

## การตัดสินใจเลือกศึกษาของนักศึกษาชาวต่างชาติที่มหาวิทยาลัยเชียงใหม่ในช่วงการแพร่ระบาดของโรค COVID-19

### THE DECISIONS TO STUDY AT CHIANG MAI UNIVERSITY OF OVERSEAS STUDENTS DURING THE OUTBREAK OF COVID-19

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Received: January 16, 2024; Revised: March 26, 2024; Accepted: April 20, 2024

#### บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อตรวจสอบปัจจัยส่วนประสมทางการตลาดที่ส่งผลต่อการตัดสินใจเลือกมาศึกษาที่มหาวิทยาลัยเชียงใหม่ของนักศึกษาชาวต่างชาติในช่วงการแพร่ระบาดของโรค COVID-19 โดยใช้แบบสอบถามออนไลน์เป็นเครื่องมือสำหรับการเก็บข้อมูล กลุ่มตัวอย่างเป็นนักศึกษาชาวต่างชาติที่ลงทะเบียนเรียนในปีการศึกษา 2564 รวมทั้งสิ้น 236 คน ข้อมูลที่ได้ถูกนำมาวิเคราะห์ด้วยวิธีสถิติเชิงพรรณนาและสถิติเชิงอนุมาน ผลการศึกษาพบว่า มีปัจจัยซึ่งกลุ่มตัวอย่างที่ลงทะเบียนเรียนในช่วงก่อนการแพร่ระบาดของโรค COVID-19 และกลุ่มตัวอย่างที่ลงทะเบียนเรียนในช่วงการแพร่ระบาดของโรค COVID-19 ให้ความสำคัญด้านส่วนประสมทางการตลาดแตกต่างกันอย่างมีนัยสำคัญ ซึ่งมหาวิทยาลัยเชียงใหม่สามารถพัฒนาปัจจัยเหล่านั้นให้เข้มแข็งขึ้นได้ เพื่อดึงดูดนักศึกษาชาวต่างชาติให้เข้ามาศึกษามากยิ่งขึ้น ได้แก่ กระบวนการที่มีความหลากหลาย ทันสมัยและตรงกับความต้องการ ทุนการศึกษาสำหรับนักศึกษาชาวต่างชาติ ความเป็นกันเองและเข้าถึงได้ของอาจารย์ ช่องทางการสมัครเข้าศึกษาที่มีความหลากหลายและการสอบเข้าที่เหมาะสม ตลอดจนการพัฒนามหาวิทยาลัยให้เป็นต้นแบบการเรียนรู้และการใช้ชีวิตที่สมดุลบนแนวทาง CMU Smart Campus ภายใต้ New Normal

**คำสำคัญ:** การศึกษาระดับอุดมศึกษา, โรคโควิด-19, นักศึกษาชาวต่างชาติ, ปัจจัยด้านส่วนประสมทางการตลาด 7Ps

## ABSTRACT

This research aimed at examining the effects of various marketing-mix factors on the decisions of overseas students to select to study at Chiang Mai University during the COVID-19 pandemic going-on period compared with the normality period. It used an online questionnaire as a tool to collect data and information, for analysis by descriptive and inferential statistics, from 236 samples of overseas students that registered for enrollment in classes/courses at CMU in the 2021 academic year. The investigation results indicate there is a significant statistical difference between the importance-ranking of various deciding marketing mix factors by overseas students that registered for study during the pre-COVID-19 pandemic time and that by overseas students who registered for study during the COVID-19 pandemic period. Consequently, some changes and attempts can be made to strengthen the high-ranking marketing mix elements found in this study to attract more overseas students to study at CMU. The suggested pursuits include offering diverse, cutting-edge, and demand-responsive courses/study programs; providing scholarships to overseas students; backing the professors to be amiable and approachable in the view of foreign students; devising appropriate and alternative types of admission to facilitate international student recruitment; and development to maintain the study-life balanced environment on campus under the concept of CMU Smart Campus as a New Normal.

**Keywords:** Higher Education; COVID-19; Student; 7P's Marketing Mix

## Introduction

The internationalization of the educational system, rising primarily from the driving force of globalization, is considered a key factor that has contributed to the growth of the education industry of the host countries in Europe for several decades (de Wit and Deca, 2020). Consequently, many higher education institutions in Asia jumped on the internationalized-education bandwagon to deal with the impact of globalization on education and heighten public trust in their academic qualities. These ends are considered realizable through such means as offering more international programs, setting up a foreign affairs office, opening foreign visiting professor opportunities, and involving in student exchange programs.

Higher education fundamentally has a crucial role in preparing and developing young people of a country to be ready for entering the world of employment and the high-quality and skillful human resources produced by colleges and universities are imperative for improving the country's economic competitiveness. As addressed earlier, however, many higher education institutions have become either partly or entirely internationalized. Chiang Mai University is also one among these. CMU is the first regional and provincial university of Thailand, established in the North and the Province of Chiang Mai with a founding objective declared in 1964 to be a center of academic and high-occupational knowledge to benefit the region and the country as a whole. Over time, and as a complex adaptive system, Chiang Mai University has recently had an emphasis on ensuring that the quality and standards of its curriculum provision and academic services will be internationally recognized and visible to a greater extent. Its achievements are illustrated graphically in Figure 1. It can be seen that the number of overseas students at

CMU between 2016 - 2019 was quite stable. However, this number has increased remarkably after a few years of internationalization efforts aimed at attracting international students. These initiatives include increasing the number and diversity of exchange programs to cover every corner of the world, expediting the establishment of cooperation with overseas universities, and offering scholarships to overseas students, both with and without post-graduation obligations. As a result, CMU has seen a significant rise in the total number of international students since the 2020 academic year. In the 2021 academic year, CMU had 467 overseas students with 174, 187, and 106 enrolling in the bachelor's, master's, and Ph.D. degree programs respectively.

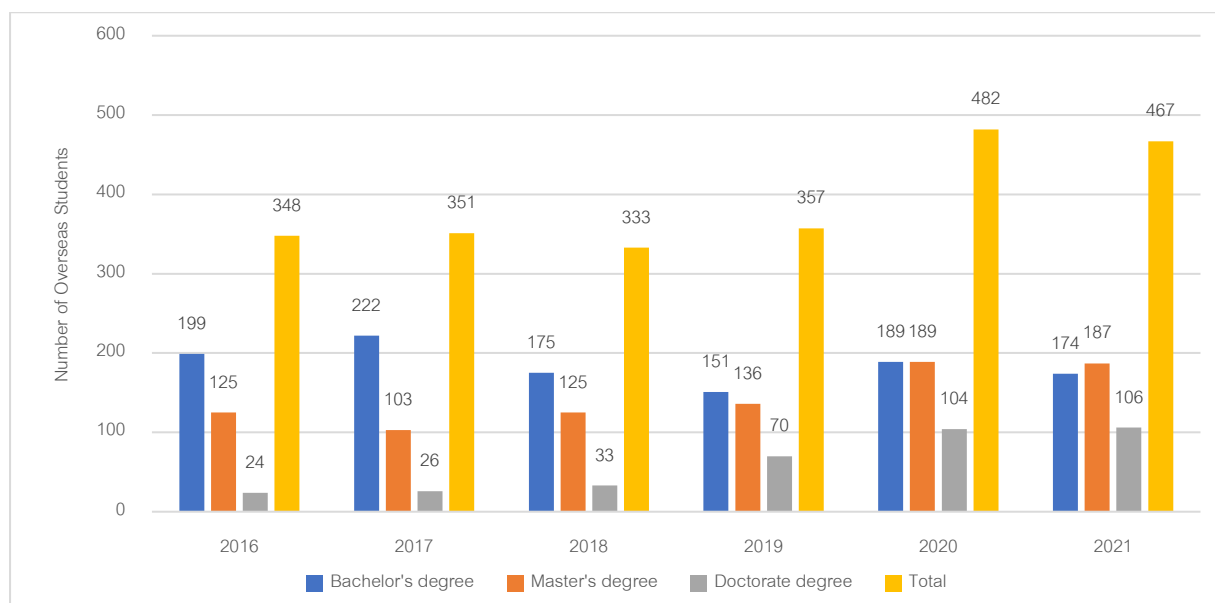


Figure 1 Number of Overseas Students at Chiang Mai University during 2016 - 2021

However, the outbreak of Coronavirus Disease 2019 (COVID-19) first taking place at the 2019 year-end has seriously disrupted and hampered the efforts of not only Chiang Mai University but also other higher education institutions worldwide in attracting potential foreign students to apply for admission. Meanwhile, lockdowns and other measures include school or campus closures to control the spread of the virus, which necessitated schools and universities to change their educational process from the normal on-campus teaching/learning and examination sessions to the remote and online system, which had hard hit international students considering their safety in daily life, legal status (visa type), and the value of the degree they get from practically entirely online education in the host country with a meager association in person with other students and faculty members (also see Schleicher, 2020). Such COVID-19-related effects make us envisage a more intense competition among international universities in Asia and all over the world because the offering and management of online degree programs allow foreign students to get and complete their education without the need to travel to the host country of the university. Given the tendency of growing competition in the global international education industry, it becomes interesting to examine the strategies or practices that high education institutions used to build their status as international universities. Consequently, without understanding the factors influencing international

students' decisions, CMU may struggle to attract and retain this valuable demographic, which is why the present study chose Chiang Mai University as a case study.

As stated earlier, the issue of interest in this study is the effects of marketing mix factors on the decisions of overseas students to apply for study at Chiang Mai University during 2020-2021 which coincided with the period the COVID-19 pandemic was prevalent worldwide. It should be noted that 2021 was the first academic year CMU admitted overseas students again after temporarily not inviting applicants from other countries for admission due to the emergence of the COVID-19 pandemic. The research findings offer valuable insights for developing CMU's internationalized education policies to be more responsive to the needs of overseas students, as well as improving CMU's public relations and promotional activities to make CMU better known and more visible at the international level.

## Objective

This research aimed at investigating the effects of various marketing mix factors on the decisions of overseas students to study at CMU during the pre-COVID-19 period against the COVID-19 pandemic period to understand whether there are any differences.

## Literature Review

### Policies of Chiang Mai University

At present, Chiang Mai University still gives priority to implementing its educational development plan to attract overseas students to choose to enroll at CMU. In essence, the CMU Educational Development Plan, Phase 12 (2017 - 2021) was executed for the university to be listed higher in the QS World Ranking 2020 and Times Higher Education University Impact Ranking 2020 (THE UIR), with the use of Education Criteria for Performance Excellence: EdPEX to reinforce the attainment. However, some adjustments had to be made to the execution of the Plan, especially during the COVID-19 pandemic event. For example, faculty members must build up their capability in designing a new form or mode of instruction and adjusting the course contents, in response to the emerging New Normal lifestyle and toward complying with the CMU Excellence Development Plan and Specialized High-level Manpower Plan according to the Needs of the Country (2023 - 2027). Meanwhile, CMU's management for excellence strategy was found to contain a plan and process for reinventing the university to attract more overseas students. With an emphasis on the quality of the teaching and learning process and higher caliber of academic staff, CMU in its Reinventing University efforts has stressed the development of educational quality, the development and recruitment of university personnel to ensure that CMU's human resources have capabilities for high performance in internationalization areas, research and innovation administration, and building institutional networks. All these efforts are believed to eventually help attract a greater number of overseas applicants to study at CMU. However, we can observe from various development plans reviewed above that CMU so far has focused primarily on the capability development of academic staff and that other educational setting

environments might need to be developed or revamped to help foster CMU's realization of its goals. Thus, the findings from this research can be notably useful for CMU to consider in its deliberations on future plans.

### **7P's Marketing Mix**

Kotler (1997) has popularized the prevailing marketing mix concept that marketers and firms apply to influence the customers' response to various aspects of their product that gives the latter most satisfaction. The four conventional aspects or 4P's are Product, Price, Place, and Promotion. Goi (2009), subsequently, contended that there are other factors besides the 4P's that can affect customers' decision to buy particular goods. The other three Ps are People, Physical Evidence, and Process. Therefore, the present research work examined the factors influencing the decisions of overseas students to choose to study at CMU using as well the 7P's marketing mix concept. The 7P's in this investigation is defined as follows.

- 1) Product is the image factor that answers the need of students in terms of the knowledge they get from the university; and, thus, the image in this case means the quality of CMU and curriculum, the quality of educational management, etc. in students' perception.
- 2) Price means the cost factor considering the amount of money an overseas student pays to CMU for tuition and fees and services, the tuition and fees payment process, the tuition and fees installment/delayed payment request and approval process, the scholarship granted, etc.
- 3) Place is the location factor which also encompasses ease of commuting and travel, and on-campus safety and security.
- 4) Promotion comprises various activities and media arranged to build a positive attitude of overseas students toward studying at CMU; for example, the provision of information about study programs and services.
- 5) People refers to CMU personnel encompassing the administrative, academic, and supporting staff members.
- 6) Process is the service factor comprising the efficiency in service delivery from CMU to overseas students and the accessibility of overseas students to various educational facilities including electronic media.
- 7) Physical Evidence means the physical environment surrounding overseas students at CMU in their daily life including buildings, facilities, and on- and off-campus conditions.

### **The decision to study at higher education in Thailand**

In the past, before the outbreak of COVID-19, several scholars had already conducted research on factors determining students' decision to enroll in certain higher educational institutions in Thailand, mostly related to Thai students. Nuankaew & Nuankaew (2016), for example, involved individuals with diverse backgrounds as study samples including teachers, school students, college/university students, government workers, government officials, and other educational personnel to explore the decision factors of the samples to study for a bachelor's

degree program in Mobile Computing Technology at University of Phayao. They found the main deciding factors to be the efficiency of the study program, the quality of academic staff, and the news and information that the samples received. More recently, Sukthaworn & Ungkanawin (2021) examined the effects of image, curriculum, and personal factors on students' decisions to study for a B.S. degree at the Faculty of Administration and Management, King Mongkut's Institute of Technology, in the 2018 academic year. From information collected using a questionnaire and analytical results by descriptive statistics, they found the image factor to be the most important deciding factor followed by the curriculum and the personal factors in descending order. The image factor is most important due to the attributes that this Faculty is under a long-time well-reputed state university, that KMT provides also a direct admission system for entrance opportunities, and that KMT offers educational programs that meet the needs of students. Meanwhile, Ammawongchit et al. (2022) investigated the demographic characteristics and opinions of high school students regarding the factors determining their decisions to get admission of 2021 into the undergraduate program at the College of Social Communication Innovation, Srinakharinwirot University. The factors investigated are college image, public relations, curriculum, physical environment, tuition and fees, admission system, instructors, reputation and value, and educational guidance. The study findings reveal the most important factor to be curriculum followed by reputation and value, college image, instructors, admission system, public relations, educational guidance, and tuition and fees, in descending order.

The studies undertaken during the context of the COVID-19 outbreak and pandemic, of course, revealed the different responses of potential students, particularly foreign students to study in Thailand. Mok et al., (2021) detected the reduced mobility of overseas students during the COVID-19 pandemic due to many travel restrictions, campus closure, and parents' concerns about their children's safety and health problems. Yıldırım et al. (2021) studied the relationship between the COVID-19 pandemic and international university students' mobility and found that the lockdown measure caused overseas students in international universities tremendous problems because online education could not give them a real campus life in the host country and collaboration between universities and business sector declined from the previous normal level. Thus, the COVID-19 containment measures and the resulting disruptions to educational and economic activities eventually discouraged the mobility of overseas students to study outside their home countries. Nevertheless, new technologies – developed and available during the COVID-19 pandemic period not only have enabled students in developing countries to get online and distance education more easily but also could help reduce the unequal access to tertiary education among people in different socio-economic groups and geographic locations (Tadesse and Muluye, 2020). Khienchanaj (2021) investigated the factors affecting students' decision to study online-based distance education provided by a private university during the spreading phase of the COVID-19 pandemic. This investigation considered two categories of factors which are personal factors including gender, age, education, and occupation; and deciding factors covering university image, university marketing, and reference groups like people the student knows and close relatives from whom the student gets advice and influence.

From the review of the literature above, we found that most research works on higher education and students are confined to students' decisions to enroll at certain universities during the time of normality. Specifically, there found no study conducted on the effects of COVID-19 during the period of a rapid and extensive spread of the disease on higher education in Thailand. In the face of such a threatening event and whether or not to opt for campus closure, different universities took different management measures and some of which had never been used before such as online courses and examination systems and requirements for body temperature checks. Various COVID-19 caused situations could affect not only the daily life of students but also students' consideration about their studies in the future; and all these likelihoods can shape the decision of students, particularly those from other countries, to apply for admission into a specific international study program at a Thai university.

The decision for overseas students to enroll at CMU is an important dependent variable examined in this study. The literature suggests several potential independent variables that may influence this decision, including CMU's institutional policies and development plans aimed at attracting more international students. Additionally, the 7P's marketing mix concept is utilized as a lens to analyze the factors related to CMU's marketing efforts and educational environment that could influence prospective overseas students' enrollment choices. Examining CMU's strategies and its strengths and weaknesses across the 7P's is likely to provide insights into which marketing mix elements are most dominant in driving international student recruitment. It also highlights how the COVID-19 pandemic created disruptions that altered the higher education landscape, suggesting the pandemic context may have been an important contributing factor in overseas students' decision-making processes during this period.

## Hypothesis

This research distinguished study samples into two groups. The first group included 99 overseas students with a student ID Code of 2017 – 2019 (enrolled before the COVID-19 pandemic) and the second group comprised 137 overseas students with a student ID Code of 2020 – 2021 (enrolled during the COVID-19 pandemic), giving a total number of samples of 236. The study hypothesis is that there is a difference between overseas students with student ID Code of 2017 - 2019 and those with student ID Code of 2020 - 2021 in weights and ranking of various marketing mix factors that influence their decision to study at CMU. Specifically, the null hypothesis and the alternative hypothesis are as follows.

H0: Overseas students with student ID Code of 2017 - 2019 and those with student ID Code of 2020 - 2021 are not different in importance ranking of various marketing mix factors.

H1: Overseas students with student ID Code of 2017 - 2019 and those with student ID Code of 2020 - 2021 are different in importance ranking of various marketing mix factors.

## Methodology

### Population and Sample

The population and samples in this study are those overseas students registered for classes and status at Chiang Mai University in the 2021 academic year. The sample size was calculated using the formula of Yamane (1967) with a 90% confidence level. Therefore, out of the total 1,990 overseas students, at least 96 are needed as study samples to be identified by the Simple Random Sampling technique to ensure that each individual in the population set has the same probability of being selected. In the beginning, online questionnaires were sent to everyone in the population via the Faculty or College in which he/she studied. In the cases of no response, the online questionnaires were sent again and directly to the study samples as they happened to take classes online in their home country. Each overseas student sample was to complete one questionnaire. In total, 236 overseas students completed the questionnaire for this study.

### Data Collection

The questionnaire is in both English and Chinese languages because the majority of overseas student samples are Chinese. The question items in the questionnaire are related to the 7P's marketing mix comprising the sets involving curriculum (Product), costs of education (Price), the location factor (Place), public relations (Promotion), personnel (People), the service factor (Process), and the physical environment or image (Physical Evidence); as well as the information concerning goal, belief, and value.

### Likert's scale analysis

Each question item is to be answered by respondents marking the appropriate scale from the 5-point Likert's rating scale. The scores for each question item are calculated into Mean and Standard Deviation: S.D. for ranking and evaluation. A 5-point Likert Scale method can be simply understood from the table below.

Table 1 Interpretation of the 5-Point Likert's Rating Scale Measurements

Respondent's choice		Interpretation	
Score	Response category	Average score/range	Evaluation
5	Highest	4.21 - 5.00	Extremely important
4	High	3.41 - 4.20	Very important
3	Moderate	2.61 - 3.40	Moderately important
2	Low	1.81 - 2.60	Slightly important
1	Lowest	1.00 - 1.80	Not important at all

*Note.* The average scores are grouped into 5 classes with the  $(5-1)/5 = 0.8$  class-interval width.



The Likert's scale analysis was performed for two groups of overseas students namely the group of those with student ID Code of 2017 - 2019 indicating their first enrolment in 2017, 2018, and 2019 academic year respectively (pre-COVID-19), and the other group of those with study ID Code of 2020 - 2021 corresponding to their first enrolment in 2020 and 2021 academic year respectively (during the COVID-19). The purpose is to determine whether similarity or difference exists between the two groups using Independent Sample Test.

## Results

The evaluation results, as presented in Table 2 below, were used for hypothesis testing whether or not the weights and importance ranking of 7P's marketing mix factors differed between the two groups of overseas students. It was found that the null hypothesis, H<sub>0</sub>, was accepted for most factors' attributes or constituents. This means overseas students with first enrollment in the 2017-2019 academic year and those with first enrollment in the 2020-2021 academic year are not different in viewing the importance of the constituents in each marketing mix factor. This might imply the spread of COVID-19 did not have much influence on overseas students' decision to study at CMU. The attribute with the highest scores was CMU's reputation (Attribute 7-1, included under Physical Evidence), with mean scores of 4.34 and 4.47 (extremely important) from the 2017 – 2019 and 2020 – 2021 student groups, respectively. This was followed by the academic rank of lecturers (Attribute 5-2, included under People), with respective mean scores of 4.39 and 4.41 (extremely important). The lowest scoring attribute was student accommodation (Attribute 6-8, included under Process) with respective mean scores of 3.18 and 3.38 (moderately important).

Meanwhile, the null hypothesis was rejected related to a particular attribute(s) of a marketing mix factor. This indicates that overseas students with first enrolment before the COVID-19 outbreak and those with first enrolment during the COVID-19 pandemic placed different degrees of importance on the items rejected by the H<sub>0</sub> testing. The difference was found for the following attribute(s) of its (their) corresponding marketing mix factor.

- 1) Product. Attribute 1-7, in that there is a wide variety of courses that are up-to-date, modern, and meet the needs of the student, received a higher mean score at 4.26 from overseas students with student ID Code of 2020 - 2021 interpreted as extremely important with the p-value of 0.029 at the 95% statistical significance level, compared to the lower mean score interpreted as very important from the otherwise group.
- 2) Price. Attribute 2-3, in that there are scholarships offered to foreign students, received a higher mean score at 3.98 from overseas students with student ID Code of 2020 - 2021 which is interpreted as very important but is statistically different from the result from the otherwise group with the p-value of 0.007.
- 3) People. Attribute 5-5, in that the lecturers are friendly, willing to listen to students' problems, able to give advice, and solve problems well, received a higher mean score at 4.46 from overseas students with student ID Code of 2020 - 2021 which is interpreted as very important but which is statistically different from the result from the otherwise group with the p-value of 0.048.

- 4) Process. Attribute 6-1, in that there is a wide variety of admission channels such as by post, via the internet, in person, etc., got a higher mean score at 4.43 from overseas students with student ID Code of 2020 - 2021, which is interpreted as extremely very important but which is statistically different from the result from the otherwise group with the p-value of 0.022. Attribute 6-3, in that the admission processes are appropriate, received a higher mean score at 4.36 from overseas students with student ID Code of 2020 - 2021, which is interpreted as extremely important but is statistically different from the result from the otherwise group with the p-value of 0.049.
- 5) Physical Evidence. Attribute 7-11, in that the university will evolve into a role model for learning and living a balanced life based on the CMU Smart Campus concept under the New Normal environment, got a higher mean score of 4.20 from overseas students with student ID Code of 2020 – 2021 which is interpreted as extremely important but which is statistically different from the result from the otherwise group with the p-value of 0.033.

Table 2 Scores and Levels of Importance of 7P's Marketing Mix Factors in the Decision to Study at CMU, Comparison Between Overseas Students with Student ID code of 2017 - 2019 and Those with Student ID Code of 2020 - 2021.

7Ps marketing mix factors	Student ID code of 2017 - 2019			Student ID Code of 2020 - 2021			p-value
	N (Persons)	Mean (Interpretation)	S.D.	N (Persons)	Mean (Interpretation)	S.D.	
1. Product							
1-1	99	4.15 (high)	0.78	137	4.24 (extremely important)	0.65	0.215
1-2	99	3.97 (very important)	0.94	137	3.95 (very important)	0.80	0.845
1-3	99	3.79 (very important)	0.95	137	3.93 (very important)	0.83	0.276
1-4	99	3.98 (very important)	0.89	137	3.93 (very important)	0.91	0.925
1-5	99	4.02 (very important)	0.82	137	4.15 (very important)	0.77	0.300
1-6	99	3.95 (very important)	0.89	137	4.06 (very important)	0.76	0.210
1-7	99	4.06 (very important)	0.76	137	4.26 (extremely important)	0.66	0.029*

7Ps marketing mix factors	Student ID code of 2017 - 2019			Student ID Code of 2020 - 2021			p-value
	N (Persons)	Mean (Interpretation)	S.D.	N (Persons)	Mean (Interpretation)	S.D.	
modern, and meet the needs of the student.							
1-8 The programs aim to produce graduates with high morality, quality, and global citizenship skills.	99	4.12 (very important)	0.81	137	4.32 (very important)	0.69	0.054
<b>2. Price</b>							
2-1 The tuition fees are reasonable and affordable.	99	3.88 (very important)	0.88	137	3.96 (very important)	0.72	0.276
2-2 The cost of living is reasonable and not too high.	99	3.83 (very important)	0.85	137	3.96 (very important)	0.68	0.116
2-3 There are scholarships offered to foreign students.	99	3.58 (very important)	1.02	137	3.98 (very important)	0.90	0.007*
2-4 Fees and charges throughout the program are not too expensive compared to other universities in Thailand.	99	3.80 (very important)	0.99	137	3.89 (very important)	0.75	0.206
2-5 Fees and charges throughout the program are not too expensive compared to the universities in my home country.	99	3.24 (very important)	1.07	137	3.47 (very important)	0.94	0.051
<b>3. Place</b>							
3-1 Areas and an international atmosphere that are suitable for learning are provided	99	4.19 (very important)	0.71	137	4.22 (extremely important)	0.69	0.939
3-2 There are enough modern classrooms, conference rooms, and laboratories provided for the students.	99	4.02 (very important)	0.80	137	4.01 (very important)	0.77	0.931
3-3 Modern equipment and teaching materials are provided.	99	4.02 (very important)	0.79	137	4.13 (very important)	0.69	0.190
3-4 The place is safe and has good environmental management.	99	4.22 (extremely important)	0.76	137	4.23 (extremely important)	0.70	0.913
3-5 The place is well located and close to residences and service areas such as airports, hospitals, and police stations.	99	4.23 (extremely important)	0.78	137	4.17 (very important)	0.75	0.590
3-6 The campus location is easily accessible and not far from my home country.	99	4.14 (very important)	0.89	137	4.16 (very important)	0.96	0.964
<b>4. Promotion</b>							
4-1 There is a public relations center based in foreign countries.	99	3.85 (very important)	0.97	137	3.88 (very important)	0.79	0.603
4-2 There is overseas education counseling.	99	3.56 (very important)	0.95	137	3.75 (very important)	0.89	0.072
4-3 Important educational information and press release	99	4.08 (very important)	0.79	137	4.10 (very important)	0.72	0.914

7Ps marketing mix factors	Student ID code of 2017 - 2019			Student ID Code of 2020 - 2021			p-value
	N (Persons)	Mean (Interpretation)	S.D.	N (Persons)	Mean (Interpretation)	S.D.	
are regularly shared on various online platforms and through various social media channels such as website, Facebook, Twitter, etc.							
4-4 There are joint activities with other educational institutions in foreign countries.	99	3.85 (very important)	0.86	137	3.92 (very important)	0.87	0.777
4-5 Internationally recognized academic exhibitions/conferences are held.	99	3.87 (very important)	0.87	137	4.01 (very important)	0.81	0.340
4-6 There are roadshow events or public relations activities with other educational institutions in foreign countries.	99	3.89 (very important)	0.82	137	3.84 (very important)	0.86	0.543
5. People							
5-1 The university administrators are capable and recognized for their great vision.	99	4.21 (extremely important)	0.71	137	4.20 (very important)	0.79	0.944
5-2 The lecturers have a high academic rank.	99	4.39 (extremely important)	0.72	137	4.41 (extremely important)	0.57	0.651
5-3 The lecturers have high experience in teaching and research.	99	4.25 (extremely important)	0.77	137	4.37 (extremely important)	0.62	0.153
5-4 The lecturers are renowned academicians, and their academic achievements are internationally recognized.	99	4.16 (very important)	0.72	137	4.20 (very important)	0.67	0.481
5-5 The lecturers are friendly, willing to listen to student's problems, and able to give good advice and solve problems well.	99	4.29 (extremely important)	0.81	137	4.46 (extremely important)	0.62	0.048*
5-6 The staff have good interpersonal relationships and a good understanding of the service system	99	4.27 (extremely important)	0.75	137	4.42 (extremely important)	0.69	0.127
6. Process							
6-1 There is a wide variety of admission channels such as by post, via the internet and in person, etc.	99	4.22 (extremely important)	0.80	137	4.43 (extremely important)	0.60	0.022*
6-2 The service providing system through electronic media is convenient and fast such as admission system, student registration, tuition fee payment, and course enrollment, etc.	99	4.22 (extremely important)	0.76	137	4.34 (extremely important)	0.75	0.223

7Ps marketing mix factors	Student ID code of 2017 - 2019			Student ID Code of 2020 - 2021			p-value
	N (Persons)	Mean (Interpretation)	S.D.	N (Persons)	Mean (Interpretation)	S.D.	
6-3 Admission processes are appropriate and equitable.	99	4.16 (very important)	0.75	137	4.36 (extremely important)	0.63	0.049*
6-4 Modern IT systems are utilized for measurement and evaluation.	99	4.15 (very important)	0.72	137	4.30 (extremely important)	0.67	0.084
6-5 Tools, equipment, and technological media are sufficiently provided for students.	99	4.12 (very important)	0.77	137	4.25 (extremely important)	0.70	0.264
6-6 Co-curricular activities are arranged appropriately and transparently.	99	4.00 (very important)	0.89	137	4.01 (very important)	0.84	0.914
6-7 Education Criteria for Performance Excellence: EdPEX is utilized as a tool for university development.	99	3.98 (very important)	0.79	137	4.12 (very important)	0.70	0.125
6-8 Accommodation is provided for students during their studies.	99	3.18 (moderately important)	1.27	137	3.38 (moderately important)	1.20	0.250
6-9 There are facilitations for visa requests.	99	4.09 (very important)	0.90	137	4.25 (extremely important)	0.78	0.099
7. Physical Evidence							
7-1 CMU is a public university with a high reputation and is recognized for its quality and educational standards.	99	4.34 (extremely important)	0.73	137	4.47 (extremely important)	0.60	0.130
7-2 It is ranked in the QS World University Ranking and Time Higher Education University Impact Ranking	99	4.07 (very important)	0.81	137	4.22 (extremely important)	0.70	0.202
7-3 It has an outstanding international academic, research, and innovation reputation.	99	4.03 (very important)	0.78	137	4.18 (very important)	0.67	0.148
7-4 It has advanced technology and fields of study that are not available in my home country.	99	3.61 (very important)	0.99	137	3.69 (very important)	1.00	0.531
7-5 There are student exchange programs with other overseas educational institutions.	99	4.01 (very important)	0.82	137	4.04 (very important)	0.76	0.703
7-6 The domestic people's attitude towards international students	99	4.08 (very important)	0.76	137	4.18 (very important)	0.76	0.339
7-7 There are famous and notable alumni.	99	3.89 (very important)	0.84	137	3.99 (very important)	0.75	0.420
7-8 Transform Learning Platforms/Models that promote future skills, support people of all ages, and enhance sustainable development.	99	4.04 (very important)	0.76	137	4.18 (very important)	0.66	0.086
7-9 Promote the integration of various sciences to create	99	4.04 (very important)	0.75	137	4.10 (very important)	0.68	0.577

7Ps marketing mix factors	Student ID code of 2017 - 2019			Student ID Code of 2020 - 2021			p-value
	N (Persons)	Mean (Interpretation)	S.D.	N (Persons)	Mean (Interpretation)	S.D.	
outstanding research initiatives, and to aim for and enhance sustainable development through a CMU BCG Platform.							
7-10 Promote the transfer of knowledge and outstanding works as well as achievements to restore the economy and the environment, and raise the standard of living of communities and the country.	99	4.03 (very important)	0.77	137	4.15 (very important)	0.68	0.210
7-11 Evolve the university as a role model for learning and living a balanced life based on CMU Smart Campus under the New Normal environment.	99	4.04 (very important)	0.85	137	4.20 (very important)	0.66	0.033*
7-12 Encourage the organizations to utilize Sandbox as a platform to support the creation of new products, services, and job management to reach and achieve the university's vision.	99	3.90 (very important)	0.85	137	4.07 (very important)	0.69	0.054
7-13 Establish a management system aiming for Performance Excellence	99	4.03 (very important)	0.76	137	4.13 (very important)	0.68	0.177
7-14 Adjust organizational structure and administration to be quick and timely for any changes.	99	4.03 (very important)	0.77	137	4.11 (very important)	0.72	0.271
7-15 Develop the staff/personnel for a purpose of being a learning organization.	99	4.14 (very important)	0.74	137	4.18 (very important)	0.70	0.603

Note. \* indicates the rejection of  $H_0$  at the 95% statistical significance level.

## Discussion

This research aimed at examining the weights and ranking of 7P's marketing mix factors in influencing the decision of overseas students to choose to study at Chiang Mai University (CMU) during the pre-COVID-19 period with that during the COVID-19 pandemic period. The findings reveal, in essence, no statistically significant difference between the two groups of overseas students in their evaluation of the importance of various 7Ps marketing mix factors, specifically their attributes or constituents. Therefore, it can be concluded that the spread of the COVID-19 pandemic does not affect overseas students' decision to study at CMU. Based on the findings, significant factors influencing overseas student enrolment include the academic ranking of CMU's lecturers and its reputation for quality and educational standards, as both of these factors received the highest mean scores, interpreted as extremely important to their decision.

However, the two groups of student samples are observed to consider differently the importance of particular attribute(s) of certain marketing mix factors. Our observation aligns with the finding of Khiengchanaj (2021) which shows that the decision to study at any internationalized university during the presence of COVID-19 pandemic is not so problematic to make as far as the potential student has already adapted himself/herself to living a modern lifestyle and using modern technology. However, this seems to contradict the broader trend in higher education, where the pandemic forced institutions to rapidly transform with online learning and hybrid models (Yıldırım et al., 2021). Furthermore, a study by Handayani et al. (2021), which focused on private universities in Indonesia, revealed that online promotion and location played a more significant role in student decision-making during the pandemic. This aligns with the notion that the pandemic has introduced new factors, such as health and safety concerns, which may supersede traditional marketing strategies (Mok et al., 2021). It implies that the impact of pandemic on student decision-making might vary depending on the university and its marketing strategies.

## Suggestions

This study faced difficulty collecting the completed and returned questionnaires to meet the sample size requirement. In future studies, researchers should get their questionnaire administration to take place either before the start of classes in the first semester, in the first week of classroom sessions, or on the day of new student orientation sessions. This recommended arrangement can enable researchers to collect the returned questionnaires from students at the number needed or sufficient for the investigation and can prevent new overseas students from exposure to certain factors that might affect their attitudes and decision to study at CMU. A shortcoming of the present study is that the questionnaire was administered to get the overseas students' past assessment after they had already studied at CMU for quite a lengthy time. Besides, future studies should consider other factors that might influence the decisions of overseas students such as their demographic characteristics, career goal, beliefs, and values.

Although the spread of COVID-19 does not seem to have influenced the decisions of overseas students to study at CMU, a statistically significant difference was detected in the importance of specific considerations between students who enrolled before the outbreak of COVID-19 and those who enrolled during the pandemic. Students enrolling during the pandemic placed more importance on several factors:

- the product factor, for having a variety of up-to-date courses that meet students' needs;
- the price factor, for having scholarships available to foreign students;
- the people factor, for having lecturers that are friendly and able to provide useful advice;
- the process factor, for having a wide variety of admission channels and appropriate admission processes;
- and
- the physical evidence factor, for learning to live a balanced life based on CMU's Smart Campus and the New Normal environment.

Consequently, Chiang Mai University might benefit from prioritizing further enhancement of its strength and attractiveness to overseas students with regard to various components in the 7P's marketing mix factors, given that overseas students are still likely to choose to study at CMU despite significant changes to the global educational context. Furthermore, CMU should also place more emphasis on the aspects to which overseas students in this study gave a relatively higher importance weight under the context of COVID-19. These include CMU's high-quality and internationally accredited programs, its international atmosphere, admission processes, modern IT systems, tools and technological media, facilitations for visa requests, and the university ranking.

## Acknowledgments

This study was sponsored by the Office of Research Administration, Chiang Mai University (CMU) under the research project "Institutional Research for the Development of Chiang Mai University, Academic Year 2021". We hereby express our gratitude.

## References

- Alongkon Ammawongchit, Srirath Pakdeeronachit, and Noppadol Inchan (2022). Factors Affecting Admission Decision to Studying in The Bachelor Programs at College of Social Communication Innovation, Srinakharinwirot University. *Journal of Innovation and Management*, 7(1), 53-68. <https://so03.tci-thaijo.org/index.php/journalcim/article/view/258107>
- Andreas Schleicher. (2020). The Impact of Covid-19 on education insights From Education at a Glance 2020. <https://www.oecd.org/education/the-impact-of-covid-19-on-education-insights-education-at-a-glance-2020.pdf>
- Chiang Mai University. (2020). CMU Educational Development Plan, Phase 12 (2017 - 2021) (in Thai). [https://planning.oou.cmu.ac.th/wp-content/uploads/2017/10/2022-02-08\\_16-57-14\\_2020-07-10-07-56-36-12-100763.pdf](https://planning.oou.cmu.ac.th/wp-content/uploads/2017/10/2022-02-08_16-57-14_2020-07-10-07-56-36-12-100763.pdf)
- Chiang Mai University. (2021). Excellence Development Plan and Specialized High-level Manpower Plan according to the needs of the country, 2023 – 2027. <https://planning.oou.cmu.ac.th/?p=3635>
- Chai Lee Goi. (2009). A Review of marketing mix: 4P's or more?. *International journal of marketing studies*, 1(1), 2-15. <https://doi.org/10.5539/ijms.v1n1p2>
- de Wit, H., & Deca, L. (2020). Internationalization of higher education, challenges and opportunities for the next decade. *European higher education area: Challenges for a new decade*. [https://doi.org/10.1007/978-3-030-56316-5\\_1](https://doi.org/10.1007/978-3-030-56316-5_1)
- Handayani, E., Astuti, H. J., Darmawan, A., & Pratama, B. C. (2021). Emotional branding moderation on marketing mix selection of college in the Covid-19 pandemic period. *International Journal of Research in Business and Social Science*, 10(4), 375-382. <https://doi.org/10.20525/ijrbs.v10i4.1014>



Ka Ho Mok, Weiyan Xiong, Guoguo Ke, and Joyce Oi Wun Cheung. (2021). Impact of COVID-19 pandemic on international higher education and student mobility: Student perspectives from mainland China and Hong Kong. *International Journal of Educational Research*, 105, 101718.

<https://doi.org/10.1016/j.ijer.2020.101718>

Philip Kotler. (1997). *Marketing management: Analysis, planning, implementation and control*. New Jersey: Prentice Hall International.

Pratya Nuankaew, and Wongpanya Nuankaew. (2016). The Decision Factors to Study on Bachelor of Science Program in Mobile Computing Technology, University of Phayao. *Journal of Technology Management Rajabhat Maha Sarakham University*, 3(1), 67-73. <https://ph02.tci-thaijo.org/index.php/itm-journal/article/view/115139>

Registration Office Chiang Mai University. (2021). *Students Statistics Report*, Chiang Mai University (in Thai). <https://www3.reg.cmu.ac.th/mis-reg/misreport/indexb.php>

Seda Yıldırım, Seda H. Bostancı, D. Çağrı Yıldırım, Fatma Erdoğan. (2021). Rethinking mobility of international university students during COVID-19 pandemic. *Higher Education Evaluation and Development*, 15(2), 98-113. <https://doi.org/10.1108/HEED-01-2021-0014>

Srisunan Sukthaworn and Kittisak Ungkanawin. (2021). Factors Influencing the Decision to Study for A Bachelor Degree, Faculty Of Administration And Management, King Mongkut's Institute Of Technology Ladkrabang: A Case Study Of The Academic Year 2018 Admission. *Journal of Suvarnabhumi Institute of Technology (Humanities and Social Sciences)*, 7(2), 199-215. <https://so04.tci-thaijo.org/index.php/svittj/article/view/208087>

Taro Yamane. (1967). *Statistics: An introductory analysis*. New York: Harper and Row.

Tadesse, S., & Muluye, W. (2020). The impact of COVID-19 pandemic on education system in developing countries: a review. *Open Journal of Social Sciences*, 8(10), 159. <https://doi.org/10.4236/jss.2020.810011>

Tueanjai Khienchanaaj. (2021). Factors Affecting Decision To Study Distance Education System At Private University During the Epidemic Of Coronavirus Disease (COVID-19). *The Journal of Sirindhornparithat*, 22(1), 385-395. <https://so06.tci-thaijo.org/index.php/jsr/article/view/250691>