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## Impact of Perceived Internationalization of Higher Education on Student Outcomes

**Rowena C. Alcoba\***   
National University Philippines  
Lipa City, Philippines

**Waewwan La-Ongsri**   
Chiang Mai Rajabhat University  
Chiang Mai, Thailand

**Abstract.** Given the multitude of international education options available to students, academic institutions need to understand better how international students perceive their internationalization efforts and how these perceptions influence student outcomes. Employing quantitative and qualitative methods, this study investigated how student satisfaction and performance are impacted by perceived internationalization. Primary data were collected from 124 international students enrolled in a state university in Thailand using a pre-tested questionnaire. The data were assessed for validity and reliability through exploratory and confirmatory factor analyses. The predicted relationships were examined using path analysis and mediation analysis. Results indicated neutrality in students' perceptions of their international educational environment and experience. Perceived internationalization was directly related to satisfaction. However, the path modeling analysis showed a negative mediating effect of satisfaction on the relationship between perceived internationalization and performance. This finding suggests that international students may still perform well academically even in non-satisfying educational contexts. The implications for higher education institutions present opportunities to align policies, strategies, and actions toward developing a truly international learning environment that will be beneficial for students.

**Keywords:** international higher education; international students; perception of internationalization; student satisfaction; student performance

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\* Corresponding author: Rowena C. Alcoba, [rcalcoba@nu-lipa.edu.ph](mailto:rcalcoba@nu-lipa.edu.ph)

## 1. Introduction

The growing initiatives toward internationalization of higher education have significantly increased student mobility across cultures and borders. OECD (2021) reported that 5.6 million students studied abroad in 2018. Whereas traditionally, the influx of international students had been seen in primarily English-speaking countries in North America, Europe, and Australia, there has been a consistent increase in the flow and movement of students within Asia in the past ten years (UNESCO, 2022). However, the past decade has seen a surge in the movement of students within Asia (UNESCO, 2022). One significant consequence of these developments is increased diversity among students in higher education institutions (HEI). As foreign students invest heavily in their international education, financially and emotionally, they expect the host institution to drive internationalization efforts that impact students' outcomes (Daud et al., 2019). This underscores the complexity of internationalizing higher education, requiring an in-depth understanding of students' goals, motivations, and experiences (Lyken-Segosebe, 2017). A study revealed that compared to their domestic peers, inbound international students often receive less support. This demonstrates an imbalance in how institutions recognize and respond to the unique needs of this student group (Starr-Glass, 2016). This apparent lack of adequate support can hinder meeting students' specific academic and social requirements, consequently affecting their overall success and satisfaction within the institution.

Considering these findings, it is interesting to learn how international students view the internationalization initiatives of their host institution and how this affects their satisfaction and performance. Few research themes focused on the impacts to students of these internationalization efforts. (Mittelmeier et al., 2024). One concluded that the satisfaction and performance of international students are influenced by academic, cultural, social, and economic factors (Son & Cho, 2020). These findings highlight the complex interplay of factors that affect these variables, underscoring the importance of a comprehensive approach to support international students effectively. Further research on these subjects in the Asian context could assist and empower HEIs in identifying effective and innovative approaches to build stronger connections with their international students and help improve their satisfaction and performance. Hence, this study focused on determining how international students' satisfaction and performance levels are influenced by their perception of the internationalization initiatives of their host institution. The research aimed to answer the following research questions: (1) How do international students perceive the institution's internationalization efforts?; (2) How are the international students' satisfaction and performance levels influenced by how they perceive the institution's internationalization efforts?; (3) How does international students' satisfaction mediate the effect of perception on performance?; and (4) How can the educational institution further improve to manage internationalization effectively?

There are four main objectives: (1) Explore the international students' perception of the institution's internationalization efforts; (2) Investigate the link between how the international students perceive their institution's internationalization efforts and their satisfaction and performance; (3) Analyze how the students'

satisfaction mediates the relationship between their perception on internationalization and performance; and (4) Explore the areas where the educational institute can further improve to manage internationalization effectively.

## **2. Literature Review**

### **2.1 Internationalization of Higher Education**

Internationalization is the process of integrating the international dimensions across all aspects and levels of higher education, including curricula, pedagogy, research, and governance (Conceição, 2020). It is a response to the ever-increasing demands for world-class talents equipped with technical and cross-cultural skills (Thi Thu Le et al., 2023). One of the main goals of internationalization is students' social and academic integration (Bergman et al., 2023). This means that internationalization should be done holistically. Academic integration pertains to having inclusive curricula and pedagogies with multicultural content and using creative approaches in teaching and learning (Mittelmeier et al., 2024). Social integration refers to the initiatives to support and facilitate students' engagement and interaction with peers and the academic community. Integration also pertains to having culturally sensitive faculty and support personnel and effective communication channels (Ge, 2022). Increased global cooperation and partnerships for student exchange and research collaborations were also identified as critical ingredients to internationalization (Ge, 2022).

### **2.2 International Students**

UNESCO classifies international students as those who crossed territorial or national border to study outside their country of origin (UNESCO, 2022). In the Fourth Industrial Revolution era, young people have become more mobile, seeking new knowledge, technologies, training, and connections beyond their local communities and countries' borderlines (Bruhn, 2020). Their reasons for choosing to study abroad vary, including academic quality, personal growth and development, and better career prospects. The diversity of the student population in an international institution creates opportunities for meaningful exchanges of culture, new ways of thinking, and new skills, norms and values. It also presents challenges such as cultural differences, language barriers, and academic pressures (Telbis et al., 2014). Academic institutes must manage inclusion and diversity to help students adjust to their host university's new social and academic culture (Molley, 2019). A better understanding of the specific needs of this student group could help provide them with supportive environments and resources to overcome these challenges and achieve success and overall satisfaction.

### **2.3 Student Satisfaction**

Satisfaction is an emotional reaction or attitude when a person fulfilled his/her needs or desires. In higher education, student satisfaction is described as the students' disposition resulting from subjective evaluation of how well their expectations and needs are met within their academic environment (Gómez-Baya et al., 2021). It is a multifaceted concept encompassing educational experience across academic, social, and institutional dimensions. A student feels satisfied when his or her educational environment and experiences are positive and

desirable. However, unpleasurable emotions and frustrations result in dissatisfaction. The students' assessment of educational experiences, services, and facilities the institution provides continually shapes student satisfaction (Son et al., 2018). Factors such as perception, lecturers' expertise, facilities, educational support, and course structure significantly influence international students' satisfaction (Daud et al., 2019). Measuring student satisfaction provides HEIs with helpful information to become more responsive to the needs and expectations of students. Student satisfaction influences not only academic performance and overall student well-being, but as well as student retention (Wong & Chapman, 2022).

#### **2.4 Student Performance**

Student performance is a measure of academic achievement through rigorous assessment activities, including test scores, grades, class standings, and learning outcomes (Namoun & Alshantqi, 2020). Academic institutions commonly use the grade point average to measure student performance. The assessment of student performance evaluates the students' knowledge level, the effectiveness of teaching processes, and overall student satisfaction (Dhaqane & Afrah, 2016). This implies that as international students face unique challenges, it can significantly affect their academic growth opportunities. Hence, institutions cannot just accept students and expect their success without providing them with support and proper programming. Many factors can influence performance, including academic environment and services, cross-cultural interaction, student engagement and belongingness, and personal characteristics (Namoun & Alshantqi, 2020). The student's level of satisfaction with these factors can affect student achievement. Higher education institutions can impact student outcomes by developing a holistic approach and comprehensive strategies and frameworks that address these factors (Yassin et al., 2020).

#### **2.5 Theoretical Perspectives**

This study draws from Tinto's integration theory (1993) and Fredrickson's broaden-and-build theory (2004). Extensive research has explored the link between Tinto's model and student satisfaction. The theory remains influential, but its application varies across different contexts. Recent research has expanded on the original model, incorporating factors such as satisfaction with institutional support (Hadjar et al., 2022) and nationality (Merola et al., 2019). Other research underscores the importance of interactions between students and faculty, particularly within the classroom, as a key element of social integration and persistence (Dwyer, 2015)

Fredrickson's broaden-and-build theory connects student satisfaction with improved academic performance by highlighting the role of positive emotions. The feeling of happiness from positive academic experiences breeds more positive school experiences (Stiglbauer et al., 2013). Faculty support, social interactions with peers, and positive school experiences create this virtuous cycle of students' happiness and satisfaction (Telef, 2020), as well as academic achievement.

Building on these theories, this study suggests that students' satisfaction and performance are affected by their learning environment and how well they integrate into it. When students acknowledge and value their international academic experiences, it can lead to increased satisfaction and, as a result, improved performance.

### **2.6 Student Perception of Internationalization and Satisfaction**

Student integration significantly influences their perception of the learning environment and overall satisfaction. Both formal academic integration and informal social interactions can positively impact students' attitudes and values (Tinto, 1993). International students form opinions and emotions based on their experiences of integration with or alienation from their learning environment. They perceive their international learning experiences nicely when foreign language is used for teaching instruction (Chung & Choi, 2022) and there is substantial amount of intercultural and international contents in the curriculum design (Vahed & Rodriguez, 2020). Student satisfaction is formed by the availability and accessibility of institutional resources, including multilingual websites and signages, libraries with a diverse selection of international texts, student services, and orientation programs (Fit & Gologan, 2018). Organizational capabilities such as staff with cross-cultural competence, openness, and language skills are highly valued by international students (Ge, 2022). Non-academic aspects of student life are also crucial for enhancing satisfaction, such as socialization, peer interaction, and strong identification with the campus community (Mittelmeier et al., 2024). Their level of satisfaction or dissatisfaction depends on how they view their learning environment and experiences (Alcoba et al., 2024).

The study suggests the following hypothesis:

H1: The students' perception of the institution's internationalization will be positively related with the students' satisfaction.

### **2.7 Student Perception of Internationalization and Performance**

Student academic performance serves as one of the primary measures of students' knowledge and skills and a gauge of the success or failure of an educational institution (Narad & Abdullah, 2016). It also indicates students' interest and engagement in their studies (Mensink & King, 2020). Students' perception of their educational environment can significantly influence their academic outcomes. For example, Appiah et al. (2022) demonstrated that internationalization initiatives can enhance students' perceptions of their abilities, particularly in mathematics, thereby boosting academic achievement. The study of Silveira et al. (2019) of immigrant and native-born students indicated the positive effect of exposure to internationalization on performance. Although research directly exploring the connection between student perceptions of internationalization and academic performance is limited, these studies show the relationship between the two. It can be inferred from these examples that when students recognize, engage with, and appreciate their international academic experiences, their academic outcomes tend to improve.

Based on this, the study proposes the following hypothesis:

H2: The students' perception of the institution's internationalization will be positively related with the students' performance.

### **2.8 Student Satisfaction and Performance**

According to the broaden-and-build theory, the broadening of thought processes helps develop physical, intellectual, social, and psychological resources, which in turn enhances performance (Frederickson, 2004). Positive emotions, such as those generated by satisfaction, expand one's cognitive processes, awareness, and exploratory behavior (Dudasova et al., 2023). Various studies in the context of education suggest a strong link between student satisfaction and various performance indicators, including motivation, confidence, learning outcomes, and retention (Gopal et al., 2021). Improved academic achievement has been directly connected to student satisfaction in online learning environments (Kim & Kim, 2021). Internationalization initiatives like internships and work placement learning were found to positively influence student employability, with satisfaction and achievement acting as mediators (Otache & Edopkolor, 2022). Teacher leadership, another form of internationalization, is directly linked to student satisfaction and achievement (Uysal & Sarier, 2019). Even beyond the academe, empirical data showed the disparity in the performance of satisfied and dissatisfied employees, with the former outperforming the latter (Inayat & Khan, 2021). Task satisfaction has been shown to positively influence task performance (Dudasova et al., 2023).

Based on this, the research proposes the following hypothesis:

H3: The students' satisfaction will be positively related to the students' performance.

### **2.9 Student Perception of Internationalization, Satisfaction, and Performance**

Research suggests that internationalization initiatives can positively influence student outcomes, but the relationship is often complex and multifaceted. The effect of education internationalization on student outcomes is not always straightforward, often mediated by other factors. Gopal et al. (2021) found that student satisfaction is a crucial mediating variable between students' performance and their perceptions of educational benefits. As students perceive positively the international learning environment, it can significantly boost satisfaction levels and, ultimately, performance. Students are more likely to succeed when they are satisfied and find meaning in their academic experiences (Dhaqane & Afrah, 2016). Students' satisfaction with their overall educational experience and the academic services and facilities provided to them influence their performance (Son et al., 2018). Moreover, specific aspects of internationalization, such as study abroad program design (Hennings & Tanabe, 2018) and institutional support (Bégin-Caouette et al., 2023), can further affect how internationalization efforts impact student satisfaction and performance.

In line with this, the study predicts the following hypothesis:

H4: The students' satisfaction will mediate the effect of perceived internationalization on the students' academic performance.

### 3. Methods

#### 3.1 Research Design

This study utilized a multi-strategy research approach, combining quantitative and qualitative methods. The quantitative approach was employed to explore causal relationships between respondents' perceptions of the educational institution's internationalization practices and their academic experiences. The qualitative approach aimed to gather detailed insights into students' experiences, opinions, and perceptions regarding the internationalization aspects of the host institution, as well as any recommendations for improvement.

#### 3.2 Quantitative Research

##### 3.2.1 Sampling Technique

The population of 180 comprised foreign students enrolled at the college, a distinct characteristic unique to this group. The sample size was determined to be 123, calculated with 95% confidence level and 5% margin of error (confidence interval of 0.05). Considering the relatively small population size, however, the study used total population sampling to include all members in the research.

The study obtained responses from 129 students across all levels and programs. After data cleaning, six individuals who did not complete the survey or wrongly answered were removed. The sample size came up to 124 duly completed responses, which provided a good representation and placed confidence in the results.

##### 3.2.2 Survey Questionnaire

The study utilized survey questionnaires adapted from existing measurement scales, which have been validated and used in previous studies, as shown in the Appendix. The questionnaire included 37 closed-ended questions and could be completed online in approximately 15-20 minutes. Considering the heterogeneous group of respondents, the majority of whom were Chinese, the questionnaire was worded in English and Mandarin. The instrument was piloted with 28 respondents (Cronbach's alpha .92) and was modified and reworded to improve clarity and understanding.

The study used the Google survey platform for data collection. In observance of ethical research standards, student participation was voluntary, and consent was secured prior.

##### 3.2.3 Measurement Scales

Existing measurement scales, which have been validated in previous studies, were adopted. Respondents rated each item on a five-item Likert, with 1 corresponding to strong disagreement and 5 for strong agreement.

The perception of internationalization was assessed across five dimensions: academic factors (Zimitat, 2008), organizational factors (Fit & Gologan, 2018), and social factors (Spencer-Oatey & Dauber, 2019; Zimitat, 2008), which included experiences of discrimination and a sense of belonging (Glass & Westmont, 2014). These factors were included to capture various aspects of internationalization experienced by the institution.

Student satisfaction was measured using a validated scale from Liu and Liu (2004), which included three items. Student performance was evaluated based on the average GPA (Glass & Westmont, 2014) from official school records for the first semester of the 2022 academic year.

### *3.2.4 Data Analysis Methods*

Various statistical methods were employed to describe and analyze the quantitative data, enabling appropriate inferences to be drawn. The dataset was evaluated for validity and reliability through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Path analysis followed the factor analyses to examine the predicted relationships among variables. Mediation analysis tested the mediating effect of satisfaction on perceived internationalization and performance, simulating Model 5 of Hayes' 74-model template.

### **3.3 Qualitative Research**

Focus group discussions (FGDs) were held to obtain detailed insights into students' experiences, opinions, and perceptions regarding the internationalization of the host institution. FGD participants were selected using purposive sampling, with two groups consisting of ten and eight research participants in each group. The study ensured diversity of participants by selecting at least one from each nationality represented in the university enrolled in different programs and year levels. Prior to this, the select research participants had given their consent to participate voluntarily in the FGD. The discussions were guided by unstructured questions where research participants were asked about their experiences and challenges as foreign students. Written and audio recordings of the FGD were used as bases for organizing, coding, and indexing the information into parts to identify a thematic framework. The organized and coded data were interpreted and analyzed, and the themes were presented cohesively.

## **4. Results**

### **4.1 Quantitative Data Analysis**

#### *4.1.1 Demographic Characteristics of Respondents*

One hundred twenty-four responses were obtained after removing incoherent and incomplete data. As detailed in Table 1, more than half of the respondents (52%) were aged 20-22. 19% belonged to the 23-25-year-old bracket, 13% were 17-19, and 10% were 26-28. 6% of respondents were 29-43 years old, many taking a second degree in the university. 24% were freshmen students, 20% were sophomores, 22% were junior students, and 34% were in their senior year.

Most respondents were female, 53%, and 47% were male. Fifty-six students were from China, 40 were from Myanmar, nine from Bhutan, and the remaining 19 were from the other 12 countries that comprised the student population.



**Table 1: Demographic Characteristics**

Demographic Variables	Sample size (n = 124)	
	Frequency	Percentage
<b>Age</b>		
17 - 19	16	13%
20 - 22	65	52%
23 - 25	23	19%
26 - 28	12	10%
29 - 33	3	2%
36 - 40	3	2%
41 - 43	2	2%
<b>Gender</b>		
Male	58	47%
Female	66	53%
<b>Nationality</b>		
American	4	3%
Bhutanese	9	7%
Chinese	56	45%
Filipino	3	2%
Indonesian	1	1%
Japanese	1	1%
Korean	3	2%
Lao	1	1%
Malaysian	1	1%
Myanmar	40	32%
Nepalese	1	1%
Russian	1	1%
Scotland	1	1%
Taiwan	2	2%

*4.1.2 Perspectives of International Students on Institutional Internationalization Efforts*  
Appendix A shows the distribution of internationalization perceptions in absolute frequencies, mean, and standard deviation. On the variable 'Perception of internationalization,' the indicator related to the presence of foreign teachers in the program received the highest score (4.09), indicating agreement on the Likert scale. The indicators referring to support staff being welcoming (4.06) and speaking a foreign language (4.02) also suggested agreement. The mean score for discrimination experience (2.46) implies that discrimination is rare in the learning space. The rest of the indicators under this group recorded scores lower than 4, implying uncertainty or neither agreement nor disagreement.

Respondents indicated neither satisfaction nor dissatisfaction (3.70) on the host institution's internationalization level. For student performance, which pertains to students' grades, the average GPA is 3.32 and a standard deviation of 0.55. The

grading system indicates 4 as the highest grade a student can achieve and 1 as the lowest. The mean GPA of 3.32 implies a higher-than-average academic performance of most of the respondents.

The results indicated a small standard deviation, suggesting that the values were closely aligned with the mean and were, therefore, more reliable.

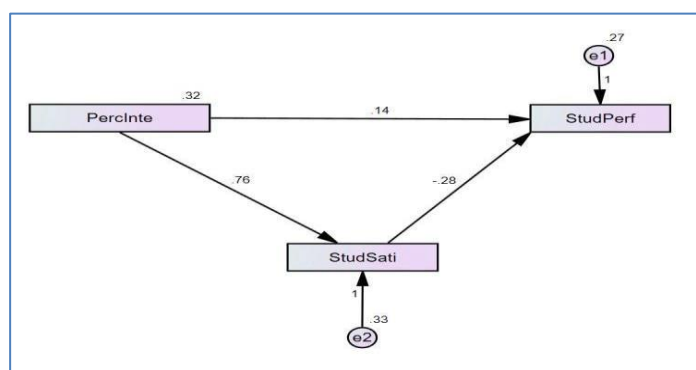
#### 4.1.3 Factor Analysis Results

The results of Bartlett's Test of Sphericity ( $p = .000$ ) and goodness of fit test, with a KMO score of 0.837, indicated that all items fell within the acceptable range for sampling adequacy. Additionally, the results of Bartlett's Test of Sphericity ( $p = 0.000$ ) confirmed the appropriateness of the factor analysis, along with the goodness-of-fit test results (Chi-square = 1724.65;  $df = 435$ ;  $p = .000$ ) were all significant. Additionally, the eigenvalues were within an acceptable range.

The CFA results indicated a good fit with  $p$ -value = 0.60, GFI = .97, CMIN/DF = .89, RMSEA = .00, RMR = .27, CFI = 1.00, and PCLOSE = 0.846. These results support the reliability and validity of the items.

#### 4.1.4 Path Analysis

The path analysis revealed that NFI, CFI, and GFI all had values of 1.000, with  $df = 0$ . Figure 1 illustrates the structural model depicting the relationships examined in the study.



**Figure 1: Structural Model**

The path model produced the following results, as presented in Table 2:

#### 4.1.5 Influence of Internationalization Perception on Student Satisfaction

PI --> SS. The findings indicated a significant relationship between the perception of internationalization and student satisfaction, with a standardized regression weight of 0.7639 ( $p < 0.000$ ). This implies that student satisfaction is likely to rise correspondingly as perceptions of internationalization increase.

The result supports Hypothesis 1, which predicted a positive relationship between the two variables.

#### 4.1.6 Influence of Internationalization Perception on Student Performance

PI --> SP. Perception of internationalization was not significantly related to student performance. The standardized regression weight was .1357 at  $p < .1964$ , implying that PI does not affect SP, thereby rejecting Hypothesis 2.

#### 4.1.7 Influence of Student Satisfaction on Performance

SS --> SP. Student satisfaction was indirectly related to student performance (standardized regression weight of -0.2771, significant at  $p < .001$ ). This implies that SP tends to decrease with an increase in SS. This finding contradicted the predicted positive relationship between the two variables, thereby rejecting Hypothesis 3.

**Table 2: Path Coefficients**

Path	Estimates	S.E.	C.R.	P
PI -----> SS	.7639	.0923	8.2779	.0000
PI -----> SP	.1357	.1044	1.2991	.1964
SS -----> SP	-.2771	.0820	-3.3803	.0010

#### 4.1.8 Mediating Role of Student Satisfaction on the Impact of Perception on Performance

The results presented in Table 3 revealed significant mediation within the path model, demonstrating that the specific indirect effect of perception of internationalization (PI) on student performance (SP) through student satisfaction (SS) was negative (-0.3565 to -0.0893, with a point estimate of -0.2117). This indicates that a decrease in PI is associated with increased SP, mediated by SS. Consequently, this finding supports the hypothesis that SS mediates the relationship between PI and SP, although the mediation effect is negative.

**Table 3: Mediation Effect**

Effect	BootSE	BootLLCI	BootULCI
PI -----> SS -----> SP	-.2117	.0698	-.3655 - -.0893

## 4.2 Qualitative Data Analysis

### 4.2.1 Students' Experiences of HEI Internationalization

The respondents were asked to share their experiences and challenges as international students. Some noted positive aspects, such as a campus environment free from cultural or religious bias, which fosters acceptance and inclusivity. Others highlighted that their studies are practical and relevant, preparing them to collaborate with individuals from diverse perspectives. Additionally, some respondents emphasized the need for improvements in internationalization, particularly regarding instructional and communication

language, curriculum and faculty diversity, and student programs and activities that enhance inclusivity.

#### 4.2.2 *Balanced environment without cultural or religious prejudice*

With students from 15 different countries on campus, some respondents felt this diversity provides valuable exposure to various cultures. They noted a sense of equality and perceived that the absence of cultural or religious bias contributes to a balanced environment that promotes mutual acceptance and understanding.

*“There is no prominent culture; anyone can be from anywhere and study here. It is a good environment because there is no bias toward one culture or one religion. This balance allows students to accept each other” (IS10).*

*“.....in my class we treat each other equally. At first I was scared, but not anymore” (IS11).*

Several focus group participants think incorporating real-life examples of global events into the lessons is useful and preparatory for their future. They noted that specific courses, like Cross-Cultural Business Management, offer valuable insights into tolerance and respect for differences, helping to prevent misunderstandings.

*“Some teachers use real-life examples of what is happening in the world. I feel that the things we learn here prepare us for the future slowly, step by step” (IS1).*

#### 4.2.3 *Language for instruction and communication*

The language barrier significantly contributed to feelings of exclusion and disengagement from the learning environment. Respondents noted that it can restrict students' ability to participate fully in academic programs and engage socially with their peers.

*“There is problem with inclusion in classroom environment because of the use of Thai in teaching” (IS7).*

*“Some of the Thai classmates, if they can speak English, they talk to us. But if not, they don't, and I understand. They will greet but won't talk more, there is no deep conversation” (IS12).*

*“There are seven nationalities in my class, so it is good opportunity to know others' cultures. It is easy to establish good relationship with the non-Thai nationals because they can speak English. However, it is challenging with Thai students because of the limitations in language on both sides” (IS8).*

#### 4.2.4 *Diversity of faculty and enrichment of curriculum*

Some respondents identified challenges with aspects of the learning process, including the textbooks used and the limited number of foreign teachers. Despite the survey showing a high score for the availability of foreign teachers, respondents expressed a desire for more. On the other hand, some respondents felt that the subjects should be made more challenging to better prepare them for the future.

*"The main subjects are okay for my level, but some subjects are too basic and not challenging. Examples are the very basic English subjects" (IS4).*

*"I feel that my English skills is not improving because the English textbooks we use are too basic" (IS7).*

*".....there should be more foreign teachers from other countries" (IS3).*

#### *4.2.5 Student programs/activities that promote inclusivity*

The respondents expressed enthusiasm in participating in extra-curricular activities for social interaction and engagement. However, many felt that there are insufficient opportunities for involvement in academic and social activities that foster inclusivity. Additionally, the lack of English-language communication platforms for informing students about programs and activities was cited as another factor limiting their participation.

*"When the university organizes activities, such as sports and music activities, or opportunities to work somewhere, or scholarships, they are designed only for Thai students" (IS1).*

*"I want to be part of the university but there are not many activities that promote inclusivity. Pre-covid, I asked my adviser and teachers what clubs were available that I could join in, but there was nothing at the moment" (IS9).*

*"I want the university to share information in English in all channels.... in groupchats, website, announcements in social media.... about the activities, scholarships, exchange programs" (IS8).*

## **5. Discussion**

The descriptive analysis of variables showed that the respondents' general perception towards internationalization was neither positive nor negative. There seemed not to be a strong positive or negative view, about the different dimensions of internationalization: academic, organizational, and social. Further insights were provided by respondents in the qualitative research. While most comments indicated the need for improvement in the different areas of internationalization, positive comments were received for a balanced campus environment, free from cultural and religious bias, and the relevance and applicability of learning in real life. Students indicated several challenges, including the extensive use of the Thai language in teaching and communication and the lack of diversity and inclusivity in curriculum, faculty, and student programs and activities. These findings do not veer away from existing studies on international higher education about the challenges and hurdles foreign students face in their learning environments (Lyken-Segosebe, 2017; Starr-Glass, 2016; Lee et al., 2019).

The results demonstrated a direct relationship between perceived internationalization and student satisfaction. This is aligned with existing studies suggesting that the positive perception of the educational benefits and experiences enhances student satisfaction (Silva, 2021). However, in contrast to common beliefs, the study found a negative relationship between student

satisfaction and performance. This contradicts the idea that greater satisfaction leads to better performance and productivity. Students' subjective satisfaction with the education benefits they receive may not necessarily correlate with their objective performance (Dinh et al., 2022). For example, students who are highly satisfied with their institution may still have poor grades. Conversely, high-performing students might not always be satisfied with their institution.

The mediation analysis results indicate that student satisfaction significantly mediates the relationship between perceived internationalization and student performance, although negatively. This implies that students may still perform well despite having a negative perception of internationalization and low satisfaction. These findings are consistent with other research suggesting that the performance levels of international students are better than their domestic peers (Lee et al., 2019), even in the face of negative perceptions and low satisfaction. However, although student dissatisfaction might not immediately affect their performance, it can lead to other adverse effects, as suggested by previous studies, including increased student attrition (Laufer & Gorup, 2018) and recruitment concerns (Ammigan, 2019).

## **6. Conclusion**

The study's key findings are four-fold: First, the results suggest that international students generally perceive their institution's internationalization efforts as neutral rather than distinctly positive or negative. Second, the students' perception of their international educational environment and experience can influence their satisfaction. The research also showed that low satisfaction does not necessarily equate to poor performance. Third, albeit negatively, student satisfaction mediates the relationship between the perception of internationalization and student performance. Fourth, the qualitative part of the study indicated that respondents are aware of and form opinions about the internationalization elements vital to them.

These findings imply that even in challenging educational contexts, international students can achieve strong academic results through behavioral adjustments. Nevertheless, it is crucial for HEIs to seek strategic improvements in various aspects of internationalization. Understanding how international students perceive their educational experience can offer valuable insights for university administrators to refine strategies, address gaps, optimize resource allocation, and enhance student outcomes. The findings suggest that there are opportunities for the HEI to enhance its strategies and actions to create a more inclusive, diverse, and integrated curriculum, faculty, student support, and programs.

## **7. Practical Implications and Recommendations**

The study provides empirical data and analysis toward a better understanding of the effects of perceived internationalization on student attitudes and outcomes. With the study findings and conclusions, HEIs need to direct more efforts toward further developing a more impactful and truly international learning environment. The study recommends that decision-makers address the areas students find challenging, including multilingualism in instruction and

communication, inclusive academic and social programming, diversified faculty and pedagogy, and an internationalized physical learning environment. Administrators should align strategies to develop intercultural competencies among faculty, support personnel, and students. Most importantly, communication channels should be kept open, and dialogue with foreign students should be maintained to address their needs and support their academic and personal development.

## 8. Limitations and directions for future research

The study's scope limits its broader applicability. The sample size was small and was focused only on the international students. Exploring a more extensive and diverse sample of local and international students could provide a comparative analysis of their perceptions, satisfaction levels, and performance. This could lead to insights for interventions that enhance intercultural interaction and positive development among all students. Additionally, investigating other aspects of internationalization, such as personal orientation, could reveal how different perspectives on internationalization affect student perceptions.

## 9. Acknowledgement

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### Note

This article is an extended paper focusing on the impact of internationalization efforts on the outcomes of foreign students using path analysis. The questionnaire and primary data were adapted from the author's previous work:

Alcoba, R. C., La-onsri, W., & La-onsri, W. (2024). Same Same or Different?: Comparing Perceived Internationalization, Experiences and Satisfaction of Domestic and International Tertiary Students in Thailand. *Community and Social Development Journal*, 25(2), 49–63. <https://doi.org/10.57260/csdj.2024.266615>

## 10. References

- Alcoba, R. C., La-onsri, W., & La-onsri, W. (2024). Same Same or Different?: Comparing Perceived Internationalization, Experiences and Satisfaction of Domestic and International Tertiary Students in Thailand. *Community and Social Development Journal*, 25(2), 49–63. <https://doi.org/10.57260/csdj.2024.266615>
- Ammigan, R. (2019). Institutional Satisfaction and Recommendation: What Really Matters to International Students? *Journal of International Students*, 9(1), 262–281. <https://doi.org/10.32674/jis.v9i1.260>
- Appiah, J. B., Korkor, S., Arthur, Y. D., & Obeng, B. A. (2022). Mathematics achievement in high schools, the role of the teacher-student relationship, students' self-efficacy, and students' perception of mathematics. *International Electronic Journal of Mathematics Education*, 17(3), em0688. <https://doi.org/10.29333/iejme/12056>
- Bégin-Caouette, O., Béland, S., Stephenson, G. K., Jones, G. A., & Metcalfe, A. S. (2024). Academic work and institutional diversity in Canada. *McGill Journal of Education / Revue Des Sciences De L'Éducation De McGill*, 85–110. <https://doi.org/10.26443/mje/rsem.v58i2.10063>
- Bergman, B., Negretti, R., Spencer-Oatey, H., & Stöhr, C. (2023). Integrating Home and International Students in HE: Academic and Social Effects of Pair Work PBL Assignments Online. *Journal of Studies in International Education*, 28(2), 240–258. <https://doi.org/10.1177/10283153221150117>

- Bruhn, E. (2020). Virtual internationalization in higher education. wbv Publikation. <https://doi.org/10.3278/6004797w>
- Chung, I., & Choi, H. (2022). Understanding International Students' Learning Experiences of English as a Medium of Instruction Courses. *International Journal of Educational Methodology*, 8(4), 639–645. <https://doi.org/10.12973/ijem.8.4.639>
- Conceição, M. C. (2020). Language policies and internationalization of higher education. *European Journal of Higher Education*, 10(3), 231–240. <https://doi.org/10.1080/21568235.2020.1778500>
- Da Silva, M. B. C., Matte, J., Bebbler, S., Libardi, B., & Fachinelli, A. C. (2021). Satisfaction and value-in-use perceived by university students from the influence of the built environment, price fairness and teaching care. *Benchmarking an International Journal*, 29(2), 365–381. <https://doi.org/10.1108/bij-12-2020-0628>
- Daud, N., Noor, A., & Amer, H. (2019). Influential Determinants of International Students' Satisfaction in Higher Education. *International Journal of Recent Technology and Engineering (IJRTE)*, 8(2S11), 589–597. <https://doi.org/10.35940/ijrte.b1091.0982s1119>
- Dhaqane, K., & Afrah, N. (2016). Satisfaction of Students and Academic Performance in Benadir University. *Journal of Education and Practice*. 7(24), 59-63. Microsoft Word - JEP-Vol.7 No.24 2016 (ed.gov)
- Dinh, T. C., Nguyen, P. B. N., Nguyen, T. T. T., Ngo, X. M. T., & Nguyen, A. T. L. (2022). The Predictors of Students' Satisfaction and Academic Achievements in Online Learning Environment in Higher Education. *Vietnam Journal of Education (Online)/Vietnam Journal of Education/Giáo Dục*, 6(1), 80–92. <https://doi.org/10.52296/vje.2022.132>
- Dudášová, L., Vaculik, M., Prochazka, J., Svitavská, P. & Patton, G. (2023). Causality of the Satisfaction-Performance Relationship: A Task Experiment. *Europe's Journal of Psychology*. 19. 48-66. <https://doi.org/10.5964/ejop.4075>
- Dwyer, T. (2015). Persistence in higher education through student-faculty interactions in the classroom of a commuter institution. *Innovations in Education and Teaching International*, 54(4), 325–334. <https://doi.org/10.1080/14703297.2015.1112297>
- Fiț, C.R., & Gologan, D. (2018). Student Perspective on the Institutional Efforts to Develop Internationalisation Within Romanian HEIs. In Curaj, A., Deca, L., Pricopie, R. (Eds.), *European Higher Education Area: The Impact of Past and Future Policies*. Springer. [https://doi.org/10.1007/978-3-319-77407-7\\_9](https://doi.org/10.1007/978-3-319-77407-7_9)
- Fredrick, B. (2004). The broaden-and-build theory of positive emotions. *Philos Trans R Soc Lond B Biol Sci*. Sep 29;359(1449):1367–78. doi: 10.1098/rstb.2004.1512. PMID: 15347528; PMCID: PMC1693418.
- Ge, Y. (2022). Internationalisation of higher education: new players in a changing scene. *Educational Research and Evaluation*, 27(3–4), 229–238. <https://doi.org/10.1080/13803611.2022.2041850>
- Glass, C., & Westmont, C. (2014). Comparative effects of belongingness on the academic success and cross-cultural interactions of domestic and international students. *International Journal of Intercultural Relations*, 38, 106-119. <https://doi.org/10.1016/j.ijintrel.2013.04.004>
- Gómez-Baya, D., Grasmeyer, A. J., López-Bermúdez, E., De Matos, M. G., & Mendoza, R. (2022). Positive Youth Development and Internet Use in a Sample of Spanish Adolescents. *Frontiers in Pediatrics*, 10. <https://doi.org/10.3389/fped.2022.842928>
- Gopal, R., Singh, V., & Aggarwal, A. (2021). Impact of online classes on the satisfaction and performance of students during the pandemic period of COVID 19. *Educ Inf Technol*. 26, 6923–6947. <https://doi.org/10.1007/s10639-021-10523-1>



- Hadjar, A., Haas, C., & Gewinner, I. (2022). Refining the Spady-Tinto approach: the roles of individual characteristics and institutional support in students' higher education dropout intentions in Luxembourg. *European Journal of Higher Education*, 13(4), 409-428. <https://doi.org/10.1080/21568235.2022.2056494>
- Hennings, M., & Tanabe, S. (2018). Study Abroad Objectives and Satisfaction of International Students in Japan. *Journal of International Students*, 8(4). <https://doi.org/10.32674/jis.v8i4.238>
- Inayat, W., & Khan, J. (2021). A Study of Job Satisfaction and Its Effect on the Performance of Employees Working in Private Sector Organizations, Peshawar. *Education Research International*. <https://doi.org/10.1155/2021/1751495>
- Kim, S., & Kim, D. (2021). Structural Relationship of Key Factors for Student Satisfaction and Achievement in Asynchronous Online Learning. *Sustainability*, 13(12), 6734. <https://doi.org/10.3390/su13126734>
- Laufer, M., & Gorup, M. (2018). The invisible others: stories of international doctoral student dropout. *Higher Education*, 78(1), 165-181. <https://doi.org/10.1007/s10734-018-0337-z>
- Lee, J., Kim, N., & Wu, Y. (2018). College readiness and engagement gaps between domestic and international students: re-envisioning educational diversity and equity for global campus. *Higher Education*, 77(3), 505-523. <https://doi.org/10.1007/s10734-018-0284-8>
- Liu, R., & Liu, R.K. (2004, May 28-Jun 2). *Satisfaction and Performance: A Reciprocal Model*. [Conference presentation]. Annual Forum of the Association for Institutional Research (AIR), Boston, MA, United States. [Liu & Liu 2004.pdf](#)
- Lyken-Segosebe, D. (2017). Acculturative Stress and Disengagement: Learning from the Adjustment Challenges faced by East Asian International Graduate Students. *International Journal of Higher Education*, 6(6), 66. <https://doi.org/10.5430/ijhe.v6n6p66>
- Mensink, P. J., & King, K. (2019). Student access of online feedback is modified by the availability of assessment marks, gender and academic performance. *British Journal of Educational Technology*, 51(1), 10-22. <https://doi.org/10.1111/bjet.12752>
- Merola, R. H., Coelen, R. J., & Hofman, W. H. A. (2019). The Role of Integration in Understanding Differences in Satisfaction Among Chinese, Indian, and South Korean International Students. *Journal of Studies in International Education*, 23(5), 535-553. <https://doi.org/10.1177/1028315319861355>
- Mittelmeier, J., Lomer, S., Al-Furqani, S., & Huang, D. (2024). Developing Meaningful Internationalisation that Impacts Students' Outcomes in Higher Education: A Scoping Review of the Literature 2011-2022. *Journal of Studies in International Education*. <https://doi.org/10.1177/10283153231222278>
- Molley, A. (2019). Lived Experiences of African Students With Microaggressions in U.S.-Based Higher Education Institutions. *Walden Dissertations and Doctoral Studies*. 8408. <https://scholarworks.waldenu.edu/dissertations/8408>
- Namoun, A., & Alshantqiti, A. (2020). Predicting Student Performance Using Data Mining and Learning Analytics Techniques: A Systematic Literature Review. *Applied Sciences*, 11(1), 237. <https://doi.org/10.3390/app11010237>
- Narad, A., & Abdullah, B. (2016). Academic Performance of Senior Secondary School Students: Influence of Parental Encouragement and School Environment. *Rupkatha Journal on Interdisciplinary Studies in Humanities*, 8(2), 12-19. <https://doi.org/10.21659/rupkatha.v8n2.02>
- OECD. (2021). *Education at a glance 2021: OECD indicators*. OECD Publishing. Accessed December 1, 2021, from <https://doi.org/10.1787/b35a14e5-en>.

- Otache, I., & Edopkolor, J. E. (2022). Work placement learning and student employability: Do student satisfaction, commitment and achievement matter? *Industry and Higher Education*, 36(6), 730–741. <https://doi.org/10.1177/09504222221091989>
- Silveira, F., Dufur, M. J., Jarvis, J. A., & Rowley, K. J. (2019). The Influence of Foreign-born Population on Immigrant and Native-born Students' Academic Achievement. *Socius Sociological Research for a Dynamic World*, 5, 237802311984525. <https://doi.org/10.1177/2378023119845252>
- Son, B., & Cho, Y. (2020). An Analysis on Factors that Affect Academic Achievement in Globalized Environment. *Journal of Industrial Distribution & Business*, 11(6), 7–17. <https://doi.org/10.13106/jidb.2020.vol11.no6.7>
- Son, H.T., Ha, N.T., & Khuyen, P.T. (2018). Measuring Students' satisfaction with higher education service – An experimental study at Thainguyen University. *International Journal of Business Marketing and Management (IJBMM)*, 2456-4559.(PDF) Measuring Students' satisfaction with higher education service - An experimental study at Thainguyen University (researchgate.net)
- Spencer-Oatey, H., & Dauber, D. (2019). Internationalisation and student diversity: how far are the opportunity benefits being perceived and exploited?. *Higher Education*. 78, 1035–1058. <https://doi.org/10.1007/s10734-019-00386-4>
- Starr-Glass, D. (2016). Repositioning Study Abroad as a Rite of Passage. In *Advances in higher education and professional development book series* (pp. 89–114). <https://doi.org/10.4018/978-1-5225-0169-5.ch004>
- Stiglbauer, B., Gnambs, T., Gamsjäger, M., & Batinic, B. (2013). The upward spiral of adolescents' positive school experiences and happiness: Investigating reciprocal effects over time. *Journal of School Psychology*, 51(2), 231–242. <https://doi.org/10.1016/j.jsp.2012.12.002>
- Telbis, N. M., Helgeson, L., & Kingsbury, C. (2014). International Students' Confidence and Academic Success. *Journal of International Students*, 4(4), 330–341. <https://doi.org/10.32674/jis.v4i4.452>
- Telef, B. B. (2020). The Relation between Happiness, School Satisfaction, and Positive Experiences at School in Secondary School Students. *TED EĞİTİM VE BİLİM*. <https://doi.org/10.15390/eb.2020.5587>
- Thi Thu Le, H., Le Minh, C., Tran, T., Thi Nghiem, T., Thanh Nguyen, H., Duc Asia: a bibliometric analysis based on Scopus database from 2003 to 2022. *Cogent Education*, 11(1). <https://doi.org/10.1080/2331186X.2024.2322892>
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: University of Chicago Press.
- UNESCO. (2022). Definition of internationally mobile students. <http://uis.unesco.org/en/glossary-term/international-or-internationally-mobile-students>
- Uysal, Ş., & Sarier, Y. (2019). Teacher Leadership Effects on Student Achievement and Student Satisfaction: A Meta Analysis on the Studies Published in Turkey and USA. *Croatian Journal of Education - Hrvatski Časopis Za Odgoj I Obrazovanje*, 21(3). <https://doi.org/10.15516/cje.v21i3.3257>
- Vahed, A., & Rodriguez, K. (2020). Enriching students' engaged learning experiences through the collaborative online international learning project. *Innovations in Education and Teaching International*, 58(5), 596–605. <https://doi.org/10.1080/14703297.2020.1792331>
- Wong, W. H., & Chapman, E. (2022). Student satisfaction and interaction in higher education. *Higher Education*, 85(5), 957–978. <https://doi.org/10.1007/s10734-022-00874-0>

- Yassin, A. A., Razak, N. A., Qasem, Y. a. M., & Mohammed, M. a. S. (2020). Intercultural Learning Challenges Affecting International Students' Sustainable Learning in Malaysian Higher Education Institutions. *Sustainability*, 12(18), 7490. <https://doi.org/10.3390/su12187490>
- Zimitat, C. (2008). Student perceptions of internationalisation of the undergraduate curriculum. In Wallace, M., & Dunn, L. (Eds.). *Teaching in Transnational Higher Education: Enhancing Learning for Offshore International Students* (13). Routledge. <https://doi.org/10.4324/9780203930625>

## Appendix A

### Distribution of internationalization perceptions in absolute and relative frequencies, mean and standard deviation (n=124)

PERCEPTION OF INTERNATIONALIZATION	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree	Mean (Standard deviation)
<b>Academic Factors</b>						
The content in my courses is often illustrated with examples from, or applied to a range of cultural and international situations.	0	2	22	91	13	3.90 (0.58)
The content of my courses is presented from a range of different cultural and international perspectives.	0	6	25	84	13	3.81 (0.68)
I would prefer to study more about international issues than focus on Thai issues.	1	9	23	58	37	3.98 (0.89)
Assessment tasks in my courses are framed in international scenarios or require me to apply course materials or concepts to different cultural or international situations.	0	4	29	86	9	3.77 (0.61)
In my courses, we have been given a good introduction on how to work effectively in cross-cultural groups.	3	7	21	82	15	3.77 (0.82)
Group work in my courses provides a real opportunity to learn about different cultures and gain different perspectives about my area of study.	0	8	22	76	22	3.87 (0.76)
The teachers in my courses appear to have a deep understanding of how my discipline or profession operates in different cultures and countries around the world.	1	9	23	81	14	3.77 (0.77)
In my courses this year I have become aware of how culture, religion and values have influenced, or shaped my area of study.	1	8	27	78	14	3.75 (0.77)
I am aware of, or have had, the opportunity to include courses on language studies, country or culture studies or study overseas as part of my degree program.	5	5	22	77	19	3.78 (0.89)
There are teachers from other countries in my programme.	2	5	6	82	33	4.09 (0.79)
Programs or courses are delivered in English. My programme prepares me to work in an international environment.	4	20	18	62	24	3.65 (1.06)
	2	6	34	66	20	3.75 (0.83)
Academic staff encourage me to contribute relevant examples from my background experience in class discussions.	3	4	28	72	21	3.81 (0.82)
<b>B. Organizational Factors</b>						
University and college websites are available in different languages.	6	12	20	70	20	3.66 (1.01)
The library has a wide range of international texts.	4	12	39	60	13	3.52 (0.92)
Signs on campus are written in different languages.	5	14	23	80	6	3.53 (0.91)

Support staff is welcoming and open to international students.	1	5	11	79	32	4.06 (0.76)
Support staff can speak other languages besides Thai.	0	4	17	78	29	4.02 (0.70)
University looks international when you walk around.	9	14	32	61	12	3.40(1.04)
<b>Social Factors</b>						
There are good opportunities to participate in volunteer activities during my course.	7	4	38	66	13	3.56 (0.91)
I have good opportunities to socialize with people on campus from many different cultural backgrounds.	5	4	18	86	15	3.8 (0.83)
There are international activities and events that help home students and those from other countries to mingle.	6	11	21	77	13	3.62 (0.96)
I have good opportunities on my course to meet people from many different cultural backgrounds.	4	2	14	84	24	3.95 (0.80)
Socialising with students from other cultures/countries is part of my daily campus life.	3	6	25	80	14	3.75 (0.81)
The social environment on campus enables me to gain an understanding of different cultural and international perspectives of the world.	2	9	28	75	14	3.70 (0.81)
<b>Sense of belongingness</b>						
I have a strong sense of affiliation with my college/university.	5	8	38	70	7	3.51 (0.86)
I have been encouraged to develop my strengths and talents at my college/university.	2	9	14	83	20	3.85 (0.82)
I feel I am a part of a close and supportive community of colleagues and friends.	1	1	30	85	11	3.82 (0.62)
I am both challenged and supported at my college/university.	3	6	22	85	12	3.77 (0.79)
<b>Discriminatory experiences</b>						
I have felt insulted or threatened based on my cultural/ethnic background at my college/university.	30	43	28	21	6	2.46 (1.71)
<b>Satisfaction</b>						
I believe that my studies at University are giving me the necessary content knowledge, skills and perspectives to work effectively in overseas countries.	3	1	22	79	19	3.89 (0.76)
If you could start over again, would you go to the same institution you are now attending?	8	9	39	54	14	3.46 (1.01)
Overall, how satisfied are you with all aspects of your university/institution experience?	2	7	22	81	12	3.76 (0.77)
<b>Student Performance</b>						
What is your average grade earned in the last semester?	0	5	28	91	0	3.32 (0.55)