

The Management Strategy Behind Achieving Internationalization Through Twinning Programs

- Focused on the South Korean Maritime Universities -

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트위닝을 활용한 국제화 경영전략 - 한국의 해양대학교를 중심으로 -

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Abstract : South Korean universities have the common prevalent problem of significantly declining student populations. This study aims to explore the management strategy behind how the two South Korean maritime universities (Korea Maritime and Ocean University (KMOU) and Mokpo National Maritime University (MMU)) in particular, can solve the above problem by achieving internationalization through Twinning programs, taking advantage of their specialties in shipping and shipbuilding to export South Korean maritime education overseas. Twinning programs will also allow the universities to achieve the internationalization of their management, the globalization of their students, and the strengthening of the international competitiveness of the South Korean maritime industry. To achieve the above aim, this study will conduct a literature review on the internationalization background of general domestic and foreign universities. This study will also try to grasp the reality of, the obstacles to, and the factors that will accelerate the internationalization of the South Korean maritime universities. Finally, this study will research and propose directions the South Korean maritime universities can take to achieve pragmatic internationalization that comply with the current law on the export of higher education. This will be done by exploring the current status and trend of other universities' attraction of foreign international students, the legal feasibility and activation measures of the co-operation of curricula, and the researcher's own experiences.

Key Words : Internationalization of South Korean maritime universities, Export of maritime education, Twinning programs, Foreign international students, Korean language training, Types of higher education export based on current law

요 약 : 본 연구는 한국 해양대학교의 트위닝을 활용한 국제화 경영전략으로 학령인구 절벽에 직면한 한국 대학의 공통된 문제점을 해운, 조선 특성화 대학의 장점을 살려 한국 해운교육의 수출을 통한 대학경영 기여 및 대학의 국제화, 학생의 글로벌화, 해운사의 국제 경쟁력 강화를 위해 일반적인 외국대학 및 국내대학의 국제화 배경에 대한 문헌조사와 한국 해양대학의 국제화 현실, 국제화 장애요소와 촉진요소를 파악하여, 현행법에 근거한 고등교육 수출 유형에 따른 한국의 해양대학교가 나아갈 현실성 있는 국제화 방향을 타 대학의 외국인 유학생 유치 현황 및 추세, 교육과정 공동 운영에 대한 법적 타당성 및 활성화 방안, 연구자의 경험을 통하여 연구, 제시하고자 한다.

핵심용어 : 한국 해양대학교의 국제화, 해운교육 수출, 트위닝, 외국인 유학생, 한국어 어학연수, 현행법에 근거한 고등교육 수출 유형

1. Introduction

According to 'Population Projections for Provinces (2015~2045)',

the student population is predicted to decrease by 2,800,000 students, from 8,920,000 students in 2015 to 6,120,000 students in 2045 (National Statistical Office, 2017). The number of university applicants is also expected to steadily drop and by

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2018, the number of high school graduates is predicted to fall below the admittance quotas for universities. The number of university students is predicted to decrease by more than half from 530,000 students in 2015 to 240,000 students in 2023 (Basic statistics of education 2016, Ministry of Education, 2016a). As a result of the decreasing student population, the restructuring of universities has inevitably come to the fore. The closures of Daegu University of Foreign Studies and Hanzhong University, which both received the lowest rank in the Ministry of Education's first structural reform assessment, have been confirmed for September 2017. Since 2008, six four-year universities, two technical/vocational universities, and one theological university (a total of nine universities) have been subject to forced closure.

To prepare for the sharply declining student population, the basic plan of the 'Second University Structural Reform Assessment' was announced (Ministry of Education, 2017c). More university structural reform is expected. Compared to the first assessment, universities obtaining the lowest rank are expected to be hit by bigger quota cuts or closures of the university or its department/s. Thus, given the reality that the two South Korean maritime universities (Korea Maritime and Ocean University (KMOU), Mokpo National Maritime University (MMU)) are not unburdened from declining student populations, this study aims to prepare the universities for the problem by proposing the utilization of internationalization management strategy which takes advantage of the universities' specializations in shipping and shipbuilding.

2. Preceding Research on the Internationalization Background of Foreign and Domestic Universities and the Realities of the Internationalization of the South Korean Maritime Universities

2.1 The Internationalization Background of Foreign Universities

As the internationalization of a university involves the free exchange of knowledge, skills, and ideas, internationalization may threaten the survival of a university. However, if the high qualitative level of the university is maintained, internationalization will be an opportunity that will contribute to the strengthening of the university's international competitiveness (Scott, 2000). Australia, Singapore, and Malaysia are examples of countries which see the

internationalization of universities as opportunities and have taken active steps towards it.

Since 1994, the Australian government has been strengthening the export of its education through internationalizing its universities. Consequently, the percentage of foreign students enrolled in Australian universities has increased threefold from 8 % in 1996 to 24.2 % in 2005 (comprising 240,784 students out of a total of 994,977 students) (Department of Foreign Affairs and Trade of Australia, 2005).

Singapore initiated its 'Global Schoolhouse Project' in 2002 to attract foreign international students. In ten years, Singapore has managed to attract 84,000 international students, create more than 80,000 new jobs in Singapore, and increase the GDP (Gross Domestic Product) contribution of its education sector from 1.5 % to 3.2 % (Jeong, 2016).

In 2007, Malaysia's Higher Education Ministry announced its 'National Higher Education Strategic Plan of Malaysia' to strive towards becoming the hub of not only South-East Asia's, but the world's higher education market. To achieve this purpose, the Malaysian Qualification Agency (MQA, 2007), an education evaluation agency, was established by the Ministry. Moreover, to kick-start Malaysia's transformation into an education hub, a target has been set to increase the number of the then 86,000 foreign international students studying in Malaysia in 2010, by 200,000 students by 2020. This target represents 2.6 % of the world's international education market. These foreign international students are mainly enrolled in Twinning programs, Credit Transfer programs, and English Language programs (Hwang et al., 2012).

2.2 The Internationalization Background of Domestic Universities

The South Korean government took the 1997 IMF foreign exchange crisis as the sign to switch the focus of government policies from sending students abroad to study to attracting foreign international students to South Korean universities to mitigate the education deficit (KRW 5 trillion as of 2011, Ministry of Education, Science and Technology (now split), February 2012). This served as a turning point for South Korean universities to start studying internationalizing education environments and start planning improvements to their quality (Byun & Kim, 2011). This, coupled with the emerging problem of declining student populations due to low birth rates since the 2000s, has caused South Korean universities to put more

emphasis on their internationalization.

It was against this backdrop that the government-led ‘Study Korea’ project was adopted in 2004, through which policies to attract foreign international students to South Korea were pursued. This led to the rapid growth of Asian, especially Chinese, international students studying in South Korea. The new ‘Study Korea 2020 project implementation plans’ has increased the target, now aiming to attract 200,000 foreign international students to South Korea.

Furthermore, the government invested KRW 3.5 trillion from 1999 to 2012 into the BK21 (Brain Korea 21) financial support enterprise to nurture a global workforce and for the internationalization of research. The government also restricted the issuing of visas for foreign international students through the International Education Quality Assurance System (IEQAS). Through the ‘University for Creative Korea’ enterprise which was started in 2014 to achieve the specialization of metropolitan and regional universities, the government is inducing South Korean universities to internationalize by providing financial support and by including the level of a university’s internationalization as one of the assessment criteria for universities.

The result has been that the number of foreign international students (Degree courses + Non-degree courses) studying in South Korea have increased by more than 2.5 times from 49,270 students in 2007 to 123,858 students in 2017 as seen in Table 1 below.

Table 1. Number of foreign students studying in South Korean universities, 2007~2017

Year	Degree course	Not-degree course	Total
2017	72,032	51,826	123,858
2016	63,104	41,158	104,262
2015	55,739	35,593	91,332
2014	53,636	31,255	84,891
2013	56,715	29,208	85,923
2012	60,589	26,289	86,878
2011	63,653	25,884	89,537
2010	59,997	23,842	83,839
2009	50,591	20,008	75,850
2008	40,585	19,521	63,952
2007	32,056	17,214	49,270

Source: Ministry of Education, Republic of Korea

Excluding universities of education which do not have any foreign international students, the average number of foreign international students per four-year general university (there are 189 of them) is 655 students. Table 2 shows the South Korean universities with the most number of foreign international students.

Table 2. South Korean universities with the most foreign students, 2017

Ranking	Name of Univ.	Degree	Non-degree	Total
1	Korea	2,689	4,001	6,690
2	Kyunghee	3,368	1,663	5,031
3	Yonsei	2,057	2,638	4,695
4	Sungkyunkwan	3,088	1,297	4,385
5	Hanyang	2,533	1,047	3,580
6	Dongguk	2,180	1,389	3,569
7	Konkuk	2,061	1,138	3,199
8	Chungang	2,099	1,083	3,182
9	Seoul National	1,299	1,554	2,853
10	Korea Foreign	1,282	1,427	2,709

Source: Ministry of Education, Republic of Korea

2.3 The Realities of the Internationalization of the South Korean Maritime Universities

Compared to the average number of foreign international students per four-year general university of 655 students, KMOU has 122 (19 % of the average) and MMU has 22 (3 % of the average) of such students. These figures are extremely low, even accounting for the universities’ size and specialization. The number of foreign international students studying in the two maritime universities are as shown by Table 3.

Table 3. Number of foreign students studying in the South Korean Maritime Universities

Univ.	Year	Bachelor	Postgraduate	K-language	Total
KMOU	2015	24	101	42	167
	2016	43	101	26	170
	2017	49	66	7	122
MMU	2015	0	21	0	21
	2016	0	22	0	22
	2017	0	22	0	22

Source: KMOU, MMU

3. Research and Analysis

The South Korean maritime universities face the problem of having harsh internationalization conditions due to being small, specialized, regional, national universities and due to the prevalent problem among all South Korean universities of significantly declining student populations. Thus, this study will identify and explore the obstacles to and the factors that will accelerate internationalization, the current status and trends of other universities' attraction of foreign international students, and the legal feasibility and activation measures of the co-operation of curricula.

3.1 Obstacles to Internationalization

Not only do the two South Korean maritime universities have harsh conditions of internationalization as discussed above, they have not been facing competition for the past 70 years due to being the only two universities in South Korea in the shipping and shipbuilding fields. Consequently, they have failed to detect the trend of internationalization among general universities and have held a passive, defensive position towards it, still showing no signs of change.

Substantial resources and flexible working structures are needed to pursue internationalization. However, as the maritime universities are small, regional, national universities operated by state funds, there exists a difficulty in acquiring funds for internationalization. Furthermore, the rigidity of the organization of the civil servants, who are members of the maritime universities, acts as another impassable obstacle towards internationalization, which requires flexible working environments. Internationalization tasks are not standardized like office and student affairs but instead requires continuous changes to adapt to the changes in environment. Thus, given this nature, flexibility becomes a must for the organization. Moreover, it is not easy to stir up support for internationalization within the university as internationalization is not being perceived as having an immediate effect on the life or death of the university.

Even from the organizational perspective, the department responsible for international affairs is currently only ancillary and lacks the budget, standing, and payroll of traditionally core departments such as office and student affairs. Moreover, a strong professor-centered governance has formed, creating difficulties for the pursuance of internationalization strategy, which requires the university president's strong leadership.

From the locational perspective, the obstacles are that foreign international students prefer metropolitan universities, thus making it difficult to attract them to regional universities. Furthermore, the level of internationalization of the maritime universities is low also due to the physical and societal environment of regional areas. Despite efforts to pursue internationalization by the core of leaders within the university, the members of university are unable to provide proper support due to their low level of internationalization. Moreover, they lack the necessary cultural and religious understanding to deal with foreign international students and thus, there is much difficulty in attracting and managing international students. Moreover, it is not easy to stably attract competent foreign teachers.

3.2 Factors Accelerating Internationalization

As discussed in 3.1 above, there are many elements that hinder internationalization. However, there are many beneficial elements at the same time as well. If these elements are well utilized and are made accelerating factors, the South Korean maritime universities can achieve internationalization that is unique to them.

Firstly, the low tuition and accommodation fees flowing from the universities' status as national universities are highly attractive to foreign international students, as well as the universities' high employment rates (KMOU 70.8%, MMU 84.8%, Ministry of Education, 2014). As illustrated in Table 4, a large majority of the foreign international students who come to South Korea to study are from Asian countries with GDPs lower than South Korea. The top 3 countries from which the most number of foreign students come from (China, Vietnam, Mongolia) comprise 71.2% (88,182 students) of the total number of foreign students studying in South Korea. These students want to study

Table 4. Number of foreign students studying in South Korea by country of origin, 2017

Country	Degree course	Non-degree course	Total
China	44,606	23,578	68,184
Vietnam	4,698	9,916	14,614
Mongolia	2,723	2,661	5,384
Japan	1,601	2,227	3,828
USA	1,446	1,321	2,767
Others	16,958	12,123	29,081
Total	72,032	51,826	123,858

Source: Ministry of Education, Republic of Korea

in cost-efficient countries. Thus, they study in South Korea hoping to earn more and work in better environments than their fellow graduates back home. The cost of studying abroad is an important consideration in their university selection.

Secondly, the maritime universities being specialized has positive effects. The South Korean maritime universities possess commendable maritime education know-how which boasts a history of more than 70 years. This know-how has made great contributions towards South Korea's shipping industry becoming the world's 5th largest by fleet volume (85.9 million tons (Institute of Shipping Economics and Logistics (ISL), 2016)) and towards South Korea's shipbuilding industry becoming the world's best. As Asia's maritime leader, South Korea should ensure its maritime universities provide shipping and shipbuilding education to foreign international students from neighboring South-East Asian countries and aim to become the world's maritime leader through co-operating with those countries. The factors accelerating internationalization which the maritime universities need to develop and advance, and which are suitable are as follows.

Firstly, the university president must have a strong will and leadership towards internationalization. The university president must recognize that the overlooking of the declining student populations, the globalized competition structure, the neglecting of attracting foreign international students, and the decrease in international competitiveness, are crises to the university. Moreover, the university president must ensure that all university members recognize internationalization to be an indispensable change that needs to be pursued.

Secondly, the department responsible for internationalization should not remain as an ancillary organization. The department ought to belong to the headquarters of the university and to the core of leadership within the university. This will enable the department to secure considerable financial resources and conduct structurally flexible work (e.g. promoted to the International Exchange Headquarters). A foreign international student attraction and management team should also be operated within that organization.

Thirdly, it should be recognised that it is impossible to achieve internationalization without a specific, detailed strategy and that a practical, step-by-step, detailed roadmap for the university's internationalization should be formulated, with the department in charge thoroughly managing it.

Fourthly, a Korean language and culture education program

should be operated within the university to help foreign students get accustomed to living in South Korea and to improve their Korean language skills to ensure that they can follow undergraduate lectures.

Fifthly, a foreign student support center should be operated to further ensure that foreign international students can adapt well to living in South Korea. This can be done by utilizing foreign postgraduate students and Korean language lecturers to consult them on their lives and on admissions-related matters. Moreover, if these students are given help towards getting employed in South Korea or getting job placements in their home countries through career counselling by experts, the inflow of foreign international students can be accelerated without much marketing.

Lastly, South Korean maritime universities must find an appropriate target country and local partner university. An agreement with terms and conditions that are mutually agreeable and sustainable should be made with that partner university through negotiations. A one-sided agreement cannot last for long.

3.3 Types of Higher Education Export based on Current Law

Based on the Enforcement Decree of the current Higher Education Act, the types of higher education export which do not rely on a physical base like overseas branches or campuses, whereby domestic universities either provide the curriculum to foreign universities or operate the curriculum directly, are ① Twinning, ② Franchising, and ③ Alliance/Network schools (Ministry of Education, 2016).

1) Twinning

An agreement is reached between the domestic and foreign university with the curriculum design being led by the domestic university. The operation of the common curriculum agreed upon is allotted between the domestic and foreign university. If the student obtains more than ¼ of his/her graduation credits in the domestic university, a joint/dual degree will be awarded (Enforcement Decree of the Higher Education Act §15①, 2016).

2) Franchising

The domestic university allows the foreign university to use its curriculum which is fully operated by the foreign university. Intensive classes can be held utilizing full-time teaching staff of the domestic university who can be dispatched to the foreign university for a certain period during term or break time. If more

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than ¼ of the curriculum is taught through these intensive classes, degrees from the domestic university can be awarded with the approval of the South Korean Minister of Education (Decision of the 345th regular session of the National Assembly, 2017).

3) Alliance/Network schools

The domestic university reaches an agreement with the foreign university (foreign government) to establish a new university in the foreign country with joint participation from both Board of Directors. The domestic university and foreign university will award joint/double degrees through running a joint curriculum (Higher Education Act §21, 2017b, Enforcement Decree §13, 15, 2017a).

3.4 Curriculum Co-operation Proposal between South Korean Maritime Universities and Foreign Universities

The researcher recommends operating the Twinning program in 3.3.1 to admit students with foreign nationalities through the transfer system. This transfer system allows admissions of students with foreign nationalities outside the existing quota. Moreover, since the Korean Council for University Education's regulations on the screening of new students do not apply to students with foreign nationalities, the program can be implemented under the current law simply provided that the internal university rules and undergraduate Bachelor's rules are prepared (The researcher's meeting with the Korean Council for University Education's admissions planning team, 2017). However, foreign students who transfer into specialized Bachelor's degrees are only awarded degrees from the domestic university. Thus, students in their 1st and 2nd years of the program belong to the foreign university and are taught using the South Korean maritime universities' curriculum. Students in their 3rd and 4th years who come to South Korea to study belong to the South Korean maritime universities. A point needs to be noted regarding programs training marine technicians/ship officers. It first needs to be agreed with the agency issuing marine technician/ship officer licenses in the foreign country that students who go through the 2+2 Twinning program to obtain foreign (South Korean) degrees are eligible to take the local license exam. It must at least be confirmed that the target country is one which has a shipping agreement with South Korea on the mutual recognition of marine technician/ship officer licenses (e.g. The South Korea-Malaysia marine technician/ship

officer license recognition agreement, Ministry of Oceans and Fisheries, 2002).

1) The current applicable Higher Education Act and its Enforcement Ordinance

Currently, Article 29 Clause 2 Item 7 of the Enforcement Decree of the Higher Education Act states that candidates of the transfer system to Bachelor's programs that are purely for foreigners are overseas South Koreans and foreigners who have completed all of the education which corresponds to South Korean primary, secondary, and high school, overseas. Items 6 and 7 provides that to induce the internationalization and liberalization of university education and for the active attraction of foreign international students, the transfers of these students are possible without any quotas. The admissions of these students are also outside the existing admissions quota. Thus, foreign nationality students from foreign universities, which have concluded an agreement with a domestic university, who complete 2 years of studies in the foreign university and 2 more years in the South Korea university and satisfy the graduation requirements can obtain a South Korean Bachelor's degree.

2) Timeline

The timeline for the program is as follows: ①The domestic university selects a target country. ②The domestic university selects a target university (an experienced university which has maritime related department/s) ③Both universities conclude on the agreement. ④The domestic university provides the program curriculum to the foreign university. ⑤The foreign university gets approval for the program (approximately 3~4 months) from the respective country's Ministry of Education (e.g. Malaysia's MQA). ⑥The foreign university recruits students through marketing. ⑦Students of the program complete 2 years of studies in the foreign university. ⑧Students complete 2 years of studies in the domestic university after being transferred to the 3rd year of the domestic university. ⑨Graduation and award of degree.

From the researcher's experience, it is expected that it will take 4~5 years for the domestic university to get its first transfer student from the selection of the target university. Not only does a suitable target university need to be selected, this process takes more time than the formation of conditions in the domestic university, even in the presence of the university president's strong leadership towards internationalization.

3) Bachelor' s Degree

Foreign students who are transferred through this program must obtain ½ of the graduation credits for a four-year South Korean Bachelor's degree in their respective countries. In domestic universities, the program is either run on the notion that it is a foreigner-only major (Ministry of Education approval needed) or Track courses (Ministry of Education approval not needed; possible through amendment of university rules). The current number of graduation credits for the South Korean maritime universities are 150 credits but this can be lowered to 130 credits through changing university rules to reduce the burden of the major. Meanwhile, Korean language and culture lectures can be included to enable students to converse in Korean by time for graduation and develop competencies to work either in South Korea or in South Korean firms in their respective countries.

The exclusive courses established through agreements reached with foreign countries and universities shall be taught in English or in the country's native language if teachers able to speak that language are acquired. Foreign applicants wishing to transfer to the South Korean maritime universities individually outside the program must go through the Korean language program run by the South Korean maritime universities and obtain the 5th level of Test of Proficiency in Korean (TOPIK) for the department of marine technicians/ship officers and the 4th level of TOPIK otherwise, to be admitted. These students will be drawn up into lectures alongside domestic students which will be conducted in Korean.

4) Tuition Fees

Foreign nationality students paying tuition fees for admissions outside the existing quota can treat all of their tuition fee payments as alternated expenses of income. Furthermore, most of the foreign international students are recruited outside the quota, meaning that they are not included in the calculation of university tuition fees (Foreign international student tuition fee information, Ministry of Education, 2016b). Following this, in 2017, many universities such as Hanyang University, Chung-Ang University, and Kyung Hee University have increased tuition fees for foreign international students. Regarding this, the researcher holds the view that tuition fees for foreigner-only programs would vary according to the contents of the agreement, with the standard for tuition fees for these programs set after the deliberation by the university's tuition fee examination committee.

On the other hand, applicants applying individually after having satisfied the TOPIK requirements would be drawn up into programs alongside domestic students. Thus, they would be paying the same tuition fees as local students but required to pay the accommodation, food, and clothing expenses provided by the government to domestic students.

The alternated expenses of income from the payment of tuition fees by foreign international students should primarily be used to support the operation of programs they are in and secondarily for the internationalization of the university and the continuous attraction and maintenance of foreign international students.

5) Mutual Responsibilities and Roles

As Twinning programs involve education by two universities after an agreement has been reached between the foreign and domestic university, mutual trust and co-operation determines the success or failure of the program more than anything else.

The foreign university has the responsibilities of: obtaining authorization for the program from the respective country's government; employing appropriate marketing to recruit excellent students; thoroughly educating and managing the students during their first 2 years of study; and of ensuring students can get Korean language and culture lectures during those 2 years to help accustom them to life in South Korea. Moreover, the foreign university must ensure that: there must at least be one class (minimum 15~20 students) per year to ensure the continuity of the program; the lecturers of the course must be experienced and knowledgeable; and that the foreign university makes a request of manpower to the South Korean university if there are fields in which the foreign university cannot find suitable lecturers. Shall this situation arise, the foreign university is to pay for all the lecture fees and costs of living and transportation of the lecturer dispatched from South Korea.

The South Korean university is to provide the curriculum to the foreign university and give it licenses to use the South Korean university's name, logo, and photos for the purposes of promoting the program. The South Korean university is to have right to manage and supervise the program through visits to the foreign university to manage the standard of the students. The South Korean university is to cooperate on the Korean language and culture lectures. The South Korean university also has the rights to reject inadequate students enrolled in the program who are about to transfer to the South Korean university after their

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first 2 years, through a document screening process.

6) Clauses for Written Agreements

The agreement should include the following clauses. More clauses can be added with mutual agreement if necessary.

I. Specifications of The Program

①Title, ②Academic Department, ③Type of Program (2+2years), ④Eligibility of the Students, ⑤Admission criteria, ⑥Graduation criteria.

II. Responsibilities and Rights of Both Parties

①Responsibilities & rights of foreign university, ②Responsibilities & rights of local university, ③Common Responsibilities & rights.

III. Effect of the Agreement, Extension, Variation and Termination, Arbitration.

3.5 Proposal for the Operation and Activation of the Korean Language Course

The number of international students studying non-degree courses has increased three-fold from 17,214 students in 2007 to 51,826 students in 2017. These non-degree courses include Korean language and exchange students, as well as other students. A large number of these students are participants of Korean language programs. The number of these students can be used to estimate the number of foreign international students undergoing undergraduate studies in the following year. It has become standard practice for foreign international students to go through a one-year non-degree language course before starting their undergraduate or postgraduate studies. As seen in Table 2, the universities which attract the most number of foreign international students have many of these international students in non-degree courses. These universities are fully committed to attracting foreign international students through these non-degree courses. Thus, if the two South Korean maritime universities intend to internationalize, they must understand the importance of Korean language programs and fully support them.

1) Attracting and Managing Foreign Korean Language Course Students

The change in the number of foreign international students studying in non-degree courses from 2007 to 2017, has much significance. Table 4 illustrates the number of foreign international students studying in South Korea in 2017 by country of origin whereas Table 5 illustrates 2007's.

Table 5. Number of foreign students studying in South Korea by country of origin, 2007

Nation	Degree	Non-degree	Total
China	23,106	10,544	33,650
Vietnam	1,496	406	1,902
Mongolia	903	746	1,649
Japan	1,250	2,604	3,854
USA	617	771	1,388
Others	4,684	2,143	6,827
Total	32,056	17,214	49,270

Source: Ministry of Education, Republic of Korea

The biggest change has been the rate of increase in Vietnamese students studying in non-degree courses. The number in 2017 is 24.4 times the number in 2007, the next biggest increase, Mongolia being 3.6 times. This signals the increase in the proportion of international students who enroll in non-degree courses and degree courses afterwards, using private funds. This is comparable to the past where Vietnamese international students received national scholarships to study degree courses overseas. Thus, the two South Korean maritime universities should concentrate their time and resources to Vietnam to attract a universal and unspecified number of foreign international students. On the other hand, the number of foreign students enrolled in non-degree courses in South Korea showed an increase for all countries of origin but for Japan. This can be seen as a reflection of the relationship between the two countries in recent years.

The Korean language course includes casual speaking, listening, reading, vocabulary and grammar. It is comprised of 800 hours of lectures over a year with 2~4 cultural visits, 2~4 presentations, running on a 2~4 semester system with each semester having an internal assessment. The annual fees differ slightly by university but are around KRW 5~6 million a year. The TOPIK test, which is run by the National Institute of Korean Language six times a year, determines the student's progression into undergraduate studies. According to the Ministry of Education's guidelines, the condition for admissions into undergraduate studies is the 3rd level of TOPIK, with the graduation requirement being the 4th level of TOPIK. However, South Korean universities are perceiving the 3rd level of TOPIK to be insufficient for a student to be able to understand undergraduate course lectures. Thus, the trend is to increase the

requirements to the 4th level for admission and the 5th level for graduation. The researcher's experience on this has been that foreign students who apply individually to be drawn up into the marine technician/ship officer course alongside domestic students need to be on the 5th level standard to understand the undergraduate lectures.

Thus, the admissions criteria for such students should be the 5th level of TOPIK. However, this is not the case for students under the Twinning programs established by agreement between the domestic and foreign universities.

2) Proposal for Activation

It was seen in Table 4 that students from Asia (China, Vietnam, Mongolia) comprise 71.2% (88,182 students) of the entire South Korean foreign international student population. These countries have lower GDP per capita than South Korea and many international students from these countries face much difficulty in obtaining funds to study abroad. Thus, if the university provides for an environment, within the legal boundaries, whereby these students can study and work to fund their studies at the same time, these students would be able to continue their study-abroad life more stably and for longer. One activation measure is finding healthy firms to co-operate on programs which link industry with academia.

The current visa issuance and residence guidelines for foreign international students (Ministry of Justice, 2016), which regulates the part time employment of foreign international students, are as follows: ①Whether the employment is relevant to the major and whether the work can be carried out concurrently with studies; the employment must be socially acceptable to be carried out by a student; the work done must not be deemed contrary to goodwill and/or other social orders; and the change in location of employment is limited to two instances a year; ②The allowed hours are: undergraduate and language course students (20 hours per week, 25 hours per week for universities with certified Education Internationalization Competency); postgraduate students (30 hours per week); working hours during weekends, public holidays, and vacation periods are unlimited. However, students in language courses need to have resided in South Korea for at least 6 months to be eligible for part time employment. ③ Foreign students wishing to take on part-time employment must apply to the Immigration Office with the approval of their supervising professors or the person in charge of managing international students. Changes such as the change in the location

of employment must also be reported within 15 days. ④Students who are judged to be unable to work concurrently with their studies (i.e. students with attendance rates in the latest academic year of below 70% or whose average credits are below the C grade) are restricted from undertaking part time employment.

4. Conclusion

The number of foreign international students studying in South Korea, which signifies the extent of the internationalization of the universities, is currently 123,858 students in 2017. This is an average of 655 students per four-year general university. The two South Korean maritime universities show figures that are far too low compared to general universities even when accounting for the maritime universities' size and specialization. To prevent the closure or large-scale contraction or restructuring of the South Korean maritime universities due to significantly decreasing student populations, the universities must prepare internationalization measures.

The best approach to attract foreign international students that is in line with the current Higher Education Act is the foreign student transfer system which is unaffected by the existing quota, through Twinning programs. This program involves students studying for 2 years in the foreign partner university to obtain ½ of the graduation credits for a four-year South Korean Bachelor's degree. Students then undergo Korean language and culture lectures and obtain the remaining ½ of the graduation credits in the South Korean university to obtain a South Korean degree. The conditions for transfers to the South Korean universities are an appropriate standard of grades and the 2nd level of TOPIK for the foreigner-only class or the 4th level for the domestic class (5th level required for the marine technician/ship officer course). Foreign students who graduate from this course would be able to converse in Korean, with some students being able to work using Korean. Graduates would have been taught to a sufficient level to be able to take on leadership roles in their respective countries by acting as the bridge between their respective countries' and South Korea's shipping and shipbuilding industries. Furthermore, domestic South Korean students would be able to expand their global capabilities through interacting with these foreign international students and would be able to use this opportunity to advance to foreign ships or multinational shipping or shipbuilding companies. The South Korean shipping and shipbuilding firms which employ graduates of this program would

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be able to strengthen their international competitiveness. Moreover, the partner foreign university would be able to achieve growth alongside the South Korean maritime universities.

Therefore, regarding Twinning programs which train marine technicians/ship officers, it is suggested that corporations, the universities, and government-related organization form a consultative group to have a policy meeting to discuss how many students and which country's students should be targeted for such training.

The two South Korean maritime universities should attempt to abolish the obstacles to internationalization described in this study and make good use of the accelerating factors they possess to become internationally competitive. Furthermore, the universities should export their 70 years of maritime education know-how to South-East Asian countries whose shipping and shipbuilding industries are in the developing phase. In doing so, South Korea will be well placed to work together with those countries with South Korea being in the core of leadership and leading the charge to make the world's shipping and shipbuilding markets centered around Asia.

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