level programs (Master's and Ph.D. degree programs) for junior faculties, non-degree programs for other senior faculties or faculties with graduate degrees, and technical college programs (see Figure 5). Facilitated by the JICA project office in Ulaanbaatar, the project fosters collaboration between institutions in two countries. The junior faculties from Mongolian HEIs are required to return to their institutions after receiving their graduate degrees in Japanese universities and work in the joint research projects, teach in the twinning program, and contribute to further faculty and institutional level partnerships. In other words, the collaboration ensures a holistic collaboration from student exchange to program development and research collaborations.

This partnership is also beneficial for Japanese universities and technical colleges. The 320 undergraduate students, 160 graduate students, and 200 technical college students (the target has not yet reached yet due to difficulties such as language difficulties) are filtered through a rigorous selection process, and all receive full scholarship if selected to study in Japanese counterpart. Japanese HEIs and technical colleges receive high quality students, in addition to being supported to form a long-term partnership with top national universities in Mongolia.

Although the Japanese government has provided technical cooperation in engineering higher education to other developing nations for over 60 years, such twinning and joint programs have only recently been introduced in the past decade (Nakano, 2017). This kind of long-term bilateral government initiative to support university level partnerships, with a larger aim to strengthen mutual relations and multilateral collaboration, can also be seen in joint institutes established in Egypt (Egypt-Japan University of Science and Technology was founded in 2010), Malaysia (Malaysia-Japan International Institute of Technology in 2011), and Vietnam (Vietnam-Japan University in 2016).

DISCUSSION

The comparison of these cases shows that the Japanese style of education and research, particularly in science and technology, is highly valued by partner governments and institutions interested in developing and strengthening their own programs. They are especially interested in developing graduates with the

knowledge and skills to compete on the global landscape. The approach to the partnership seems to be both top-down - encouraged by government policies and bilateral negotiations at the government level - and bottom-up, driven by institutional visions and mutual contacts. The case in Mongolia involves two governments, and the programs are directly supported by the funding from the project (top-down); however, once the program ends in 2024, the Mongolian universities are interested in continuing the partnership by making direct partnership agreements with Japanese universities. The partnership case in China can also be considered top-down, as the DUT is directly supported by the government in its funding and education plans. However, DUT developed the program with its own institutional goals to connect industry with the university. Finally, the case of ASEAN is a bottom-up approach initiated by the universities and established through existing faculty-level collaborations concerning student exchange and research. Osaka University began its collaboration with universities in the ASEAN region during the 1970s through its alumni networks. Over time, OU expanded its partnership to other universities in the region, now reaching four countries.

The partnerships have evolved to include industry, academia, and government entities with a variety of programs, ranging from non-degree trainings, to double degree programs, to internship programs through additional joint programs. The new international certificate program at ASEAN Campus, for example, strives to provide a flexible, short-term study abroad opportunity at the Japanese campus, allowing students to take the rest of the credits in their home country. Students who graduate from this program have multiple pathways; they can choose to work at local Japanese companies or study in the Osaka University graduate schools.

From the Japanese perspective, the motivations for collaboration in all three cases are similar, despite different partnership types. The primary incentives include 1) recruiting high quality international students to Japan, 2) contributing to regional integration in education and economics, 3) expanding institutions overseas, and 4) internationalizing local campuses.

However, all three cases face similar challenges, such as funding to keep the programs sustainable, curriculum development to ensure programs meet local standards and regulations in both countries, the recruitment of faculty to deliver programs in the host institution that meet the home university's standards, and other quality assurance issues. In addition, the pandemic's restriction on mobility disrupted all programs. Most joint programs relied on digital learning, making it difficult for students to gain cultural understanding and social support. It is uncertain how these programs will continue in the future if programs continue to rely on online instruction; there are open questions about whether students would pay tuition fees if programs are fully online (e.g., the DUT-RU joint program's tuition is seven times higher than the average Chinese university tuition) and how online programs might be evaluated in the future.

The pandemic also affected students' plans to study and work. Many students could not complete their programs in time because they could not complete fieldwork or experiments during the time allotted for their scholarship contracts (e.g., the MJEED program). Mongolian students could not return home even after completing their programs because the Mongolian government closed the border, even for its own citizens.

At the same time, increased geopolitical tensions between Asian nations and the US and other Western countries also affects relations with Japanese institutions. In July 2020, Japan approved an innovation strategy which asked research institutes to strengthen codes of conduct concerning research integrity and conflicts in interest while preventing the outflow of sensitive research and technologies linked to national security (Mallapaty, 2020). In the meantime, the Japanese government is considering tougher

rules to address the risk of foreign interference in scientific research, such as a more thorough vetting of visa applications from international students and researchers.

These rules and tensions are likely to slow future TNE collaborations; however, given the Japanese government policy changes and the domestic higher education situation, we think there will be further developments in institutional collaborations. During the pandemic, the institutions depicted in this article's case studies were able to retain students through in-country support and guidance. The delivery of education overseas in a student's home country through overseas campuses, study hubs, and satellite offices became a new trend in 2020 and is likely to stay for the next few years. On a global level, institutions realized that being flexible and delivering the whole program - or a part of a program - in the home country is key to overcoming economic and travel pressures. During the pandemic, the Ministry of Education of China allowed some Chinese-foreign cooperative institutions and programs to take temporary measures to increase student enrollment. Moreover, the Chinese government is assessing how the pandemic has prohibited students to study abroad and is striving to provide more options within the country (e.g., transnational education programs) with the goal of ensuring greater educational equity (Sohu, 2020). Therefore, despite many challenges, transnational joint collaborations are likely to expand or deepen, perhaps through a better utilization of technology.

CONCLUSION

This paper elaborated recent trends in Japanese higher education partnerships, such as policy discourses to promote the "internationalization of Japanese higher education," as well as increased development of joint programs, overseas bases, and joint institutes. Recent policy documents such as the "Grand Design for Higher Education towards 2040" or the "Post 300,000 Students Plan" illustrate the contemporary Japanese domestic situation of a shrinking youth population, increased competition both domestically and internationally, the importance of strengthening Japan's academic and research standing on global scale, and a strategic focus on Asia. As a result, Japanese higher education reform policies are encouraging university partnerships to move beyond student exchange.

While the current literature emphasizes a lack of Japanese international branch campuses and long-term joint collaborations (e.g., Ohmori, 2004, p. 14), we see increasingly diverse partnerships at Japanese universities, especially at national universities. Both the Japanese government and Japanese higher education institutions are interested in fostering deeper, multifaceted collaborations that include government, academic, and industry entities; are adapted to the characteristics of the region/country; and correspond to the needs of local students.

The cases presented in this paper represent three different types of partnerships in different regions - ASEAN, China and Mongolia. The ASEAN partnership is an example of an overseas base of one national university that was established to recruit international students and offer support for joint education and research projects; it hopes to expand its activities with institutions in the region and/or offer short-term programs to suit local needs. The DUT-RU partnership is a classic example of a comprehensive partnership that offers not only joint degree programs, but also joint management and collaborations with Japanese and Chinese companies. The Mongolian Engineering development project is a type of government aid project that trains individuals and develops educational and research programs on Japanese practices. This type of collaboration is most common with developing countries in the region. All projects, however, face challenges, from financial stability to government regulations. In future studies, we aim to collect more data

from local stakeholders to illustrate further details and differences - including the situation during the recent Covid-19 pandemic.

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Dr. Ariunaa Enkhtur is Specially Appointed Assistant Professor at the Center for Global Initiatives, Osaka University, Japan. Her research interests include transnational higher education partnerships, the internationalization of higher education, academic mobility, teaching and learning, and scholarship programs.

Dr. Ming Li is Specially Appointed Assistant Professor at Center for Global Initiatives, Osaka University, Japan. Her major academic fields include the internationalization of higher education, international student mobility, and foreign credential evaluation.

Dr. Xixi Zhang is Specially Appointed Assistant Professor at Center for Global Initiatives, Osaka University, Japan. Her research interests focus on Japanese linguistics, contrastive linguistics, transnational higher education programs, and distance education.

ⁱ After the World War II, the first-generation baby boomers were born from 1947 to 1949, and their children born from 1971 to 1974 were the second baby boomers.

ⁱⁱ Translated by the authors from Japanese.

ⁱⁱⁱ Mahidol University (Thailand), Bandung Institute of Technology (Indonesia), Vietnam Academy of Science and Technology (Vietnam), and Universiti Brunei Darussalam, Sultan Sharif Ali Islamic University, Universiti Teknologi Brunei (Brunei).

^{iv} Please refer to: <http://www.aunsec.org/>

^v The project launched in 2017 includes building world-class universities and Chinese first-class disciplines at a global level. Cf. Huang 2017.

^{vi} Japanese ODA Loan (also called Yen Loan) are long-term, low interest rate loans advanced to developing countries; they have the liability of being paid back (JICA website, <https://www.jica.go.jp/pakistan/english/activities/activity04.html>).