Abstract—The research objective of this study was to investigate gender, nationality, field of study, foreign language abilities, international travels, study abroad and foreign friends as predictive factors of intercultural sensitivity of freshmen from an international college in Bangkok, Thailand. The sample was 209 first-year undergraduate students. The sampling method was convenience sampling. The research instrument consisted of a demographic questionnaire and the Intercultural Sensitivity Scale (ISS). The results of Stepwise Multiple Regression Analysis showed that nationality and having international friends were the predictive factors of intercultural sensitivity for the study sample. The other variables, namely, gender, field of study, foreign language abilities, international travels, and study abroad did not contribute significantly to the multiple regression models.

Index Terms—Foreign language, friendship network, intercultural sensitivity, international college, study abroad.

I. INTRODUCTION

In 2007, Bhandari and Koh [1] noted that over 2.5 million tertiary level students were studying in countries other than their passport nations. In 2011, the number of international students was estimated to be over 3.8 million [2]. Consequently, it is argued that universities have increasingly become a multicultural and international place where the need for interacting properly and effectively with culturally different others has become of paramount importance. However, the work of Burns, Nesdale and Todd, Quintrell and Westwood, and others [3]-[8] converges on the premise that culturally different people do not readily mix; rather, they prefer to network with people from a similar cultural background. Moreover, literature on interaction between international and domestic students worldwide converges to indicate that the amount of intercultural interactions is generally low [7], [9], [10]. Therefore, in tune with Knight and de Wit [11], it can be argued that if such attitudes are generalized it is unlikely that the internationalization of higher education will achieve its major educational aim of preparing students “to function in an international and inter-cultural context in the future”. Ergo, the international and intercultural setting at the higher education calls for the need of interculturally sensitive students.

Among scholars, there is a large discussion on what intercultural sensitivity means, implies and embraces [12]-[14]. The work of Bennett and others [15]-[18] provides a wealth of literature on intercultural sensitivity and its historical development. For the purpose of this study intercultural sensitivity is understood as the “active desire to motivate [oneself] to understand, appreciate and respect differences among cultures” [19]. This definition embraces not only a person’s ability to recognize differences in beliefs, values, and perceptions across cultures, but to be able to project positive emotion that shows understanding, respect, and acceptance of cultural differences when interacting with culturally different others. In line with this definition, it has been argued that intercultural sensitivity is a forerunner for successful intercultural encounters [20].

Extensive research has been done to recognize factors favoring intercultural sensitivity. In reviewing literature on this topic, personal and demographic elements recur. For instance, a study [21] compared the intercultural sensitivity of female and male students in an international class setting. The researchers found that the difference in intercultural sensitivity between these two groups was not significant in a pre-training test. However, post-training data showed that females exhibited more intercultural sensitivity than males. Moreover, in the ethnorelative stage (higher level of intercultural sensitivity on the intercultural development inventory) the difference in intercultural sensitivity based on gender reached significance with females scoring higher than males. Another interesting analysis carried out by the researchers was the comparison of intercultural sensitivity between Americans and non-American students. Data indicated no significant differences between the two groups in the pre-training condition. However, the post-training test revealed that participants with no prior intercultural experience were less interculturally sensitive than those with intercultural experience. The difference between these two groups reached significance at the post-training test.

Westrick [22] studied the relationship of gender on intercultural sensitivity. The study reported that female students exhibited higher intercultural sensitivity than males. The study findings did not claim, however, a causal relationship between being female and intercultural sensitivity.

The work of Williams [23] investigated the effect of study abroad programs on students’ intercultural competence. Findings revealed that students who studied abroad generally showed a greater increase in intercultural communication skills than the students who did not study abroad. The results also indicated that exposure to different cultures was the greatest predictor of intercultural communication skills.

Another study [24] investigated the effect of study abroad on the development of students’ intercultural sensitivity. The study found that students who participated in a 4-week study abroad significantly improved their level of intercultural sensitivity as measure by the intercultural development
McMurray [25] analyzed the impact of gender, student status (domestic vs. international students), international travels, and study abroad on intercultural sensitivity. Result of her study found no significant difference in intercultural sensitivity between males and females. However, the author reported that females tended to score higher than males. Regarding domestic and international students, the author found no significant difference in the level of intercultural sensitivity between the two groups. However, international students tended to score higher than domestic students. Regarding the effect of international travel on intercultural sensitivity, data suggested some statistically significant effect on the student’s intercultural sensitivity: domestic students with international travel experience did have a higher level of intercultural sensitivity than domestic students without international travel experience. Regarding study abroad, the author reported no significant difference in the level of intercultural sensitivity between students who have participated on study abroad programs and students who have not.

Lyttle, Barker, and Cornwell [26] studied the effect of living abroad on individuals’ intercultural sensitivity. They reported that people living in a country other than their nationality have significantly higher social sensitivity than local or mono-culture individuals.

Margarethe, Hannes, and Wiesinger [27] investigated the effect of gender, field of study, and foreign language abilities on students' intercultural sensitivity. The study reported that there were no significant differences in intercultural sensitivity between male and female students. However, they found a significant difference in intercultural sensitivity between two different programs, one containing intercultural aspects, and another without intercultural aspect). Data showed that students from the program with intercultural aspects tended to be more intercultural sensitivity than their counterparts from the program without an intercultural profile. The researcher also found that there were not significant differences in intercultural sensitivity based on foreign language ability.

The difference in intercultural sensitivity based on gender, country of origin, educational background and foreign language abilities was also investigated by Ruiz-Bernardo, Ferrández-Berrueco, and Sales-Cigés [28]. The study reported significant difference in intercultural sensitivity between males and females. The data showed that females had higher mean score than males. The study also reported significant difference in intercultural sensitivity between local people and foreigners, meaning that foreigners scored higher than locals. Contrary to the findings of Ruokonen and Kairavuori [29], Ruiz-Bernardo et al. [28] reported a significant difference in intercultural sensitivity based on foreign language abilities. Data showed that the multilingual group members (people who were able to speak more than four languages) were much more interculturally sensitive than the monolingual and bilingual groups.

Recently, Huang [30] studied the intercultural sensitivity of two group of students majoring in Nursing and Healthcare. Data reported weak support for the impact of educational background on intercultural sensitivity. That is, the difference in intercultural difference among the two groups reached significance only on one of the five dimensions of the intercultural sensitivity scale, to wit, “Respect for cultural differences”. In this dimension, students from the Nursing Department scored significantly higher than their counterparts from the Department of Nutrition and Healthcare.

Studies on interaction among culturally different students and the opportunities to build meaningful relationship with people from other cultures has showed not to be an easy process. The work of [3]-[8] concluded that culturally different students do not readily mix; rather, they prefer to work with people a similar cultural background. Moreover, it was reported that local and international students did remain reluctant to mix after a successful cross-cultural training [8]. In accord with Knight and de Wit [11] if such attitudes are generalized it is unlikely that the internationalization of higher education will achieve its major educational aim of preparing students “to function in an international and inter-cultural context in the future”.

Recently, the work of Summers and Voslet [10] suggested that students’ preference for intercultural interaction not only decreased over time, but becomes more negative from first year to second and third year among undergraduate students. Literature shows that the lack of interaction between culturally different people is not just an isolated phenomenon or a trait of just some people from some specific cultures. Rather, it is a common tendency that has been registered worldwide, i.e., in Israel, Japan, New Zealand, Scotland, the UK, and the United States [10].

Contrasting the myriad of studies comparing the intercultural sensitivity of different groups, there is however a reduced number of studies investigating the predictive factors of intercultural sensitivity. For instance, Bhawuk and Brislin [20] carried out a study to identify predictive factors of intercultural sensitivity of domestic and international students from the University of Hawaii. The sample size was 46 MBA students, and 93 graduate students. The researcher tested 10 demographic variables: age, gender, length of work experience, length of study abroad, number of language spoken, numbers of foods tried, music, friends from different cultural background, confidence to live in another culture, and interest in working with people from different cultures. Results of the multiple regression showed that only three of the 10 demographic variables, namely, interest in working with people from different cultures, number of different ethnic foods tried, and number of years spent abroad, were found to be significant predictors of intercultural sensitivity.

Recently, Fabregas, Kelsey, and Robinson [31] conducted a research to investigate if age, gender, major, college, place of birth, experience living in a multicultural environment, traveling abroad, learning another language, study abroad, and international design courses were related to the development of intercultural sensitivity. Contrary to Bhawuk and Brislin’s [20] findings on gender, their results showed that only gender could predict intercultural sensitivity. Factors such as age, major, college, place of birth, experience living in a multicultural environment, travelling abroad,
learning another language, study abroad and international design courses had negligible effect on students’ intercultural sensitivity. Therefore, the researchers concluded that the study variables were not adequate predictors of intercultural sensitivity.

Personal and intercultural experience factors have been highlighted as important factors that promote and predict intercultural sensitivity. It has been also pointed out that scholarly findings regarding these variables are ambivalent and inconclusive. Hence, these conflicting results make a strong case for examining these variables effects further. Therefore, the research objective of this study was to investigate the predictive factors of intercultural sensitivity of freshmen from an international college. The results of the Stepwise Multiple Regression Analysis showed that nationality and foreign friendships were the predictive factors of freshmen’ intercultural sensitivity.

II. METHODOLOGY

A. Participants

The population of the study was freshmen enrolled in the academic year of 2013 (N=814). The sample size was 268, however, only 209 freshmen participated in this study. The researcher used convenience sampling to recruit subjects as part of the classroom setting. Of the 209 students, 39 were from Arts, 48 from Science, and 122 students were from the Business Administration program (see Table I).

B. Research Instrument

The research instrument for this study contained two sections: 1) demographic information, and 2) The Intercultural Sensitivity Scale (ISS).

1) Demographic information section contained questions concerning student’s personal information such as gender, nationality (which was requested to indicate if the student is a domestic or international student), as well as their major (which was requested to get their field of study), and foreign language abilities. There also were three questions about their international travel experience, whether they have studied abroad, and whether they have foreign friends.

2) The Intercultural Sensitivity Scale (ISS) is a 24-item questionnaire developed by Chen and Starosta [19].

C. Limitation of the Study

This study is limited by the sole use of a quantitative approach, a single research instrument and small sample size. Moreover, the scope of intercultural sensitivity was restricted to Chen’s [17] model of intercultural sensitivity which mainly deals with the affective dimension of intercultural communication competence. Hence, the findings do not allow for any firm generalizations beyond the sampled students and institution.

III. RESULTS

A. Descriptive Statistics

| TABLE II: FREQUENCY AND PERCENTAGE OF FRESHMEN’S PERSONAL INFORMATION (N=209) |
|-----------------|-------|-------|
| Gender          | Frequency | Percentage |
| Female          | 145     | 69.4   |
| Male            | 64      | 30.6   |
| Students’ nationality |       |       |
| Thai            | 164     | 78.5   |
| Foreigner       | 45      | 21.5   |
| Field of study  |         |       |
| Bachelor of Arts (B.A) | 39     | 18.7   |
| Bachelor of Sciences (B.Sc.) | 48   | 23.0   |
| Bachelor of Business Administration (B.B.A) | 122 | 58.3   |
| Foreign language ability |           |       |
| Monolingual     | 17      | 8.1    |
| Bilingual       | 142     | 67.9   |
| Trilingual      | 44      | 21.1   |
| Multilingual    | 6       | 2.9    |
| International travel experience |       |       |
| No travel abroad | 7      | 3.4    |
| Travel abroad once | 22     | 10.5   |
| Travel abroad several times | 180 | 86.1   |
| Study abroad (domestic students only n=164) |       |       |
| No              | 70      | 42.7   |
| Yes             | 94      | 57.3   |
| International friendship(s) |       |       |
| No              | 116     | 55.5   |
| Yes             | 93      | 44.5   |
| Total           | 209     | 100    |

B. Stepwise Multiple Regression Analysis

The researcher hypothesized that at least one of the seven factors of this study could predict freshmen intercultural sensitivity. Therefore, gender, nationality, field of study, foreign language ability, international travels, study abroad, and international friendships were combined to see which ones could be included in a model to predict intercultural sensitivity.

It was found that nationality was the first factor that had been selected into the model, and had the highest influence toward intercultural sensitivity (β = .282). Nationality could predict 10.0% of freshmen’s intercultural sensitivity with statistical significance at the .001 level (Table III).

| TABLE III: PREDICTIVE FACTORS OF FRESHMEN’ INTERCULTURAL SENSITIVITY (2009) |
|-----------------|-------|-------|-------|-------|
| Factor          | β     | t     | R²    | R² change | F change |
| Model 1         | .28   | 4.29*** | .314 | .109 | 22.66*** |
| Model 2         | .19   | 2.96** | .368 | .136 | .036      |

Model 1: Nationality; Model 2: Nationality and International friends

* sig at the .05 level, ** sig at the .01 level, *** sig at the .001 level

The second factor that influenced freshmen intercultural sensitivity was international friendships. As a result, it demonstrated that having international friendships positively influenced intercultural sensitivity at (β= .195), with statistical significance at the .001 level. Both nationality and international friendships combined together could predict 13.6% of freshmen’ intercultural sensitivity at the p < .001 level.
level. As shown in Table III, nationality and international friendships had significant positive regression weights, indicating that nationality and students with foreign friends can significantly predict freshmen’s intercultural sensitivity. Gender, field of study, foreign language ability, international travels, and study abroad did not contribute significantly to the multiple regression models. Hence, this finding supports the study’s hypothesis.

IV. DISCUSSION

Seven variables, namely, gender, nationality, field of study, foreign language abilities, international travels, study abroad and international friendships were combined to see which ones could be included in a model to predict intercultural sensitivity. Results of the stepwise multiple regression analysis showed that nationality and having international friendships served as significant predictors of freshmen’s intercultural sensitivity.

Through these results, it was found that nationality is the first factor that was selected into the model and had the highest predictive influence toward intercultural sensitivity at \( \beta = .282 \). Nationality (being a foreigner at the college) could predict 10% of freshmen’s intercultural sensitivity at the statistically significant level of .001. Nationality combined with having international friendships influenced freshmen’s intercultural sensitivity at \( \beta = .195 \). Both factors together could predict \( R^2 = .368 \) of freshmen’s intercultural sensitivity at the statistically significant level of .001, and accounted for 13.6% of the variance of freshmen’ intercultural sensitivity \( (R^2 = .136, \text{adjusted } R^2 = .127) \). It demonstrated that international friendships could increase the amount of variance explained by 3.6%. The data also revealed that nationality was the most powerful predictor of freshmen intercultural sensitivity. Factors such as gender, field of study, foreign language ability, international travel, and study abroad had negligible effects on freshmen’ intercultural sensitivity.

Previous research supports these study findings. The work of Del Villar [32] and Wu [33] can be used to support the findings claiming that nationality can predict freshmen’ intercultural sensitivity. Del Villar [32] surveyed a heterogeneous group of Filipino college students and through multiple regression analysis the author reported that the amount of exposure to a host country was statistically significant in predicting intercultural sensitivity of Filipino college students. In the same line, Wu [33] surveyed 85 participants from two different majors at a private college located in the east of Taiwan. Results generated by stepwise multiple regression indicated that the experience of living abroad can effectively predict the participants’ intercultural sensitivity. Both researchers describing the foreigners’ intercultural sensitivity found that foreigners tended to have a higher level of foreign language learning motivation, and were more willing to accept foreign cultures.

As for having international friendships predicting intercultural sensitivity, the work of Pritchard and Skinner [34] and Tanaka et al. [35] can be used to support our study finding. Pritchard and Skinner [34] developed cross-cultural activities aimed to foster intercultural relationships among reluctant students to mix with culturally different others. Their study surveyed 94 students (21 domestic students and 73 international students). Their results suggested that the lack of host friends is a signal of failure in the process of adaptation and adjustment to the host culture. Data also showed that these cross-cultural activities created optimum conditions for an intercultural encounters. Their study also proved that through the use of cross-cultural activities among culturally different students it was possible to bring together and retain contacts between international and domestic students. More important yet, students were able to forge meaningful relationships during the program and felt welcome in the host culture.

These findings also cohered with the finding of Tanaka et al. [35]. These researchers surveyed 221 international students in Japan. Results suggested that international friendships do facilitate the adjustment process to the host culture or country. Researchers argued that individuals with friends from the host culture receive support and learn from them first hand appropriate behavioral patterns that enable them to function in the host culture. Consequently, their effective adjustment is facilitated by such intercultural friendships.

V. CONCLUSION

Gender, nationality, field of study, foreign language ability, international travel, study abroad, and international friendship were combined to discover which ones could be included in a model to predict freshmen’ intercultural sensitivity. Findings of the regression analysis indicated that nationality alone could influence the freshmen’ intercultural sensitivity at \( \beta = .282 \) with statistically significance at the .001 level. Nationality (being a foreign student) accounted for 10% of the variance of freshmen’s intercultural sensitivity.

The second factor that influenced freshmen’s intercultural sensitivity was international friendships. Data showed that international friendships influenced freshmen’s intercultural sensitivity at \( \beta = .195 \) with statistical significance at the .001 level. Both nationality and international friendships together accounted for approximately 13.6% of the variance of the freshmen’s intercultural sensitivity at the .001 level. The other variables, namely, gender, field of study, foreign language ability, international travels, and study abroad did not contribute significantly to the regression model. Building on these two findings, we recommend that college students be provided with intercultural courses in order to widen and enrich their worldview repertoires. These courses should engineer cross-cultural activities and skills for coping with uncertainty and anxiety that enable students to go beyond mere contact, and to encourage them to forge meaningful and long-lasting relationships with culturally different others.

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