

## Article

# How Chinese Students' Travel Constraints Influence Their Travel Intentions in Thailand: Moderating Role of Cross-Cultural Adaptation

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**Abstract:** This study clarified the controversial travel constraints in the tourism literature and test the moderating role of cross-cultural adaptation (CCA) on the relationship between travel constraints and travel intention. In this study, 897 questionnaires were collected from Chinese students studying in Thailand. Structural equation modeling was adopted to test the proposed model, and the moderating effect of CCA was examined via multigroup analysis. Results demonstrated that interpersonal constraints positively influenced students' travel intentions, whereas intrapersonal and structural constraints negatively affected such intentions. A significant moderating effect of CCA was also observed in the relationship between "interpersonal constraints and travel intentions" and "structural constraints and travel intentions". Theoretical and practical implications for academics and practitioners in tourism and education management are provided.

**Keywords:** Chinese students; cross-cultural adaptation; Thailand; travel constraint; travel intention



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## 1. Introduction

Travel constraints have attracted attention in the tourism literature, due to their effects on individuals' behavior [1,2]. A clearer understanding of travel constraints would help tourism and destination managers develop adequate promotional strategies for visitors [3]. Studies on travel constraints extended the original leisure constraints model (LCM) [4–6] established by [7] to explain perceived travel barriers [6,8,9]. The three basic travel constraints under LCM are intrapersonal constraints, interpersonal constraints, and structural constraints. Although some scholars confirmed that perceived constraints adversely affect individuals' travel intentions and behavior [3,10], other research yielded varied results. For example, [11] indicated that Chinese travelers' interpersonal and structural constraints cannot significantly influence visit intention; rather, disinterest adversely affects these tourists' revisit intentions. In ref [12], authors found that availability constraint (busy with other activities; lack of time; the trips I know that I cannot join) positively influences travel intention. Moreover, [13] agreed that constraints might have positive effects given the beneficial relationships with leisure activity patterns. Consequently, travel constraints pertaining to specific tourist segments and destinations might elicit disparate results.

The student travel market represents an important part of the tourism industry. Whereas researchers initially assumed that student travel would be hindered by financial constraints [14], young and student tourists recently accounted for 20% of international travelers. This tourism segment is valued at \$173 billion and totals nearly 190 million international trips per year [15]. Student travel has also grown faster than overall global travel [15]. In ref. [16], authors reported that student tourists travel more frequently than other demographic groups and share influential word of mouth with friends, family, and via social media.

Geographically, China is the leading source of international students who study abroad in Thailand—8455 Chinese students were enrolled in 2017 compared to half that in 2012 [17]. The Chinese are thus important research objects when exploring student travel in Thailand. Studies related to tourism constraints also frequently use Chinese students as samples [5,8].

For foreign students, cross-cultural adaptation (CCA) is a crucial aspect of their studies and daily lives. These students must overcome many uncertainties to adapt to a new environment in their host country. In operationalizing CCA for foreign students, [18] emphasized language competence and an integrated cultural identity as influential factors. In ref. [19], authors later focused on three aspects of Chinese students' CCA in particular, namely academic life, daily life, and intercultural communication apprehension. Current areas of interest in CCA include learning and interpersonal relationships. For instance, [20] discovered that students' cultural identity and knowledge significantly predicted social difficulty (sociocultural adjustment); [21] noted that cross-cultural differences, from a social identity perspective, led to differences in students' blog use.

Unfortunately, a lack of discussion persists around CCA in the tourism domain. A possible reason for this oversight is that student tours are frequently classified as general group tours. Moreover, travel agencies in Thailand often have no way to monitor Chinese students' cross-cultural adaptability, nor can these agencies design differentiated tourism products. Yet, CCA can nevertheless benefit tourists. In ref. [22], it was reported that, among senior Chinese travelers, learning served as a core negotiation strategy to reduce learned helplessness.

In short, scarce research explore travel constraints in the tourism literature or attempted to pinpoint the role of CCA in tourist behavior among Chinese students pursuing education in Thailand. This study thus seeks to examine the relationship between Chinese students' travel constraints and travel intentions. The moderating role of CCA on the proposed relationship is considered as well.

## 2. Literature Review

### 2.1. Travel Constraints and Intentions

Travel constraints are generally thought to inhibit individuals' participation in tourism activities [23]. Travel constraints were widely investigated since [7,24] introduced the hierarchical model of leisure constraints. As mentioned, leisure constraints include intrapersonal, interpersonal, and structural types [7]. Intrapersonal constraints refer to the psychological states, attributes, and perceived self-skills that inhibit individuals' participation in leisure activities [24,25]. These constraints are the most common of the three types [8,26]. In ref. [8] it was reported that intrapersonal constraints were pivotal to Chinese outbound tourist visits to the United States; for example, prior travel experiences and appealing destination choices could compromise these tourists' visit intentions. Conversely, [27] noted that intrapersonal constraints might not be the major reasons for nonparticipation in leisure pursuits.

Interpersonal constraints refer to social interaction or the associations among personal characteristics [8]. These constraints are particularly important for individuals with intellectual delays, who might rely on others to act upon their wishes [27]. In ref. [25], it was found that Swedish mountain downhill skiers were more interested in their friends' participation than in that of backpackers. Tourists' travel intentions might even decline when they cannot find travel partners [24,25]. A large survey of international students revealed that merely 6.3% of 3820 students traveled alone [28]; others often traveled in groups with other students from China rather than with students of other national backgrounds [28]. The present study aimed to examine changes in students' interpersonal constraints in recent years, focusing on Thailand as a destination for Chinese students.

Structural constraints are the most powerful factors limiting individuals' tourism participation. These constraints, such as destination accessibility, economic resources, and free time, greatly hinder people's travel intentions [25]. For example, ref. [8] pointed out that

Chinese outbound tourists' structural constraints often involve security concerns, distance-based constraints, monetary concerns, and difficulty acquiring a travel visa. In ref. [9] the authors identified money, time, and weather as key structural constraints preventing U.S. adults from partaking in nature-based travel. Furthermore, [28] highlighted place attributes as a major subdimension of structural constraints; such attributes include a lack of information about an activity or an area, a long travel distance to the area, and the degree of area crowding [6].

In sum, the LCM offers a promising approach to uncover how perceived constraints influence individuals' travel intentions and behavior. Constraints tend to negatively affect individuals' intentions [8,25]; however, these barriers can also have positive effects on travel behavior [13,28,29] found that a person's sensation-seeking propensity mediates the relationship between risk perceptions and travel behavior, with physical risk negatively influencing sensation seeking but enhancing one's willingness to travel. General risks (e.g., additional costs, poor weather, and natural disasters) were also found to positively influence one's willingness to travel [29]. Similarly, interpersonal constraints might boost tourists' travel intentions; when an individual is prevented from interacting with friends or family, they might pursue other desirable possibilities during a trip [13]. Studies also confirmed that structural constraints could induce positive outcomes—ref. [30] noted that individuals were willing to devote considerable time to exploring a new environment. Unfamiliarity with a certain language, climate, culture, or customs could fulfill novelty-seeking tourists' sense of thrill and adventure, as well [31]. Therefore, the following hypotheses are proposed:

**Hypotheses 1.** *Intrapersonal constraints significantly influence travel intentions among Chinese students studying in Thailand.*

**Hypotheses 2.** *Interpersonal constraints significantly influence travel intentions among Chinese students studying in Thailand.*

**Hypotheses 3.** *Structural constraints significantly influence travel intentions among Chinese students studying in Thailand.*

## 2.2. Moderating Role of CCA

CCA is a key topic related to international students due to their diverse environmental backgrounds and sociocultural and psychological states [32–34]. CCA encompasses the dynamic change process that occurs when individuals relocate to a new environment [35]. The concept of adaptation is rarely discussed in the tourism literature; when it appears, it often refers to intercultural adaptation in tourism contexts [36] or tourists' adaptation in response to climate change [37]. In ref. [36], authors stated that tourists must adapt to known and unknown objects in their environment. Especially for unknown objects, travelers need to learn quickly to ensure a steady, rewarding adaptation process [36]. For example, backpackers must learn map-based software or travel information software to adapt to unfamiliar settings. Tourists were also found to exhibit behavioral adaptation when encountering climate change in Australia's winter tourism destinations [38]. Put simply, travelers often undergo an adaptation process upon encountering a new environment or challenges within a destination. Even individuals who have remained in a previously novel environment for some time might need to adapt to different dimensions. In ref. [39] it was found that, to promote cross-cultural understanding among volunteers, participating organizations needed to actively manage volunteers before, during, and after a volunteer tourism program. Thus, for Chinese students in Thailand, specific CCA dimensions should be examined in depth.

Early research indicated that CCA is affected by hosts' communication competence and social communication [40]. Chinese students often have difficulty adjusting to daily life when interacting with non-Chinese students [41]. In ref. [19], authors proposed multiple CCA dimensions specific to Chinese students in Thailand, covering academic life, daily life, and intercultural communication apprehension. Indeed, CCA is not limited

to communication for Chinese students in Thailand; it also involves adjustment in the domains of academics and everyday life. Academic performance is a major motivation for overseas study [42], and students' motives for studying abroad can foster positive or negative adaptation [43]. Leisure-study of motivational conflicts are negatively related to students' academic and social adaptation [44]. Daily life adaptation refers to students' external adaptation, such as to an area's weather, food, and pace of life [19]. Such adaptation is fundamental to one's everyday life and identification with the local culture [19].

Although CCA directly affects the abovementioned conditions, moderating effects also merit attention. For example, [45] discovered that intercultural competence moderates the association between acculturation and depression. In ref. [46], authors indicated that cultural intelligence could decrease the negative effects of culture shock and reverse culture shock on international students' psychological and sociocultural adaptation. In the present study, we propose that different levels of CCA related to Chinese students' academic life, daily life, and intercultural communication apprehension play potentially moderating roles on their travel intentions. For example, CCA might reduce perceived risk through an understanding of public order and customs for intrapersonal constraints and thus influence individuals' travel intentions [47]. Similarly, a person with high intercultural communication competence might easily engage in an independent tour, be minimally affected by perceived challenges in interacting with friends and family (interpersonal constraints), and be able to alter their psychological state as needed [48]. Greater adaptation to academics and daily life can also enable Chinese students to readily engage in time and cost management and overcome a lack of information about activities or areas (i.e., structural constraints) [49].

The concept of CCA is relatively absent from the tourism literature, with only a few isolated efforts addressing cross-cultural (mis)understanding in volunteer tourism [39] or the cross-cultural effects on perceived information value and performance evaluation from travel destination websites [50]. CCA is an ongoing learning process for individuals living in a new environment [34]. In this study, we integrated Chinese students' CCA in tourism research to see if a simplified survey would enrich the understanding of the moderating effects between travel constraints and travel intentions. We therefore propose the following hypotheses and the research model is shown in Figure 1.

**Hypotheses 4.** *CCA moderates the relationship between intrapersonal constraints and travel intentions among Chinese students studying in Thailand.*

**Hypotheses 5.** *CCA moderates the relationship between interpersonal constraints and travel intentions among Chinese students studying in Thailand.*

**Hypotheses 6.** *CCA moderates the relationship between structural constraints and travel intentions among Chinese students studying in Thailand.*

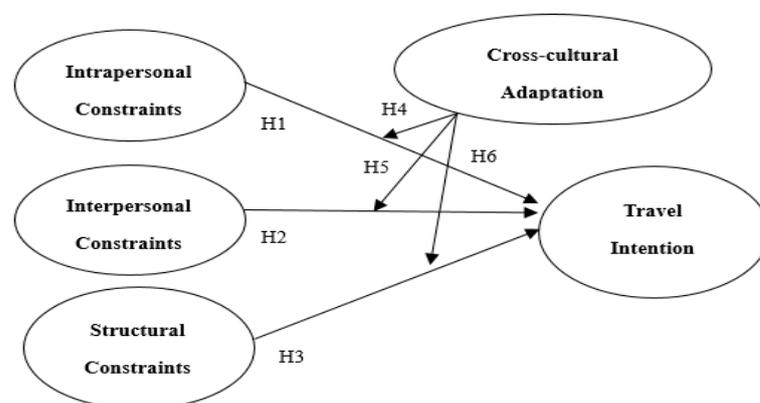


Figure 1. Research model.

### 3. Methodology

#### 3.1. Survey Instrument

Research showed that [24] LCM could elucidate the perceived travel constraints of multiple tourist segments [5,8]. In this study, we applied [6] revised LCM to evaluate Chinese students' intrapersonal, interpersonal, and structural constraints when studying in Thailand. Based on the World Tourism Organization's definition of "tourists", the destination must be outside travelers' everyday environment and must include a visit lasting at least one night but not more than one year. Therefore, items for each constraint dimension in this study focused on students taking a trip outside of Bangkok, Thailand. Intrapersonal constraints consisted of 5 items (e.g., "Traveling out of Bangkok involved too much risk"); interpersonal constraints included 4 items (e.g., "My family and friends were not interested in traveling out of Bangkok"); and structural constraints encompassed 10 items (e.g., "I had no time to take a trip to one place out of Bangkok"). The 3 items related to Chinese students' travel intentions were drawn from [51], including "I intend to travel to one place out of Bangkok in the future". Twenty-four CCA items were adopted from [19] and covered three subdimensions—academic life (e.g., "I can express my thoughts in class"); daily life (e.g., "I can adapt to the climate of Thailand"); and intercultural communication apprehension (e.g., "In general, I am happy to communicate with a group of people from different cultures."). All items were scored on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*.

A pilot test was conducted to verify items' clarity and ease of responding (i.e., face validity). The questionnaire was distributed to three faculty members in the tourism program and to 50 students at the Dhurakij Pundit University in Bangkok. Two items (the fourth item on intrapersonal constraints and the third item on place attributes) were removed because the reliability was below 0.7 [52]. The questionnaire was finalized after minor corrections for wording. Cronbach's  $\alpha$  for all items exceeded 0.8, indicating sound reliability [52].

#### 3.2. Data Collection and Analysis

The researcher distributed the questionnaire to Chinese students at a university in Bangkok, Thailand between 3 March 2019 and 11 November 2019. The chosen university hosts the largest number of Chinese students in Thailand and is representative of this international student population. The target of this study was Chinese students with a bachelor's degree. This is because students with a graduate degree or above have a shorter study time, and there might be problems in accurate measurements of cross-cultural adaptation. We considered that each student would need time to adapt to life in Thailand; therefore, to be eligible to participate, respondents were required to be in Thailand for at least 8 months (two semesters) at the time of data collection. We sent the questionnaire's QR code to each class group via QQ and WeChat, the most common communication apps in China. In total, 897 valid questionnaires were returned. The final sample size was appropriate for structural equation modeling (SEM), according to [53]. Among all participants, 38.6% were women and 61.4% were men. Respondents were roughly 20 years old (Mean = 20.17, Std. Deviation = 1.503), with finance and accounting as the two most popular majors. Participants' demographics are summarized in Table 1.

Data were examined in SPSS. First, we checked for normality and outliers. No outliers were detected, and the data were normally distributed. Second, we used the Amos 23 software package to perform measurement and structural model analyses. Maximum likelihood estimation with parameter estimation was adopted for these analyses. Finally, multigroup moderation analysis was conducted to determine the moderating effect of CCA [51].

**Table 1.** Demographic profile of respondents.

Characteristic	Group	%
Gender	Male	61.4
	Female	38.6
Age	18	15.9
	19	19.5
	20	26.9
	21	17.5
	22 and above	20.2
Grade	First year	39.9
	Second year	43.8
	Third year	10.1
	Fourth year	6.2
Major	International business	33.4
	Finance and accounting	40.7
	Tourism	20.5
	Arts and design	5.4
Number of trips in the past 6 months	0	19.8
	1	30.5
	2	29.3
	3	13.7
	4 and above	6.7

## 4. Results

### 4.1. Measurement Model Analysis

A series of fit indices were calculated for the dimensions (i.e., intrapersonal, interpersonal, and structural constraints) and subdimensions of interest (i.e., time, cost, and place attributes) to assess the measurement model. Findings revealed an acceptable model fit with significant chi-square statistics ( $\chi^2 = 887.432$ ,  $df = 152$ ) and other sufficient fit indices, namely RMSEA (0.073), GFI (0.904), CFI (0.930), NFI (0.917), RFI (0.900), and IFI (0.930) [54]. Composite reliability (CR) was used to examine the measurement scales' reliability. The CR values of all dimensions were higher than the suggested value of 0.8, reflecting sufficient reliability [55].

Average variance extracted (AVE) values were analyzed next to evaluate convergent validity. As shown in Table 2, the AVE values for all items were above the recommended threshold of 0.5, indicating good convergent validity [55]. We then compared the square roots of AVE values with the correlations between variables, to evaluate discriminant validity. Findings showed that the square roots of AVE values were higher than the inter-factor correlations, demonstrating satisfactory discriminant validity (Table 3).

**Table 2.** Measurement model.

Construct	M	SD	Standardized Loading	Construct Reliability	AVE
Intrapersonal constraints				0.819	0.539
Traveling out of Bangkok involved too much risk.	4.45	1.391	0.53		
I was not interested in the activities out of Bangkok.	3.73	1.610	0.80		
I was not interested in traveling out of Bangkok.	3.42	1.583	0.88		
I was unable to drive out of Bangkok. *					
My health did not allow me to travel out of Bangkok.	2.90	1.649	0.68		
Interpersonal constraints				0.800	0.502
I had no one to travel with out of Bangkok.	3.56	1.724	0.72		
My family and friends were not interested in traveling out of Bangkok.	3.36	1.656	0.84		
It is not fun to travel out of Bangkok by myself.	4.38	1.797	0.50		

Table 2. Cont.

Construct	M	SD	Standardized Loading	Construct Reliability	AVE
I didn't have friends and family to stay with when traveling out of Bangkok.	3.51	1.760	0.73		
Structural constraints				0.928	0.593
Time	3.64	1.36	0.81		
I had no time to take a trip out of Bangkok.	4.10	1.647	0.57		
Family commitments kept me from traveling out of Bangkok.	3.19	1.626	0.69		
Cost	3.90	1.48	0.71		
It was too expensive to travel out of Bangkok.	3.83	1.646	0.87		
The things I wanted to do out of Bangkok were expensive.	4.16	1.684	0.82		
I could not afford to travel out of Bangkok.	3.72	1.617	0.86		
Place attributes	3.97	1.25	0.85		
I had no information about places to visit and activities in which to participate out of Bangkok.	3.84	1.641	0.71		
There were no areas out of Bangkok I wanted to visit.	3.51	1.633	0.83		
The weather was unfavorable out of Bangkok. *					
There was too much traffic out of Bangkok.	4.13	1.597	0.71		
The city out of Bangkok is too far away to visit.	3.78	1.596	0.82		
Travel intention				0.921	0.795
I intend to travel to one place out of Bangkok in the future.	5.47	1.172	0.89		
I predict that I should travel to one place out of Bangkok in the future.	5.42	1.215	0.82		
I am willing to visit the place other than Bangkok in the future.	5.48	1.182	0.96		

\* Item was deleted in the pretest.

Table 3. Discriminant validity matrix for measurement model.

		1	2	3	4
1	Intrapersonal constraints	<b>0.734</b>			
2	Interpersonal constraints	0.658	<b>0.708</b>		
3	Structural constraints	0.652	0.736	<b>0.770</b>	
4	Travel intention	−0.229	−0.146	−0.194	<b>0.892</b>

Note: AVE and CR scores are presented in Table 1. Off-diagonal elements: Inter-construct correlations. Diagonal (bold): square root of AVE.

#### 4.2. Structural Model Analysis

SEM analysis was conducted to test our hypotheses. Results indicated a good model fit based on the RMSEA (0.079) and GFI, CFI, NFI, RFI, and IFI (each above 0.9) [53]. Intrapersonal constraints (path coefficient = −0.29) and structural constraints (path coefficient = −0.26) both negatively affected Chinese students' travel intentions, whereas interpersonal constraints positively influenced their intentions (path coefficient = 0.29). H1, H2, and H3 were thus supported (Table 4).

Table 4. Hypothesis test results (moderation hypotheses are excluded).

Structural Path	Standard Path Coefficient	t-Value	Hypothesis Supported?
H1: Intrapersonal constraints → Travel intentions	−0.29 ***	−3.787	Yes
H2: Interpersonal constraints → Travel intentions	0.29 *	2.006	Yes
H3: Structural constraints → Travel intentions	−0.26 *	−2.008	Yes

Notes: \*\*\*  $p < 0.01$ ; \*  $p < 0.10$ .

#### 4.3. Moderating Role of CCA

The three CCA subdimensions consisted of academic life (7 items;  $M = 5.47$ ,  $SD = 0.94$ ), daily life (7 items;  $M = 5.30$ ,  $SD = 1.07$ ), and intercultural communication apprehension (7 items;  $M = 5.34$ ,  $SD = 1.052$ ). First, we used K-means clustering to divide CCA into high- and low-level groups. Second, we performed discriminant analysis to check the

consistency of findings with the K-means clustering results and to test the validity of groups. Third, we conducted an independent sample *t*-test to determine whether both groups differed significantly in terms of CCA. The results showed that the high- ( $n = 489$ ,  $M = 5.89$ ) and low- ( $n = 408$ ,  $M = 4.57$ ) CCA groups were 100% consistent with K-means clustering. Additionally, both groups showed significant differences in CCA ( $F = 0.432$ ,  $t = 38.2$ ,  $df = 895$ , Two-tailed  $p = 0.000$ ). An exploratory factor analysis was conducted to identify the underlying dimensions of CCA. The Kaiser Meyer-Olkin test, which evaluates the measure of sample adequacy (MSA) was 0.948, achieved the 0.5 minimally accepted level (MSA = 0.948). The Bartlett's test of sphericity was significant with a value of 16,230 ( $\alpha = 0.000$ ). A principle component analysis and varimax method were applied. Finally, three factors were extracted (Table 5), explaining 62.696% of the variance. The first factor, namely, academic life, explained 46.635% of the variance; the second factor, namely, daily life, explained 8.474% of the variance; the third factor, namely, boredom alleviation, explained 8.454% of the variance; and last, the fourth factor, namely, intercultural communication apprehension, explained 7.587% of the variance. To evaluate the reliability of the measurement scales, construct reliability was utilized. The scales' alpha coefficient values ranged from 0.893 to 0.906. On the basis of the recommended benchmark value (i.e., 0.70), the scales were considered reliable [52].

**Table 5.** Principle component analysis of CCA.

	Factor Loading	Eigenvalues	Variance Explained (%)
Factor 1: Academic life (reliability alpha coefficient = 0.896)		11.192	46.635
I can express my thoughts clearly in class.	0.733		
I can jot down the main points of the course content during class.	0.762		
I can read the courseware or materials specified by the teacher.	0.785		
I can cooperate with others in class activities to complete homework and tasks.	0.778		
I can understand the teacher's comments on my performance and homework.	0.772		
I can finish my homework on time.	0.581		
I can discuss learning content with Chinese students outside class. *			
I can understand the curriculum and credit system of the college.	0.565		
Factor 2: Daily life (reliability alpha coefficient = 0.893)		2.034	8.474
I can adapt to the climate of Thailand	0.694		
I can adapt to Thai food.	0.700		
I can adapt to the accommodation environment in Thailand.	0.749		
I can adapt to the pace of life in Thailand.	0.734		
I like Thailand's traditional festivals, such as the Songkran Festival, the Loy Krathong Festival and so on.	0.693		
I admire Thai culture and customs, such as going to Thai temples, Thai traditional costumes, Thai handmade arts.	0.709		
I often go to Thai supermarkets, shops or Thai restaurants.	0.632		
I like to travel around in Thailand. *			

Table 5. Cont.

	Factor Loading	Eigenvalues	Variance Explained (%)
I adapt to Thai traffic and understand Thai traffic laws. *			
Factor 3: Intercultural Communication Apprehension (reliability alpha coefficient = 0.906)		1.821	7.587
I am happy to communicate with a group of people from different cultures.	0.629		
I like to participate in group discussions with people from different cultures.	0.665		
Communicating with a group of people from different cultural backgrounds, I feel relaxed.	0.736		
I am not afraid to talk to people from different cultures.	0.721		
When talking to a person from a different culture, I am usually relaxed.	0.706		
When talking to people from different cultures, I feel very relaxed.	0.750		
I have the confidence to communicate with people from different cultures.	0.727		

\* Item was deleted in the pretest.

We observed a significant moderating effect of CCA on the relationship between students' interpersonal constraints and travel intentions (H5) and on the relationship between structural constraints and travel intentions (H6). Conversely, the moderation effect across intrapersonal constraints on students' travel intentions was not significant (Table 6).

Table 6. Moderation effect of CCA.

	Intrapersonal Constraints → Travel Intentions	Interpersonal Constraints → Travel Intentions	Structural Constraints → Travel Intentions
Low	0.189	0.478	0.724
High	0.029	0.007	−0.442
z-score	0.132	2.051 **	−1.911 *
Hypothesis Result	H4 (Not supported)	H5 (Supported)	H6 (Supported)

Notes: \*\*  $p < 0.05$ ; \*  $p < 0.10$ .

## 5. Discussion and Conclusions

### 5.1. Effects of Travel Constraints on Travel Intentions

Travel constraints were discussed for decades in the tourism industry and are often viewed as barriers to travel intentions [1,56]. However, the present study showed that intrapersonal, interpersonal, and structural constraints exhibited distinct impacts on Chinese students' travel intentions. Specifically, the data indicated that while intrapersonal and structural constraints negatively affected travel intentions, interpersonal constraints positively influenced these intentions. According to the factor loadings, Chinese students' disinterest in joint travel and activities in a certain destination represented major intrapersonal constraints preventing them from traveling outside of Bangkok. This result was consistent with that of [11] who identified disinterest as the sole constraint factor to have a significant negative effect on revisit intention. Tourism managers should therefore devise strategies to highlight the novel features of local attractions and meet Chinese students' needs [57]. At the same time, this finding was inconsistent with the results of [28,58]; both studies revealed that constraints could also have positive functions. Travelers might

view constraints positively, as evidenced by greater resiliency and commitment [13]. In the present study, we discovered that intrapersonal constraints exerted direct adverse psychological effects on travel intentions rather than potentially positive effects [24,25].

In contrast to other studies that framed interpersonal constraints as only negatively influencing travel intentions [24,25], the current study unveiled a positive effect between interpersonal constraints and travel intentions. In the context of this research, we asked Chinese students about their perceived constraints to visiting a city outside of Bangkok. The main factor loading on the interpersonal dimension pertained to the item “My family and friends were not interested in traveling out of Bangkok”. Nonetheless, this factor reverse-motivated Chinese students to discover previously unattended abilities [13]. Therefore, travel agency managers should investigate Chinese tourists’ motivations and travel preferences to craft differentiated tourism products. The positive impacts of interpersonal constraints on travel intentions implied that Chinese travelers still tend to join tours even without companions. Different from [28], the present study showed that Chinese students no longer focused on package tours but instead pursued independent travel. Therefore, despite planning independent tourism products, tourism managers could also develop an emerging way for tourism, such as chartered tours. Participants could decide attractions on their own or arrange the itinerary by the driver, which could not only reduce the minimum number of groups but could also meet the travel needs of Chinese students.

The proposed hypotheses involving structural constraints and travel intentions indicated a negative correlation. This result was consistent with [8,34], who both noted monetary and time constraints as hindering travel intentions. The present study corroborated prior findings suggesting that place attributes play central roles in structural constraints [52]. A substantial disparity in tourism development between Bangkok and other cities in Thailand might explain this pattern. For Chinese students, a large volume of travel information about cities outside of Bangkok was presented in Thai, and inconvenient traffic gave students the sense that such destinations were too far to visit. Given this outcome, tourism development officials should create strategies intended to improve transportation systems connecting destinations outside of Bangkok. Officials should also provide additional Chinese-language travel information on relevant websites. Moreover, local travel agencies could develop travel routes with lengths and costs that are feasible for students.

This study’s findings are expected to promote a clearer understanding of Chinese students’ perceived travel constraints and travel intentions while studying in Thailand. First, this research provides valuable insight into Chinese international students’ constraints to traveling in Thailand. Compared with interpersonal constraints and structural constraints, intrapersonal constraints affected students’ travel intentions more strongly; Chinese students’ travel concerns thus appear to be changing. They now have sufficient resources to arrange their own travel, and they are not restricted by whether they can travel with friends; the major drawback is whether a tourist destination is appealing enough to capture students’ curiosity and interest. Second, students represent a key target market for the tourism industry. Regularly tracking and understanding students’ travel constraints would help tourism managers engage in more effective tourism planning and development. Finally, [6] revised LCM could further explain Chinese students’ perceived travel constraints. Thus, when discussing these students’ structural constraints on traveling, place attributes warrant careful exploration. In particular, the mean score for place attributes exceeded those associated with time and cost as structural constraints. Most Chinese students who planned trips outside Bangkok or who used travel agencies tended to visit well-known attractions in other cities, leading to an expectation that travel outside Bangkok would involve a congested or long journey. Moreover, tourism information in secondary cities was often limited. Official tourism departments in each city should therefore strengthen their promotion of scenic spots and develop other distinctive tourist attractions to avoid overcrowding at well-known sites. These measures would mitigate a decline in tourism quality along with a poor tourism image and negative word of mouth.

### 5.2. Moderator Role of CCA

In this study, CCA was operationalized on the basis of Chinese students' self-descriptions related to academic life, daily life, and intercultural communication apprehension according to [19]. These parameters were then applied to examine the experiences of Chinese students in Thailand. First, we observed no significant moderating role of CCA on the relationship between intrapersonal constraints and travel intentions. As mentioned, we proposed that individuals with high CCA might perceive fewer risks associated with intrapersonal constraints. However, our results did not support this proposition because perceived conditions were difficult to change using CCA. Examples included a personal disinterest in travel, disinterest in destination-based activities, and perceptions about one's personal health.

Second, our findings aligned with Hypothesis 5 (i.e., CCA significantly moderated the relationship between interpersonal constraints and travel intention). That is, individuals exhibiting high CCA might express stronger travel intentions under constraints related to social interaction or associations among personal characteristics. In ref. [59], authors reported that an individual's personal background could moderate the relationship between individualism/collectivism and group travel intentions. Thus, although Chinese students in this study believed that no one could accompany them on a trip, they could change their tourism option to an independent tour in accordance with personal traits, such as CCA and their personal background [60,61].

Third, the results of this study clearly supported the moderating effect of CCA on the correlation between structural constraints and travel intentions. Presumably, students with high CCA performed well academically, in daily life, and in terms of intercultural communication apprehension. They were therefore able to engage in effective travel planning (i.e., cost control and destination knowledge) and time management. For example, the understandability of content was shown to positively influence blog usage enjoyment and visit intention [49]. The key role of intercultural communication in tourism and recreation was also addressed in relation to the travel process and associated decisions [62].

In conclusion, CCA is critical to bolstering Chinese students' travel intentions when faced with interpersonal and structural constraints. For tourism managers, developing various products (e.g., package tours, semi-tours, or ticketing and transportation services) that match different self-descriptions of CCA would benefit future industry development. For Chinese students', place attachment and satisfaction are positively related to word of mouth, recommendation intentions, and willingness to help Chinese tourists create satisfying experiences [63]. Education managers should thus attend to Chinese students' CCA and offer courses to increase students' awareness of Thai culture and customs. Such measures would likely enhance these students' intercultural communication skills. Additionally, the influence of CCA on travel intentions was confirmed in this study—students' degree of CCA could help alleviate interpersonal and structural constraints, such as by enabling them to plan tourism activities more independently or to communicate more effectively with local residents, as they learn Thai. Students' academic performance was also related to their travel intentions. For instance, they might have more extracurricular time to participate in travel activities or become more familiar with travel information outside Bangkok [47].

### 5.3. Limitations and Future Research Directions

This study makes a valuable contribution to the literature on travel constraints and travel intentions based on a sample of Chinese students, who were not previously investigated using these concepts. Nevertheless, this research has several limitations that offer avenues for future work. First, the study's focus on Chinese students' travel constraints and intentions limits the generalizability of results with respect to all international students in Thailand. Second, a self-described close-ended questionnaire was distributed via social networks (QQ and WeChat) to collect data; students did not complete a physical survey at a fixed place or time. Standardized survey administration might have elicited more

consistent and valid findings. Subsequent studies could also compare Chinese and Western students' travel constraints to identify potential cultural differences. Lastly, Chinese students' perceived travel constraints in other developing countries in Southeast Asia should be examined to pinpoint Chinese students' roles in the tourism industry and better contextualize various market segments.

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