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A study of the attitudes and factors influencing Taiwanese students' decisions about study abroad in New Southbound Policy Countries

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Abstract

In 2017, Taiwan government started to implement New Southbound Policy. The core concept of this Policy is ‘People-Oriented’, which emphasizes on the people-to-people interactions and friendship building between Taiwan and new southbound countries. Based on the above, Taiwan Ministry of Education announced the three years project of ‘Three Years Program of Talent Cultivation between Taiwan and New southbound countries’. However, it is noting that, the number of Taiwanese students who study in new southbound countries is apparently less in comparison to the ones of students of New southbound countries who study in Taiwan. To our best knowledge, what causes the above phenomenon is still unclear. Therefore, this study aimed to explore what are the main factors which may be considered when students consider studying aboard to New southbound countries, thereby obtaining more understandings to this phenomenon. 153 Taiwanese students, who study in colleges or universities, participated in this study. Among them, 147 students accepted the survey of self-developed questionnaire, 6 students were invited to participate in the semi-structured interviews. These collected data were analyzed by Rasch PCM Model, good-of-fit test, and constant analysis. The results indicated that, three factors, namely academic factor, economic factor, personal factor, all were main factors which might be considered when Taiwanese students consider studying aboard to New southbound countries. For academic factor, only if the expertise and programs which Taiwanese students want to cultivate in new southbound countries are prominent, they may consider studying abroad in there. This is because they still have stereotypes to universities in new southbound countries, such as low academic prestige, poor academic resources, and poor teaching conditions, etc. For economic factor, Taiwanese students attach importance to whether they can get enough grants to cover the cost of living and tuition fee in new southbound countries. For personal factor, Taiwanese students not only attach importance to whether their horizons can be broadened by studying abroad in new southbound countries, but also consider whether these studying abroad experiences are beneficial for their career development. Notably, Taiwanese students generally believe that the above two aspects are the incentives for them to study in new southbound countries because of some reasons, such as the implementation of new southbound policy and the constant economic development in new southbound countries.

Keywords: New southbound policy, consideration factor, Taiwanese students, study abroad.

Introduction

The ideas and goals of the New Southbound Policy in Taiwan

After Taiwan's new president, Tsai Ing-wen, took power in May 2008, she announced an important new regional strategic policy called the New Southbound Policy (NSP). The policy targets 18 countries, including the 10 Association of Southeast Asia Nations (ASEAN) member countries, six south-Asian countries, Australia, and New Zealand. In the past, the southbound policy focused on promoting and facilitating economic and trade relationships between Taiwan and these countries, which meant the Taiwanese government provided significant development assistance to many of them as part of this policy. However, this time, the core concept of the NSP is that it is "People-Oriented," which means that it not only concerns trade and economic issues, but also emphasizes interaction and cooperation in areas such as economy, industry, talent exchange, technology, etc. Therefore, it is apparent that the Tsai Ing-wen administration is moving toward a focus on collaboration rather than aid and attaching greater importance to establishing "a sense of community" between Taiwan and these southbound countries by creating mutual benefit and mutual growth (Yang, 2017).

Because the (NSP) is based on the People-Oriented perspective, strengthening the cultivation and exchange of skilled people, or "talent," between Taiwan and the southbound countries is the most important purpose of this policy for relevant government departments. In this regard, Taiwan's Ministry of Education developed a three-year program (2017-2020) for "Talent Cultivation between Taiwan and New Southbound Policy Countries" (NSPC) based on the NSP guidelines and promotion program. The program emphasizes that Taiwan's government will not only provide more grants and scholarships to the students of NSPC who are willing to study in Taiwan (i.e. the attracting strategy), but will also provide such financial aid to Taiwanese students who want to go to other NSPC countries for education, internships, etc. (i.e. the go out strategy). By doing so, Taiwan's government hopes to promote Taiwanese universities and colleges, to create more educational exchange opportunities for those in NSPC, and to deepen interactions and relations between Taiwan and the southbound countries. Thus, this deepened commitment to fostering educational exchange will help fulfill the NSP vision for the promotion of economic development through cooperation and educational exchange. Specifically, through the implementation of this program, the Taiwanese government expects that the number of students in Taiwan from NSPC will grow 20% per year from 2017 to 2020 so that by 2020, the total number of students from NSPC will be 58,000, while the number of Taiwanese students who study or intern in NSPC countries will be 3280 (Yang, 2017).

The number of Taiwanese students who study in NSPC and the number of NSPC

students who study in Taiwan

The problem of facilitating opportunities for student interaction has become a crucial part of implementing the policy. The following data provides some evidence to evaluate the effectiveness of the “attracting policy.” As shown in Table 1, from 2007 to 2015 the number of degree-oriented students from the NSPC rose from 8,760 to 19,747, an increase of 125.42%. The number of NSPC students increased further in 2016, to 21,882. Degree-oriented students from the NSPC accounted for 42.29% of the total number of foreign degree-oriented students in Taiwan, making NSPC the most significant source of foreign students in Taiwan. Notably, among the 18 NSPC, most students come from Malaysia, followed by Indonesia, India, Thailand, and Myanmar. The most popular disciplines for the degree-oriented students from the NSPC are business and management, engineering, humanities, and communications studies, while the least popular include environment, transportation, social services, law, and mathematics (Ministry of Education, 2017).

Table 1 The number of the Degree-Oriented Students from New southbound countries in Taiwan

<i>COUNTRY/YEAR</i>	2015	2014	2013	2012	2011	2010	2009	2008	2007
<i>MALAYSIA</i>	11,534	9,925	8,141	6,927	6,039	5,444	4,828	4,106	3,775
<i>VIETNAM</i>	2,895	2,741	2,568	2,535	2,244	3,442	1,623	1,169	873
<i>INDONESIA</i>	2,725	2,345	2,043	1,855	1,677	2,301	1,392	1,353	1,287
<i>THAILAND</i>	768	816	799	725	718	680	659	638	571
<i>MYANMAR</i>	467	412	407	433	558	726	994	1,229	1,582
<i>SINGAPORE</i>	190	199	181	179	158	136	117	84	75
<i>PHILIPPINES</i>	174	171	190	178	159	172	200	193	144
<i>BRUNEI</i>	18	16	13	14	11	8	6	7	6
<i>CAMBODIA</i>	3	2	2	6	7	6	11	17	28
<i>LAOS</i>	4	4	4	2	1	-	-	-	-
<i>INDIA</i>	804	649	496	439	388	368	342	323	309
<i>NEPAL</i>	34	29	28	21	16	18	16	15	11
<i>PAKISTAN</i>	36	21	14	8	3	3	2	2	2
<i>SRI LANKA</i>	17	15	15	13	5	8	7	5	4
<i>BENGAL</i>	15	13	20	22	22	17	16	14	11
<i>BHUTAN</i>	1	1	1	-	-	-	-	-	-
<i>AUSTRALIA</i>	31	35	27	38	36	39	47	49	45
<i>NEW ZEALAND</i>	31	34	34	35	30	29	34	35	37
TOTAL	19,747	17,428	14,983	13,430	12,072	13,397	10,294	9,239	8,760

Table 2 is regarding the non-degree-oriented students. The number of NSPC students who study in Taiwan increased from 4,195 in 2007 to 9,649 in 2016, an increase of 130%. In 2016, most non-degree-oriented students came from Malaysia, which accounts for 35% of the total number of non-degree-oriented students from NSPC. Malaysia is followed by Indonesia, Vietnam, Thailand, and Singapore. Of the non-degree students who came from south-Asian countries in the NSP, the biggest proportion were from India. The number of students from Australia exceeded that from New Zealand.

To sum up, the majority of students who come from NSPC are doing so with the purpose of earning a degree from Taiwanese universities or colleges. However, the number of both degree-oriented and non-degree-oriented students has grown rapidly in the past ten years. It seems that the “attracting strategy” has had an impact.

Table 2 The number of the Non-Degree-Oriented Students from New southbound countries in Taiwan

<i>COUNTRY/ YEAR</i>	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>MALAYSIA</i>	223	173	430	417	2196	2563	3224	3361	3412	3362
<i>VIETNAM</i>	634	739	1161	1917	1668	1383	1065	974	1148	1609
<i>INDONESIA</i>	1243	1537	901	1487	898	1048	1143	1214	1669	1943
<i>THAILAND</i>	364	413	509	532	586	721	747	719	713	965
<i>MYANMAR</i>	30	6	7	4	7	23	33	76	112	78
<i>SINGAPORE</i>	83	118	123	159	196	242	425	479	557	434
<i>PHILIPPINES</i>	144	169	185	211	314	317	336	395	359	446
<i>BRUNEI</i>	1	1	0	1	6	6	12	7	7	15
<i>CAMBODIA</i>	8	7	3	0	2	0	2	2	1	2
<i>LAOS</i>	0	0	0	3	1	1	0	1	0	1
<i>INDIA</i>	106	85	96	109	157	149	149	208	339	377
<i>NEPAL</i>	7	6	5	7	14	14	9	24	20	14
<i>PAKISTAN</i>	1	1	0	5	3	4	3	2	3	9
<i>SRI LANKA</i>	2	1	1	3	4	5	3	1	1	4
<i>BENGAL</i>	0	0	1	4	4	3	2	3	0	1
<i>BHUTAN</i>	5	4	0	2	0	2	5	11	14	8
<i>AUSTRALIA</i>	162	158	212	231	219	233	286	336	376	305
<i>NEW ZEALAND</i>	92	69	40	59	75	63	67	48	72	76
<i>TOTAL</i>	4195	3487	3674	5151	6350	6777	7511	7861	8803	9649

Compared to the “attracting strategy,” the effects of the “go out” policy have been

limited. The following table (Table 3) shows the number of Taiwanese students who learn and intern in the NSPC. From 2014 to 2016, the number of Taiwanese students in the NSPC decreased from 658 to 179, its lowest point and a decrease of 267%. Moreover, the number of degree-oriented Taiwanese students in NSPC also decreased, by 33%, from 241 in 2013 to 161 in 2016. To sum up, the number of Taiwanese students who study in NSPC is much lower than the number of NSPC who study in Taiwan. This raises the question: What factors do Taiwanese students consider when making the decision to study abroad?

Table 3 The number of the Taiwanese students for interning and learning in New southbound countries

<i>COUNTRY/ YEAR</i>	2015	2014	2013
<i>MALAYSIA</i>	69	95	17
<i>VIETNAM</i>	90	81	14
<i>INDONESIA</i>	31	30	20
<i>THAILAND</i>	102	152	68
<i>MYANMAR</i>	0	0	0
<i>SINGAPORE</i>	238	290	47
<i>PHILIPPINES</i>	0	17	3
<i>BRUNEI</i>	0	9	1
<i>CAMBODIA</i>	0	0	0
<i>LAOS</i>	0	0	0
<i>INDIA</i>	530	674	170
<i>NEPAL</i>	0	6	0
<i>PAKISTAN</i>	10	0	0
<i>SRI LANKA</i>	0	0	0
<i>BENGAL</i>	0	0	0
<i>BHUTAN</i>	0	0	0
<i>AUSTRALIA</i>	0	0	0
<i>NEW ZEALAND</i>	10	6	0
<i>TOTAL</i>	96	53	9

Choice factors in the study abroad decision

There are two theories, **push-pull theory** and **rational choice theory**, which can provide explanations for students' decisions to study abroad, and therefore shed some light on what factors might be important to consider in order to understand their decision-making process.

Push-Pull theory offers a macro perspective, and takes into consideration political, economic, educational, social and cultural factors to explain students' study abroad decisions.

These factors can be divided among two categories: push factors related to the home country which encourage students to leave for study abroad, and pull factors related to host country which attract students to study abroad there. Chang and Yu (1999) examined both push and pull factors. Factors related to the home country which promote study abroad include economic factors such as whether the host country has a higher GNP than the home country, and the exchange rate between two countries. Educational factors relate to whether the host country offers generous scholarships or grants and easy access to enrollment as well as a similar educational system to the home country). Political factors include the colonial and/or diplomatic relationship between the two countries. Finally, social and cultural factors pertain to whether the two countries share a similar or the same culture or language. The factors related to the host country's attraction for students include educational factors such as friendly policies and attitudes toward applications, scholarships and grants, the learning environment, and language enhancement., Environmental factors such as transportation, safety, living environment and the convenience of host country also play a role, as do, political factors such as political stability and diplomatic relations between the two countries. Historical and cultural factors relate to whether the host country shares a similar culture with the home country. According to the Push-Pull theory, students' choice about where to study is influenced by all of these "push" and "pull" factors discussed above, and often their decision is made by maximizing utility.

The macro perspective of Push-Pull theory is one perspective that has guided previous research, and emphasizes the role of macro factors - political, educational, economic, and social/cultural - in shaping students' study abroad choices. Rational choice theory focuses on a micro, or individual perspective. It argues that individual decisions about studying abroad are driven by rational consideration and judgment. The factors affecting an individual's decision are not only those related to the macro perspective as discussed above, but also those related to the micro perspective such as students' personality traits, capabilities, motives, goals, and gender (Li & Bray, 2007). Students who are extroverted and enjoy adventures and challenges, for example, are more likely to choose to study abroad (Chen, 2006). The decision to study abroad is also related to individual goals, such as achieving class mobility (Eccles & Wigfield, 2002; Wigfield & Eccles, 2000). In addition, an individual's decision will also be affected by personal preferences, such as those for a host country's climate and living environment, for example (Altbach & Knight, 2007). According to rational choice theory, individuals take all of the factors mentioned above into consideration when choosing to study abroad.

This study combines the two theoretical approaches and divides students' study abroad choice factors into six categories. Academic factors include the academic aspects of universities and colleges in host countries such as academic reputation, sufficiency of resources, faculty structure, learning environment, difficulty of admission, and complexity of

application procedure. Cultural factors include the host country's language and habits and customs. Political factors include the tenor of diplomatic relations between the host country and the home country. Economic factors relate to the relevant economic aspects of host countries such as university tuition and fees, cost of living, scholarship and grant opportunities, local social welfare support, and employment opportunities. Social factors include the living quality, safety, geographic location, climate, and networks of friends or relatives already living or studying in the host country. Finally, personal factors are those that pertain to individual goals such as the potential for study abroad to advance one's career development, broaden one's horizon or add to one's personal experience in a meaningful way (Ma, 2000; Knight, 2006; Szelenyi, 2006).

The present study

To our knowledge, no studies have explored the study abroad experience and choice factors for Taiwanese students in NSPC. Given the Taiwanese government's NSP is implementing and the number of Taiwanese students who study abroad in NSPC remains quite low, this study aims to explore the attitudes of Taiwanese students toward studying abroad in NSPC, as well as the main factors students consider in making their choices to study abroad in these countries. By doing so, we expect that the results of this study can add to the relevant literature of both theoretical and empirical studies regarding the choice to study abroad, not only by showing the concrete choice factors in students' decision to study abroad in NSPC or not, but also by clarifying the complex, dynamic process behind their decision making.

Methods

Participants

Participants were recruited for this study via convenience sampling and purposive sampling. In order to be eligible to participate, individuals had to be Taiwanese students who are studying in either Taiwanese colleges or universities (i.e. bachelor students, master students, doctoral students). The concurrent embedded design, proposed by Cresswell and Clark (2007), was the type of mixed methods design, adopted in this study. Like other mixed methods approaches, the qualitative data gathered can be used to explore the meaning behind, or contextualize, the quantitative data. This approach has the added benefit of overcoming problems of insufficient quantitative data (Sung & Pen, 2010). Therefore, the participants in study were divided into both quantitative and qualitative samples.

For the quantitative data, a total of 147 Taiwanese students participated in the survey and filled out an online questionnaire regarding the attitudes and choice factors of Taiwanese students toward studying abroad in NSPC. Of these 147 questionnaires, 143 were valid and

complete. In the sample of 143, there were 54 males and 89 females. There were 79 bachelor's students, 55 master's students, and 9 doctoral students. The age range was 18 to 55, and the average age was 24.07.

For the qualitative data, a total of 6 Taiwanese students were recruited and interviewed. Nine interview transcripts were developed because 3 students were interviewed twice. Of these, 2 were males, and 4 were females, with 2 bachelor's students, 2 master's students, and 2 doctoral students. The age range was 27 to 31. The mean age was 28.83. 4 were from Northern, and 2 from Southern Taiwan.

Instrument

Online questionnaire. The online questionnaire used in this study was developed with reference to "The questionnaire for international students" (Ma, 2014) and "The questionnaire for Chinese students' willingness toward studying abroad in Taiwan" (Chen, 2011). After its initial development, two experts specializing in the study abroad research and psychometrics, as well as two Taiwanese students were invited to review and revise the survey and to confirm that the relevant choice factors regarding studying abroad were included. In this way, the validity of the questionnaire was confirmed.

The questionnaire is divided into two parts. The first part consists of 23 items (i.e. 1 global item and 22 specific items) for exploring students' choice factors for studying abroad in NSPC. The global item is aimed to understand what factors are high priorities for students considering studying abroad in NSPC. The specific items explore the importance of different sub-factors of each of the five main factors: academic, cultural, political, economic, and personal. Like the first item, these are scored on a 10-point Likert Scales ranging from not willing (0) to very willing (9). Academic factors (5 items) include academic aspects of universities and colleges in NSPC such as academic reputation, sufficiency of resources, faculty structure, learning environment, etc. Cultural factors (3 items) include such aspects as language, habits and customs, life styles, etc. Political factors (1 items) include the tenor of relations between Taiwan and NSPC. Economic factors (6 items) refer to aspects as tuition and fees, cost of living, scholarship and grant opportunities, local social welfare supports, employment opportunities, etc. Social factors (5 items) refer to things like living quality and function, safety, geographical location and climate, having friends or relatives who live or study in NSPC, etc. Finally, personal factors (2 items) refer to the extent to which the study abroad experience promotes students' career development, broadens horizons, or constitutes a meaningful life experience.

The second part consists of an open question for collecting students' feedback or suggestions regarding the NSP.

The first part constitutes the main part of the questionnaire; therefore, a Rasch partial credit model (PCM) and ConQuest 2.0 software were adopted to assess the psychometric

quality of this part in this study. The Rasch technique is appropriate because it can provide indices to assess an item's fit. In addition, the Rasch technique can put the latent traits of the samples and item difficulty into the same scale for comparison. This technique, therefore, can solve some limitations of classic test theory (Bond & Fox 2016). A unidimensional Rasch PCM model was used to conduct the model-data fit analysis for the six main categories of choice factors for studying abroad. The results of the analysis showed that the infit MNSQ (mean square) indices for all items under these six main categories ranged from 0.67 to 1.40, which met the criterion set by Bond and Fox (2007), (i.e. 0.6 to 1.4). This means that the items, or sub-factors, included in the same factor category all measure the same construct. For example, the five items included in the category of academic factors all measure the same construct, namely that of academic aspects. Second, this study adopted a multidimensional Rasch PCM model to conduct model-data fit analysis for confirming whether the choice factors can be divided into these six categories. The results of this analysis revealed that the infit MNSQ (mean square) indices for all items ranged from 0.60 to 1.39, which also met the criterion set by Bond and Fox (2007). This means the choice factors can be divided into these six categories. Moreover, the item separation reliability of the 22 items, or sub-factors, is 0.96, which means the logit value of these items can be effectively differentiated in terms of this sample (Linacre, 2006). To sum up, the first part of this questionnaire possessed positive reliability and validity.

Interview outline. This study employed semi-structured interviews to collect qualitative data. This interview outline was based on the results from the quantitative data, and was aimed to further clarify the students' choice factors in studying abroad in NSPC.

First, we asked participants, "If you want to study abroad, will NSPC be your priority? Why or why not? Second, we shared with participants the results of the quantitative analysis, that when Taiwanese students consider whether to study abroad in NSPC, they primarily consider three types of factors, academic, economic, and personal. We then asked participants the following questions:

1. In terms of the above three factors, what factor(s) might motivate you to study abroad in NSPC? Why?
2. In terms of the above three factors, what factor(s) might deter you from studying abroad in NSPC? Why?
3. Except for the above three factors, would anything else motivate you to study abroad in NSPC? Or are there still other factors which have an impact on your willingness to study abroad in these countries? Why?

Procedures and data analysis

Participants' invitation for the quantitative part of this study. After developing the questionnaire, we uploaded it to an online site, and then posted an invitation to potential participants to fill out the questionnaire, as well as relevant research information (e.g., the purposes, contents, rights of participants, and the website address of the questionnaire, etc.) to social websites such as Facebook, BBS, etc. We also contacted potential participants via email and social media. The researchers not only informed them of relevant research information and invited them to fill out the questionnaire, but also asked them to promote this research to others.

Quantitative data analysis. After collecting the quantitative data (i.e. questionnaire) and inputting them in text form, we began analysis. For the first part of the questionnaire, we counted the number of times each factor was chosen by participants. We then used SPSS 21.0 to perform a Chi-square goodness-of-fit test to clarify the most important category of choice factors for Taiwanese students in deciding to study abroad in NSPC.

After confirming what the most important choice factors are, we conducted further analysis to clarify the important sub-factors (e.g., faculty structure, curriculum, etc.) under these main categories (e.g., academic factors). For this, we adopted a Rasch PCM model to calculate the item difficulty values and the importance of these sub-factors. This study regarded the seventh Thurstone threshold of each of the items, or sub-factors, as the cutoff point to judge whether participants considered a particular sub-factor to be important. For instance, when a participant chose an option within the sub-factor that was above this Thurstone threshold, it meant that he/she considered this item (i.e. sub-factor) to be important.

Participants' invitation for the qualitative part of this study. After completing the analysis of the quantitative data, we adopted purposive sampling to extend invitations to potential participants in the interviews to further clarify the Taiwanese students' perspectives toward studying abroad in NSPC. First, we used part of the Delphi technique (Okoli & Pawlowski, 2004) to set up a nominating panel with which we identified and nominated potential research participants, or the ones who expressed a higher willingness to study abroad and to share their experience. After completing the nomination process, we contacted these potential participants by phone, explained the research information to them, and confirmed whether they were willing to participate in this study.

Formal interviews. Before conducting the formal interviews with these participants, we reminded them about the interview procedure and their rights in this study. We also requested permission to record the interviews using pen recorders. A total of 6 Taiwanese students participated in these interviews. The duration of each interviews ranged from 60 to 90 minutes, with a mean duration of 72 minutes per interview.

Qualitative data analysis.

Data analysis. We transcribed the audio data and the second part of the questionnaire into verbatim transcripts. All verbatim transcripts were coded by two coders. They discussed the codes and concepts at regular intervals (Silverman, 2015). The intercoder reliability of this study was 0.82, which means it is positive for coding consistency (Sim & Wright, 2005).

The qualitative data analysis method introduced by Wolcott (2008) was adopted in this study. First, we focused on reading the interview transcripts in order to thoroughly understanding their meaning and content. Second, we coded the important concepts in these transcripts, such as poor academic quality and insufficient resources. Third, we compared the data with these concepts, and classified the important concepts into categories. For instance, the concepts were classified into the category 'academic factor'; Fourth, the relationships among categories were established. Eventually, the researchers developed the conceptual framework to obtain deeper understanding toward the phenomenon. For example, the structure of considering factor was established, which meant three factors, such as academic factor, economic factor, and personal factor were included in.

The quality of analysis. In this study, we adopted relevant approaches for ensuring the quality of the study in terms of its credibility, transferability, dependability, and confirmability, thereby enhancing the trustworthiness of the qualitative research (Merriam, 2002).

Credibility. We ensured that we had a sufficient understanding of the issues related to studying abroad, and respected all perspectives and responses of the participants in order to make them feel comfortable and more willing to share their experiences during the interview process. Moreover, we discussed the results of the analysis with colleagues at regular intervals in order to increase our understanding of what participants were expressing.

Transferability. We depicted the results of this study as clearly as possible and appropriately quoted participants' interview excerpts.

Dependability. To collect dependable data, the researchers recorded the interviews and then compared them with the verbatim transcripts to ensure that the transcripts were accurate before they were analyzed. In addition, we attached importance to the Audit trail, which means that the research methods, procedures, and processes of data analysis were clearly described in this study, thereby making the results transparent.

Confirmability. To ensure the confirmability of the results and to avoid any bias, the researchers adopted the following three techniques: reflectivity, peer debriefing, and member checks. Reflectivity makes researchers aware any potential bias in the study. Peer debriefing means that we discussed the results of the analysis with colleagues, thereby exerting the peer-check effect. We performed member checks after finishing the initial analytical results by sending them to the participants via email, thereby confirming whether their perspectives were fully represented by the results.

Results

Quantitative data

Quantitative data analysis is divided into three parts. First, we explored the important choice factors in the study abroad decision. Second, we broke down the main factor categories into sub-factors, and explored the importance of these.

Analysis of the main choice factors. The analysis of the results of the chi-square goodness-of-fit test indicates that there are significant differences in the importance of the main choice factors, with $\chi^2 = 92.93$, $p < .001$. Comparing the actual with expected numbers of these factors, we find that the most importance main factor category is that of academic factors, followed by the categories of economic factors and personal factors (Table 4).

Table 4 Main choice factors for considering studying abroad in NSPC

Factors	Actual numbers	Expected numbers
Academic factors	49	
Culture factors	9	
Political factors	4	23.8
Economic factors	40	
Social factors	2	
Personal factors	39	

Analysis of the choice sub-factors. As indicated above, the three main categories of factors that Taiwanese students consider when deciding whether to study abroad in NSPC are academic, economic, and personal. We further analyzed the importance of the sub-factors of these main categories.

After analysis, we found that the distribution of importance levels of the academic factors ($M = 1.50$, $SD = .70$) appears to be broader than the distribution of the item difficulties ($M = 0$, $SD = .13$), which means the academic factors is important to the participants. In this figure, the most important sub-factor (i.e. the lowest difficult item) is the programs in universities and colleges of NSPC (-.16 logits). The second to the fifth are the international and global extent of universities and colleges in NSPC (-.09 logits); the faculty structure of universities and colleges in NSPC (-.07 logits); the teaching equipment and learning environment of universities and colleges in NSPC (.03 logits); and the reputation of universities and colleges in NSPC (0.29 logits).

Moreover, the distribution of importance levels of economic factors ($M = .72$, $SD = .49$) is broader than the distribution of the item difficulties ($M = 0$, $SD = .23$), which means the

economic factors is also important to the participants. Among these sub-factors, we find that the most important sub-factor is whether Taiwan's government provides enough opportunities for scholarships for the students who want to study abroad in NSPC (-.42 logits). The second one is the tuition and fees of universities and colleges in NSPC (-.21 logits). The third one is the social security provided by NSPC's governments for the students who want to study abroad in NSPC (-.05 logits). The fourth one is the possibility of living in NSPC after graduation (-.05 logits). The fifth one is whether NSPC's governments provide enough opportunities for scholarships for the students who want to study abroad in NSPC (.26 logits). The last one is the extent of cost of living in NSPC (0.47 logits).

Furthermore, the distribution of importance levels of personal factors ($M = .76, SD = .45$) is also broader than the distribution of the item difficulties ($M = 0, SD = .34$), which means the personal factors is important to the participants. Notably, the most important sub-factor is whether one's self-vision and experiences can be expanded by studying abroad in NSPC (-.19 logits). The second most important sub-factor is the contribution of the study abroad experience for my future career development (e.g., pursuing higher education and employment) (.19 logits).

In conclusion, the main category of academic factors is the most important choice factor for Taiwanese students when considering whether to study abroad in NSPC, followed by economics, then personal factors.

Qualitative data

The qualitative results were drawn from interview data and an open question on the online questionnaire. It conformed with the above quantitative analysis results, thereby clearly showing the choice factors and attitudes of Taiwanese students toward studying abroad in NSPC. Three important choice factors are discussed.

Academic factors. Most students considered the category of academic factors as the most important when deciding whether to study abroad in NSPC. For these students, they thought that, except for universities and colleges in some NSPC such as Singapore, Australia, and New Zealand, the academic performance and resource investment of universities and colleges in most NSPC are generally not high in comparison to ones in the United States and European countries. For students whose goal of studying abroad is obtaining more opportunities to obtain a higher degree (e.g., doctoral degree) in the future, the academic reputation of universities and colleges in NSPC is of the utmost importance. They generally think that studying abroad in NSPC is not helpful for them to successfully apply for higher degrees in other countries. This is one of the reasons they are not willing to study abroad in NSPC. As Student D-072 expressed,

If I want to earn a master degree or doctoral degree by studying abroad, I will be less likely to earn the degree from these NSPC. This is because the academic reputations of universities in these countries are not well in comparison to the ones in America and European countries. If I can earn my master degree in America or European countries,

this will be helpful for me to apply for doctoral admission in other prominent universities around the world. Honestly, it is a practical consideration, and I have to make an appropriate plan for my future.

If the programs offered by universities and colleges of NSPC were more attractive to Taiwanese students, they would be more likely to study abroad there. Appealing programs include programs that are unique to these countries, programs which attract close government attention in these countries, and programs that can provide additional language learning opportunities such as in English or local languages. As Student F-077 said:

I think the sub-factor related to programs is important to me. Honestly, if I want to study abroad, the priority countries for me may be America or European countries. This is because the academic reputation, resources and program quality of universities in these countries are relative well. However, if I have to study abroad in NSPC under the circumstance of excluding some countries (i.e. Singapore, Australia, and New Zealand), the academic reputation of universities and colleges in these countries may not be the important considering factor to me. Instead, I think something really attracts me is whether there are some featured programs in these countries. For example, the development of the audio-visual industry in Thailand is well. It is different from the one in the countries with Chinese culture context. I think they successfully make their own style in the development of this industry, especially for creative advertisements. Therefore, the departments which are corresponding to this industry in Thailand are appealing for me to apply for, such as department of advertising and department of mass communication. (F-077)

Moreover, some participants also stated that they would attach importance to the level of internationalization of universities in NSPC because they expected to obtain more educational or internship opportunities in universities or institutions in other countries (e.g., countries around the world or in the new southbound area). In this way, they hoped that studying abroad would help them to broaden their horizons and accumulate relevant experience.

To sum up, it is worth noting that many students have limited understanding of the academic aspects of universities or colleges in NSPC, such as their prominent majors and features. Therefore, they merely rely on their stereotypes to evaluate the academic performance of these universities or colleges. This may eliminate their willingness to study abroad in these countries.

Economic factors. When it comes to economic factor, most students considered that, two sub-factors, whether enough opportunities of scholarship application can be provided and whether the tuition fee of universities or colleges in NSPC is cheap, will be taking into consideration when considering whether to study abroad in NSPC. In addition, they thought

that, under the circumstance of promotion of new southbound policy, the Taiwanese students, who want to study abroad in NSPC, are more likely to obtain more opportunities of scholarship application not only from Taiwan Government but also from some non-governmental institutions. This will enhance Taiwanese students' willingness toward studying abroad in NSPC. As a student A-066 mentioned that: *"Obtaining enough grants means that you do not have to worry about any problem related to money, instead, you can concentrate on your learning in there."* Moreover, most students have limited understanding of the local education system of these countries and relevant information cannot be found on internet easily, so they have no idea whether the tuition fee of universities or colleges in these countries will be the heavy burden to them. Therefore, they took this sub-factor into consideration. However, based on their impressions to NSPC, they generally thought that, tuition fee of universities or colleges in these countries may be cheaper than other countries such as England and the United States, which are the preference of Taiwanese students. Hence, this sub-factor is appealing to them when considering whether to study abroad in these countries. As Student F-114 pointed out that:

I think the tuition fee will be the important considering factor. However, I think these NSPC have great competitiveness as to this factor. You know...compared to the expensive tuition fee in England or America, I believe that the tuition fee in NSPC is not more expensive than ones in America and England. For instance, Vietnamese government developed a free graduate program before, right? This is really an incentive to me. (F-114)

It is worth noting that, most students also mentioned if governments of NSPC can make a guarantee that international students who graduated from local universities in NSPC have more opportunities of working in these countries, this may be the important considering sub-factor for them to study abroad in these countries. Especially, this sub-factor is more important to the students who want to search for jobs after graduation. Moreover, they emphasized that, if both salary and future development of these employments could be better than ones in Taiwan, this will enhance their willingness regarding studying abroad in these countries more. However, if there is no any guarantee for job opportunities, it may have impact on their willingness toward studying abroad in these countries. As Students D-033 mentioned that:

If I can find a job there successfully after my graduation, it will be the important factor for me to study abroad there. Especially, if its salary is twice than the one in Taiwan, I definitely will study abroad there. I remember an experience that, I was an international volunteer in a Malaysian elementary school two years ago. At that time, I taught the guidance curriculum there. After finishing my instruction, the school principal came to me and asked me that whether I am willing to work there after I earn my bachelor's degree because they did not have any professional to teach guidance there. More

importantly, he was willing to give me a double salary for my work per month. This is really fascinating to me although I did not agree on it eventually. (D-033)

Personal factors. Most students attached importance to whether their experiences can be broadened by studying abroad in NSPC. Notably, most students had a positive perspective toward this sub-factor. They thought that no matter which host country they chose, the experience would be an important one. They thought that studying abroad would give them more opportunities to live and learn together with local and other international students. They saw these experiences as being quite different from their experiences in Taiwan. Therefore, they believed these experiences would assist them to broaden their horizons. As Student A-092 stated:

If I can possess the opportunity of studying abroad, I want to go there and observe how they cultivate their students. For me, I think their learning environment is good for them to cultivate various competencies. Take language learning as an example, they can speak not only their mother language well but also other languages. I want to experience and have a look to this environment. If I can interact with the local students there for a long time, I will obtain more understanding of their cultures and value systems. These all are helpful for broadening my horizon.

In addition, some students mentioned that an important consideration is whether studying abroad in NSPC would be beneficial for their future career development (i.e. employment). As Student E-094 said:

If we want to study abroad, something definitely should be considered is whether earning the degree (i.e. diploma) is beneficial for your future career development? If you can obtain the same benefits by studying in Taiwan, why you have to study abroad in other countries?

Notably, this sub-factor is more important for the students who want to search for jobs after graduation.

Given that Taiwan's government is promoting the NSP and NSPC are experiencing a period of strong economic development, if more students chose to study abroad in those countries, they could gain greater understanding of aspects such as culture, habits and customs, national development, educational policy, language usage, etc. This would be beneficial for students to obtain more future employment opportunities after graduation, whether in Taiwan or NSPC. Accordingly, they considered this a benefit of studying abroad in NSPC. As a student A-017 shared:

Currently, many countries around the world are investing in NSPC; therefore, not only the situations of economic development there are vigorous, but also talents around the world are gathering there. I think if I can study in these NSPC, perhaps I could establish my social networking there. More importantly, because I can learn these local languages

and have well adaptation there during the process of studying abroad, I have an advantage over others who do not study abroad there. These may be helpful for me to find jobs after graduation, and I think it is a good decision for my future career development. (A-017)

Discussions and Conclusions

This study adopted a mixed methods approach to exploring Taiwanese students' attitudes and choice factors regarding studying abroad in NSPC. The results revealed that Taiwanese students generally have low willingness to study abroad in NSPC, except for Singapore, Australia, and New Zealand. Moreover, among six main categories of factors, three categories – academic, economic and personal - are more important to Taiwanese students than the other three factors – social, political and cultural – when considering whether to study abroad in NSPC.

Why are social factors not a high priority for Taiwanese students when considering studying abroad in NSPC? There are several possible explanations. First, Taiwan is not that far from most southbound countries. In addition, the climate conditions in these countries are like those in Taiwan. Hence, Taiwanese students may not consider these factors to be very influential in their decision about whether to study in these countries. Second, because the number of Taiwanese students who study abroad in NSPC is low, and even declining, Taiwanese students who study abroad in these countries cannot easily establish interpersonal networks. This reduces the impacts of reference groups, for example friends and older brothers or sisters who are studying in universities in NSPC, in attracting Taiwanese students to study there, as well (James-MacEachern & Yun, 2017). Therefore, they do not regard this sub-factor as important when considering studying abroad there.

There are also several possible explanations for why political factors do not play a significant role in students' decisions either. The status of diplomatic relations between home country and host country is the main sub-factor in the category of political factors. Although there are not formal diplomatic relations between Taiwan NSPC, people-to-people contact, economic relations and trade between Taiwan and NSPC are significant. The number of Taiwanese who travel to NSPC was 2.47 million in 2017, which accounted for 15.81% of the outbound travel of Taiwanese. Moreover, among the total number of inbound visitors, the number of tourists from NSPC accounted for 21.27% of tourists to Taiwan in 2017. Taiwan is the tenth largest export market and seventh largest import market for ASEAN (Jing, 2018). The movements of people, as well as goods and services indicate strong relations between Taiwan and NSPC. Therefore, the status of diplomatic relations is not a very important factor to Taiwanese students when considering studying abroad in NSPC.

As for the most important category, academic factors we found that Taiwanese students generally have not only limited understanding of the relevant academic aspects of universities

and colleges in NSPC, but also consider the academic reputation or performance of these institutions to be sub-standard in comparison to universities and colleges in the United States and Europe. This has a negative impact on their willingness to study abroad in NSPC. However, the results of this study are different from those of a previous study conducted by Ma (2014). Ma found that academic factors are not important for students of developed countries who want to study abroad in developing countries. In this regard, we argued that, because Taiwan remains a diplomaism country (Chang & Lin, 2003), Taiwanese students still attach importance to academic aspects of the universities and colleges of host countries (e.g., academic reputation, academic performance, investment in education, the value of diploma, etc.)

We also found that the programs or courses offered by universities and colleges in NSPC to be important choice factors. Taiwanese students attached importance to the provision of English courses and programs. This is because most Taiwanese students are not familiar with the local languages of NSPC, as opposed to English. If they want to study in these countries, improving their English language skills may be a way for them to learn and to communicate with other international students more easily while studying abroad. Although they expressed preferences for English courses, we also found that they also expected to learn local languages through courses provided in universities and colleges of NSPC. This is probably because NSPC are currently experiencing rapid economic growth. The World Economic Forum anticipates that collectively, ASEAN will become the fifth largest economy in the world by 2020 (Cheok, 2017; Tso & Jung, 2018). Therefore, if universities and colleges in NSPC provide some opportunities to learn local languages, Taiwanese students might be attracted to the opportunity to accumulate language and cultural capital in these NSPC, thereby enhancing their opportunities to remain in these high-growth countries after graduation (Xu & Xu, 2015).

The results of this study indicate that personal factors are also important for students' decisions to study abroad in NSPC. They generally expected that such a study abroad experience could broaden their horizons and expand their future career opportunities. In this regard, a previous study indicated that studying abroad could be helpful for students in accumulating cultural and social capital in host countries. (Jupiter et al., 2017). Therefore, this factor may be beneficial for students who want to study abroad in NSPC, especially for the students who want to search for jobs after graduation.

Finally, the results of this study indicate that economic factors are also important for Taiwanese students' willingness to study abroad in NSPC. Whether or not they could receive enough scholarships or grants is an important consideration for their decisions. These results are consistent with those of a previous study conducted by Ma (2014). This study found that Taiwanese students also attached importance to whether their job prospects in NSPC were improved after graduation. The above factors tended to be given greater consideration if the

Taiwanese government is to be successful in encouraging more Taiwanese students to study abroad in NSPC.

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