Investigating Socio-Cultural Adaptation of International Students in Indonesian Higher Education

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Abstract—**Positioning higher education in some degree of international standard has been done by many governments by setting internationalization agenda through various programs. In realizing the agenda, challenges emerge since students joining the program – the international students – need to adapt not only to academic but also social life. Adjusting to a new socio-cultural environment is intriguing for there are just too many factors playing roles in human social interaction. The challenge escalates when multicultural issues take part in the society in which the interaction takes place. Many studies have been conducted to analyze multicultural interactions in human social life. Some perimeters have also been developed to facilitate the analysis. However, very limited studies are conducted in Indonesian context which is rich of multicultural interaction. Thus, this study is aimed at investigating international students' socio-cultural adaptation in Indonesia when they are studying at Indonesian higher education. Focusing on the correlation between their intercultural sensitivity and their socio-cultural adaptation, the study reveals that there was less significant relationship between the variables. As further investigation were conducted to find possible reason of such relationship, it was found out that two out of five factors constructing the intercultural sensitivity scale did not show significant relationship to the variable while all the five factors constructing socio-cultural adaptation scale were significantly related. Therefore, re-visiting the intercultural sensitivity scale is suggested**.

Keywords—international students, Indonesian higher education, socio-cultural adaptation, intercultural sensitivity, correlation

I. INTRODUCTION

Internationalization within higher education institutions has been growing rapidly as the institutions shift from executing strategies to gain equality in all aspects to developing well-planned internationalization agendas which involve students and staff mobility, international students' recruitment, research collaborations, and capacity-building [1]. In Asia, Indonesia is one of countries in ASEAN region that stands as a model for ASEAN International Mobility for Students [1]. The interest of foreign students studying in universities in Indonesia continues to increase. Ministry of Research Technology and Higher Education Republic of Indonesia [2] inform that throughout the year 2016, as many as 6.967 License of Learning has been published by the Directorate of Institutional Development of Higher Education.

The growing numbers international students studying at Indonesian universities require the institutions to focus not only on the academic aspects, but also on matters related to their stay and comfort. While international student look more satisfied with the stay in the country abroad than with the quality of their studies abroad[3], facts show that during their study in Indonesia, international students faced difficulties in adapting with their social life due to multi-language used and ways of life of local people which are heavily loaded with multicultural issues[4]. Hapsari & Hamamah (2019) [5] also revealed that the students were still highly dependent on their home country's community group to support them during the socio-cultural adaptation as programs, services, and facilities that support their adjustment process outside the campus seem to need major improvements. Another concerning evidence is that institutional supports providing academic and socio-cultural adaptation assistance have – so far – only been provided by higher education institutions[6]. This emerges additional challenge for international students who bring along their family during their study. For example, in Malang – a city in East Java which is famous as educational destination due to the many prominent universities in the city – a Libyan graduate student community found it difficult for them to get Libyan-based-education for their children. They ended up renting a place to provide such education. Even though there are some schools aimed at serving international students in the city, the absence of proper transition programs for students coming from various countries become a concern [6]. All of these adversities bring direct impact to the internaional students' academic focus and performance.

Establishing programs assisting international students in adapting with a new socio-cultural setting is, however, an arduous effort. Edwards & Ran (2006) [7] argued that studies on learning experiences of the international students in their host countries usually involve features such as cultural, psychological, social and academic adjustments. These features play complex roles in human social interaction, not to mention when multicultural issues take part in the interaction. Nevertheless, Benson (2015) [1] argued regardless the belief that study abroad and other international experiences are widely considered to be valuable for students, and to develop a wide range of soft skills such as inter-cultural communication, there has not always been a strong empirical evidence base to support efforts to broaden student internationalization.

As people from all around the world are interacting more intensively nowdays, concern on individual's socio-cultural competece keeps getting more and more highlight as the

socio-cultural competence is a guarantor of effective cross-cultural communication. It is understood that "socio-cultural competence is a possession of and the ability to apply a set of multicultural knowledge, skills and qualities in the process of intercultural communication in the specific conditions of life and tolerance towards people of other nationalities."[8]. Intercultural communication, which is needed by international students, needs intercultural communication competence, which is an ability to execute communication behaviors appropriately and effectively in a culturally diverse environment [9]. As a part of intercultural communication competence, intercultural sensitivity is assumed to be one of key roles in the success of intercultural communication as it is the affective concept of intercultural communication aside from intercultural awareness as the cognitive concept and intercultural adroitness as the behavioral concept [9]. Previous studies on social relationships (such as friendship patterns, housing and other accommodation facilities) have found that international students who successfully formed social ties with their local communities have reported higher satisfaction [10]; [11]).

In Indonesian context, a study by Hapsari & Hamamah (2019) [5] reported that most international students in a higher education institution got support from their country community group instead of receiving it from the host country regardless the fact that they are ready to meet people from different culture and never experienced negative treatment from local people. It is in line with Ward & Masgoret's (2004) [12] argument stating that international students prefer to spend more than sixty per cent of their academic tenure with students of the same country. Although it is comparable with the Social Identity Theory [13], which professes that individuals will strive to maintain their positive self-esteem through group membership, it can also be inferred that that intercultural communication has not yet been successfully taken place during the socio-cultural adaptation process of the international students.

As many possible factors may contribute to the dependency of the international students' social life on the support from their country community groups, Indonesian multicultural society is one of prominent aspects worth investigation. The multicultural society demands every individual to possess intercultural sensitivity to be able to successfully adapt to the multicultural society as what was argued by Chen and Starosta (1997) [14] that intercultural sensitivity is an ability to develop a positive emotion as the key in understanding and appreciating cultural differences in the intercultural communication.

Taking the aforementioned explanation into account, this study is aimed at investigating international students' socio-cultural adaptation process in Indonesian higher education focusing on its correlation with intercultural sensitivity of the students. Further elaboration related to the extent of correlation among factors contributing to sociocultural competence as well as to intercultural sensitivity of the international students was conducted to provide empirical evidence as a consideration of revisiting conceptual construct of the relationship between intercultural sensitivity and sociocultural competence.

II. MATERIALS AND METHODS

A. Research Instruments

To achieve the objective of the study, two questionnaires were put into use to gather quantitative data from 38 international students studying in Indonesia. The questionnaires were Revised Sociocultural Adaptation Scale (SCAS-R) developed by Wilson (2013) [15] and Intercultural Sensitivity Scale (IS scale) developed by Chen & Stratosa (2000) [16]. Each of the questionnaires comprises five constructive factors with item distribution for each scale as shown in Table 1. and Table 2. respectively.

TABLE 1. ITEM DISTRIBUTION OF SCAS-R

SCAS-R Subscales	Items in the questionnaire
Interpersonal Communication	1, 3, 6, 11, 13, 16, 21
Academic Performance	2, 7, 12, 17
Personal Interests & Community Involvement	4, 8, 14, 18
Ecological Adaptation	5, 9, 15, 19
Language Proficiency	10, 20

The SCAS-R questionnaire was used to get the international students' score on their sociocultural adaptation competence seen from five subscales namely Interpersonal Communication, Academic Performance, Personal Interests & Community Involvement, Ecological Adaptation, and Language Proficiency. The questionnaire consists of 21 items with 5-point Likert's scale. Table 1 shows the number of items as well as the items distribution of each factors in the scale.

TABLE 2. ITEM DISTRIBUTION OF IS

IS Factors	Items in the questionnaire
Interaction Engagement	1, 11, 13, 21, 22, 23, 24
Respect for Cultural Differences	2, 7, 8, 16, 18, 20
Interaction Confidence	3, 4, 5, 6, 10
Interaction Enjoyment	9, 12, 15
Interaction Attentiveness	14, 17, 19

Table 2 shows IS scale developed by Chen & Starosta (2000) [13] as the second questionnaire used in this research. The questionnaire consists of 24 items with 5-point Likert's scale embracing 5 factors namely Interaction Engagement, Respect for Cultural Differences, Interaction Confidence, Interaction Enjoyment and Interaction attentiveness. The international students' score related to the five factors of their intercultural sensitivity was revealed as they responded to the questionnaire.

B. Research Procedure

The international students' scores related to their sociocultural adaptation competence and their intercultural sensitivity collected using SCAS-R and IS scale questionnaires via Google form were obtained from 38 international students coming from Madagascar, Sudan, Tajikistan, Thailand, Vietnam, Korea Selatan, USA, Japan, Tunisia, China, Czech Republic, Egypt, and Cambodia participated on voluntarily basis.

The research procedures were divided into five major steps. The first step was preparation where the researchers prepared questionnaires as well as making the schedule for collecting the data. After that, the writer determined the participants and set timeline for the feasibility of data collection. Then, the SCAS-R and IS scale questionnaires were distributed to the participants via Google form. At the determined due date, all responses from the participants were collected and scored. The fouth step was the statistical computation to find out the correlation of the two variables using Pearson Correlation Coefficient to compute scores derived from SCAS-R and IS by employing SPSS. Correlations among each factor of both variables were investigated using PLS regression to seek more detail empirical data to contribute to concept development related to relationship among intercultural sensitivity, intercultural communication, and sociocultural competence of international students in higher education institutions. Finally, the result of the correlation between the international students' sociocultural competence and intercultural sensitivity was obtained.

III. RESULTS AND DISCUSSION

A. Correlation between Sociocultural Competence and Intercultural Sensitivity

Learning from many studies that have been conducted to analyze multicultural interaction in human social life, some perimeters have eventually been developed to facilitate the analysis. However, few have been done to provide empirical data resulted from the implementation of the measurements. This study is aimed at finding out empirical data when some of the perimeters were put into use.

Questionnaire of Revised Sociocultural Adaptation Scale (SCAS-R) developed by Wilson (2013) [15] and Intercultural Sensitivity Scale (IS scale) developed by Chen & Stratosa (2000) [16] were selected based on the understanding that formed socio-cultural competence is a guarantor of effective cross- cultural communication in the process of intercultural communication in the specific conditions of life and tolerance towards people of other nationalities [8].

Involving 38 international students from 13 different countries, a correlational study was employed to see the relationship between the international students' sociocultural competence and their intercultural sensitivity.

The students score obtained from their responses toward the SCAS-R and IS scale were calculated using Pearson Product Moment correlation since the relationship between the variable is in two way (one affect another in reciprocal way). Table 3 shows the result of the statistical computation in finding out the correlation between the international students' sociocultural adaptation and their intercultural sensitivity.

TABLE 3. CORRELATION BETWEEN ACAS-R AND IS SCORES

		Sociocultural	Intercultural
Sociocultural	Pearson Correlation	1	,291
	Sig. (2-tailed)		,076
	N	38	38
Intercultural	Pearson Correlation	,291	1
	Sig. (2-tailed)	,076	
	N	38	38

The statistical computation resulted on *p* value of .291 with significant level of 0.076. It means that though the correlation coefficient is positive ($p = 0.291$), the relationship is not significant since the significant level is higher than 0.05. Therefore, it can be understood that the international students' sociocultural competence and their intercultural sensitivity has no significant correlation. This fact seems not to support Safina's (2013) [4] argument stating that socio-cultural competence is a guarantor of effective cross-cultural communication. At least, in this study Intercultural Sensitivity which is one of the three construct of intercultural communication does not show significant relationship with sociocultural competence. Therefore, more comprehensive investigation on the correlation between all factors comprised by the three constructs of communicative competence needs to be done in other studies.

B. Correlation Among Factors Constructing Socio-cultural Competence and Intercultural Sensitivity

As suggested in the stages of the research, the second statistical computation was employed to scrutinize the correlation among factors constructing each variable. There were three steps conducted. The first was finding correlation among SCAS-R factors namely Interpersonal Communication, Academic performance, Personal Interests & Community Involvement, Ecological Adaptation, and Language Proficiency. The second was ascertaining relationship among factors constructing IS scale namely Interaction Engagement, Respect for Cultural Differences, Interaction Confidence, Interaction Enjoyment and Interaction attentiveness. The last step was revealing correlation among factors constructing SCAS-R and IS.

In the first step, in regard to factors constructing sociocultural adaptation competence suggested by Wilson (2013) [12] through SCAS-R scale, each of the factors was analyzed for its correlation among the factors in the variable using Partial Least Square (PLS). The result of the statistical

computation is presented in Table 4.

TABLE 4. CORRELATION AMONG FACTORS CONSTRUCTING SCAS-R

		X1	X2	X3	X4	X5	Sociocultural Adaptation
X1 (Interpersonal Communication)	Pearson Correlation	1	,698**	,698**	,647**	,271	,870**
	Sig. (2-tailed)		,000	,000	,000	,099	,000
	N	38	38	38	38	38	38
X2 (Academic Performance)	Pearson Correlation	,698**	1	,624**	,505**	,147	,775**
	Sig. (2-tailed)	,000		,000	,001	,380	,000
	N	38	38	38	38	38	38
X3 (Personal Interest)	Pearson Correlation	,698**	,624**	1	,728**	,058	,821**
	Sig. (2-tailed)	,000	,000		,000	,730	,000
	N	38	38	38	38	38	38
X4 (Ecological Adaptation)	Pearson Correlation	,647**	,505**	,728**	1	,060	,771**
	Sig. (2-tailed)	,000	,001	,000		,720	,000
	N	38	38	38	38	38	38
X5 (Language Proficiency)	Pearson Correlation	,271	,147	,058	,060	1	,477**
	Sig. (2-tailed)	,099	,380	,730	,720		,002
	N	38	38	38	38	38	38
Sociocultural Adaptation	Pearson Correlation	,870**	,775**	,821**	,771**	,477**	1
	Sig. (2-tailed)	,000	,000	,000	,000	,002	
	N	38	38	38	38	38	38

**. Correlation is significant at the 0.01 level (2-tailed)

From table 4 it can be learnt that there is a significant relationship among the five factors constructing the SCAS-R with r value of 0.870 for Interpersonal, 0.775 for Academic Performance, 0.821 for Personal Interest & Community Involvement, 0.771 for Ecological Adaptation, and 0 .477 for Language Proficiency.

Using the same statistical computation, the second step was conducted to expose relationship among factors constructing IS scale which result is shown in Table 5.

TABLE 5. CORRELATION AMONG FACTORS CONSTRUCTING IS SCALE

		Y1	Y2	Y3	Y4	Y5	Intercultural Sensitivity
Y1 (Interaction Engagement)	Pearson Correlation	1	-,263	,416**	-,220	,560**	,305
	Sig. (2-tailed)		,110	,009	,184	,000	,062
	N	38	38	38	38	38	38
Y2 (Respect for Other Culture)	Pearson Correlation	-,263	1	,168	,740**	-,149	,670**
	Sig. (2-tailed)	,110		,312	,000	,373	,000
	N	38	38	38	38	38	38
Y3 (Interaction Confidence)	Pearson Correlation	,416**	,168	1	,391*	,284	,713**
	Sig. (2-tailed)	,009	,312		,015	,084	,000
	N	38	38	38	38	38	38
Y4 (Interaction Enjoyment)	Pearson Correlation	-,220	,740**	,391*	1	-,199	,781**
	Sig. (2-tailed)	,184	,000	,015		,232	,000
	N	38	38	38	38	38	38
Y5 (Interaction Attentiveness)	Pearson Correlation	,560**	-,149	,284	-,199	1	,332*
	Sig. (2-tailed)	,000	,373	,084	,232		,042
	N	38	38	38	38	38	38
Intercultural Sensitivity	Pearson Correlation	,305	,670**	,713**	,781**	,332*	1
	Sig. (2-tailed)	,062	,000	,000	,000	,042	
	N	38	38	38	38	38	38

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 5 identifies correlation among factors constructing Intercultural Sensitivity scale proposed by Chen & Starosta (2000) [16]. Though using the same statistical computation used to investigate the correlation among factors constructing SCAS-R proposed by Wilson (2013) [15], different result was found. It seems that only 3 out of the 5 factors constructing the Intercultural Sensitivity scale were highly correlated with significant relation. The three factors were Respect for Other Culture, Interaction Confidence, and Interaction Enjoyment. While, the two other factors showed distinct relationship. Interaction Attentiveess showed significance level of .042 with r value of 0.332. It means that though it has positive relationship ($r = 0.332$), the significance of the relationship is relatively low ($p=0.042 < 0.05$). Further, Interaction Engegement showed its

r value of 0.305 which is a positive correlation. However, it becomes meaningless as its significance value is 0.062 which is higher than 0.05. From this finding, it can be inferred that factors constructing IS scale need to be revisited.

While factors constructing IS scale are in need of re-evaluation in terms of their correlation among factors, further investigation is performed to expose the relationship among factors constructing both variables; sociocultural adaptation and intercultural sensitivity. Partial Least Square (PLS) regression was once again put into use which resulted on data presented in Table 6.

TABLE 6. CORRELATION AMONG FACTORS CONSTRUCTING SCAS-R AND IS SCALE

		X1	X2	X3	X4	X5	Y1	Y2	Y3	Y4	Y5
X1	Pearson Correlation	1	,698	,698	,647	,271	,337	,058	,313	,099	,057
	Sig. (2-tailed)		,000	,000	,000	,099	,039	,730	,055	,554	,733
	N	38	38	38	38	38	38	38	38	38	38
X2	Pearson Correlation	,698	1	,624	,505	,147	,326	,134	,204	,133	,220
	Sig. (2-tailed)	,000		,000	,001	,380	,046	,422	,219	,425	,185
	N	38	38	38	38	38	38	38	38	38	38
X3	Pearson Correlation	,698	,624	1	,728	,058	,441	,127	,274	,201	,029
	Sig. (2-tailed)	,000	,000		,000	,730	,006	,449	,096	,226	,865
	N	38	38	38	38	38	38	38	38	38	38
X4	Pearson Correlation	,647	,505	,728	1	,060	,264	,247	,338	,230	-,053
	Sig. (2-tailed)	,000	,001	,000		,720	,109	,134	,038	,164	,754
	N	38	38	38	38	38	38	38	38	38	38
X5	Pearson Correlation	,271	,147	,058	,060	1	,016	-,202	,044	-,109	,026
	Sig. (2-tailed)	,099	,380	,730	,720		,925	,225	,793	,514	,876
	N	38	38	38	38	38	38	38	38	38	38
Y1	Pearson Correlation	,337	,326	,441	,264	,016	1	-,263	,416	-,220	,560
	Sig. (2-tailed)	,039	,046	,006	,109	,925		,110	,009	,184	,000
	N	38	38	38	38	38	38	38	38	38	38
Y2	Pearson Correlation	,058	,134	,127	,247	-,202	-,263	1	,168	,740	-,149
	Sig. (2-tailed)	,730	,422	,449	,134	,225	,110		,312	,000	,373
	N	38	38	38	38	38	38	38	38	38	38
Y3	Pearson Correlation	,313	,204	,274	,338	,044	,416	,168	1	,391	,284
	Sig. (2-tailed)	,055	,219	,096	,038	,793	,009	,312		,015	,084
	N	38	38	38	38	38	38	38	38	38	38
Y4	Pearson Correlation	,099	,133	,201	,230	-,109	-,220	,740	,391	1	-,199
	Sig. (2-tailed)	,554	,425	,226	,164	,514	,184	,000	,015		,232
	N	38	38	38	38	38	38	38	38	38	38
Y5	Pearson Correlation	,057	,220	,029	-,053	,026	,560	-,149	,284	-,199	1
	Sig. (2-tailed)	,733	,185	,865	,754	,876	,000	,373	,084	,232	
	N	38	38	38	38	38	38	38	38	38	38

**. Correlation is significant at the 0.01 level (2-tailed).   *. Correlation is significant at the 0.05 level (2-tailed).

It can be learnt from Table 6 that from factors constructing both variables, Interaction Engagement of Intercultural Sensitivity positively correlates with three factors constructing SCAS-R namely Interpersonal Communication ($r = 0.337$), Academic Performance ($r = 0.326$), and Personal Interest ($r = 0.441$) with p value of 0.039, 0.046, and 0.006 respectively. Hovewer, it does not correlates with the two other factors of SCAS-R namely Ecological Adaptation and Language proficiency.

In addition, Interaction Confidence of Intercultural Sensitivity is positively correlates ($r = 0.338$) with Ecological Adaptation of SCAS-R with significance level of 0.038. Yet, it does not show any correlation with the other four variables constructing SCAS-R.
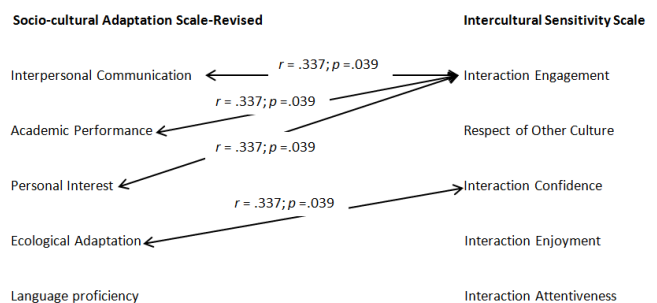

Fig 1. Correlation among factors constructing SCAS-R and IS scale

Figure 1 provide visual explanation of how five factors constructing SCAS-R and five factors constructing IS scale correlate among them. It can be seen that not all of them are

correlated. Only two (Interaction Engagement and Interaction Confidence) of factors constructing IS scale are correlated with four out of five factors constructing SCAS-R. Interaction Engagement is correlated with Interpersonal Communication, Academic Performance, and Personal interest while Interaction Confidence is correlated with Ecological Adaptation. Yet, Recpect of Other Culture, Interaction Enjoyment, and Interaction Attentiveness show no correlation with any of SCAS-R factors. An interesting finding is that Language Proficiency turned out to have no correlation with any of the factors constructing Intercultural Sensitivity.

IV. CONCLUSION

With an understanding that formed socio-cultural competence is a guarantor of effective cross-cultural communication, in-depth investigation towards many perimeter established to measure individual's socio-cultural competence and cross-culture communication is needed. Employing SCAS-R (Wilson, 2013) [12] and IS scale (Chen & Stratosa, 2000) [13] to measure 38 international students studying in Indonesia with its multicultural society, it is revealed that there is no significant correlation between both variable. Further investigation showed strong relationship among factors constructing SCAS-R. However, relationship among factors constructing IS scale showed 2 out of 5 factors do not have significant relationship. Thus, IS scale proposed by Chen & Stratosa (2000) indicating a need of revisiting. Moreover, relationship among factors constructing SCAS-R and IS scale acknowledged that only 3 out of 5 SCAS-R factors have strong relationship with merely interaction engagement of IS scale and that Ecological Adaptation of SCAS-R has significant relation with Interaction Confidence of IS scale. Therefore, more empirical evidence is needed to affirm the construct of aforementioned concept of relationship between socio-cultural competence and intercultural communication.

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