Predicting Intercultural Communication in Malaysian Public Universities from the Perspective of Anxiety/Uncertainty Management (AUM) Theory

Pragash Muthu Rajan¹, Sultana Alam, Khor Kheng Kia & Charles Ramendran SPR Subramaniam

Universiti Tunku Abdul Rahman, Malaysia

Abstract: The mission to promote national unity has become more strenuous with the decline of intercultural engagement among multicultural students in Malaysian public universities. Underpinned by Anxiety/Uncertainty Management (AUM) theory, this article examines barriers to intercultural communication by integrating ethnocentrism as an additional barrier. Based on a quantitative approach, 449 valid responses were collected from undergraduates from five public universities in Malaysia. Partial-least-squares software (SmartPLS3) was used to test the proposed relationships. The findings reveal that anxiety, uncertainty, and ethnocentrism have a significant negative relationship with intercultural communication.

<u>Keywords</u>: Anxiety/Uncertainty Management (AUM) theory, ethnocentrism, intercultural communication, undergraduates.

1. Introduction

Malaysia is one of the most multicultural countries in Southeast Asia (Azlan, Kee & Abdullah 2018) with three major ethnic groups: Malay, Chinese and Indian (Chang & Kho 2017). Since its independence in 1957, Malaysia has always been struggling to introduce concepts able to promote "unity in diversity" to form a national identity (Yusof & Esmaeil 2017). Although education policies are expected to play the key role in fostering national integration, existing studies indicate that intercultural communication in higher education institutions is still limited and not up to satisfactory level (Tamam 2013; Tamam *et al.* 2013) To worsen the situation, most university students prefer socializing with their friends and peers from the same ethnic group (Hashmi *et al.* 2017). Instead of being an avenue for uniting students, Malaysian public universities are in danger of being breeding grounds for intolerance, ethnocentrism, and segregated communities (Mustapha *et al.* 2009).

There is considerable evidence that intercultural communication often creates chaos among higher-learning-institution students coming from diverse cultural backgrounds (Holmes 2005). Uncertainty is considered to be the primary factor that affects intercultural communication (Novinger 2001). Neuliep (2015) explains that communication with someone from a different cultural background can be frightening and can be worsened by uncertainty. A concept that is strongly associated with uncertainty is anxiety. Interaction with people from a different culture often leads to anxiety, which sometimes causes individuals to avoid initiating interaction (Logan, Steel & Hunt 2015).

Underlying the present research is Bill Gudykunst's (1995) Anxiety/Uncertainty Management (AUM) theory. AUM theory identifies uncertainty and anxiety towards other cultures as playing a major role in intercultural communication. According to Gudykunst, to communicate effectively, people from different cultural backgrounds try to lessen anxiety and, at the same time, improve certainty about themselves and the other person.

¹ Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman (Kampar Campus), Jalan Universiti, Bandar Barat, Kampar 31900. Perak, Malaysia. Email: pragashm@utar.edu.my.

Several studies have tested AUM theory with respondents from various countries. Recent studies have revealed that, besides anxiety and uncertainty, another factor is strongly a barrier to intercultural communication: ethnocentrism (Logan, Steel & Hunt 2016, 2017; Neuliep 2012). Ethnocentrism has been tested separately and found to jeopardize intercultural communication among university students (Hosseini Fatemi, Khajavy & Choi, 2016). These studies reveal that a high level of ethnocentrism increases the level of anxiety; to avoid such anxiety, individuals with a high level of ethnocentrism might choose to avoid such interaction completely. Ethnocentrism and anxiety have been found to be obstacles toward reducing uncertainty in intercultural communication. The close link between these three factors has drawn the interest of researchers wanting to validate AUM theory by integrating ethnocentrism into the theory.

Although studies in Western countries have declared these three factors as barriers to intercultural communication (Logan, Steel & Hunt 2016, 2017; Neuliep 2012, 2015), it is crucial to investigate the impact of these barriers in the Malaysian context. In Western studies, these barriers were studied in terms of intercultural communication between local and international students. In the Malaysian context, multicultural students have been raised and are living in the same society and country.

Despite the importance of the ability to manage barriers to communicate effectively and produce a positive outcome for intercultural communication, the lack of studies on barriers to intercultural communication, particularly among Malaysian undergraduates, is extremely evident (Tamam & Hashmi 2015, Tamam & Waheed 2017). It is essential to investigate the factors that hinder intercultural communication among multicultural university students. However, Malaysian researchers seem more interested in studying the impact of ethnocentrism alone on students' intercultural communication (Ridzuan, Bolong & Said 2017; Ketab, Tamam & Bolong 2015). Researchers tend to focus on barriers to intercultural communication between local Malaysian and international students (Khojastehrad & Sattarova 2015, Moulita 2015), barriers to general communication (Al-Naggar, Bobryshev & Alabsi 2013; Azrizal 2014; Tom *et al.* 2013), and barriers to second-language acquisition (Manan & Shamsudin 2017, Miskam & Saidalavi 2019). As a result, little is known about the relationship between the three barriers and intercultural communication among multicultural students in Malaysian public universities.

The present study is conducted to better understand the effects of uncertainty, anxiety, and ethnocentrism on intercultural communication among Malaysian undergraduates. Past studies have tested AUM theory with respondents from different cultures in different countries. Only a few have applied AUM theory to investigate intercultural communication among people from different cultures within the same country.

2. Literature review

2.1 Intercultural communication

Over the years, intercultural communication has gained noticeable attention within the communication field. It has evolved as a hypernym for all aspects of communication that involve cultural differences. Jackson (2017) defines intercultural communication as interpersonal communication between individuals or groups who are associated with different cultural groups or have been socialized in different cultural ways by age, class, gender, ethnicity, language, race, nationality or physical or mental ability. In Malaysia, although Malay, Chinese, and Indian people are addressed as ethnic, the interactions between them have generally been referred to as intercultural communication (Tamam & Waheed, 2017; Ismail, 2015).

The relevance of intercultural communication to intercultural relations is well supported in the literature. According to Agil (2017), intercultural communication is important in

establishing integration in a nation whereby local and neighbourhood settings are the starting point for integration processes. Intercultural communication is essential in strengthening the bonding among people from different cultural backgrounds and helping them to take part in the global community.

Life, culture, communication and national integration are ongoing, evolving processes without precise beginnings or endings (Dada & Babatunde 2015). A country relies heavily on intercultural communication for its development given the consequent ability to share ideas internationally and also between people of varied cultural backgrounds within the same country. For Singh (2016), intercultural communication is an important component establishing social harmony; it plays a significant role establishing the link between two or more persons or ethnicities of one culture and another, or of one society and a nation. Singh writes that, by promoting intercultural relationships through intercultural communication, world views of diverse cultural communities are enhanced.

As a leading institution for socialization, higher educational shapes each new generation's world perspectives through its role as a platform for establishing new contacts and networks among the students (Ananina & Danilov 2015). Yusupova, Podgorecki & Markova (2015) believe that such an environment provides students the foundation for flexible adaptation, intercultural tolerance, substantial personality development, and both willingness and ability to live in a multicultural society. Goria, Speicher and Stollhans (2016) consider it important to provide adequate intercultural awareness and time for multicultural students to acquire the skills to work as a team instead of pushing them to master intercultural communication within a short time frame. A lack of cross-cultural awareness or sensitivity can be a severe hindrance to participation in intercultural communication (Mahmud & Wong 2016). Shwed, Kalish, and Shavit (2018) write that, regardless of the form of interaction among multicultural students, such interaction reduces prejudice and establishes more favorable intercultural attitudes in the long run.

2.2 Barriers to intercultural communication

Acioly-Regnier, Koroleva, and Mikhaleva (2014) claim that conflicts and misunderstandings in intercultural communication are not caused by inadequate knowledge in language, but rather insufficient cultural knowledge. Lack of awareness and insufficient cultural knowledge create a tendency to intercultural miscommunication, anxiety, and uncertainty due to the differing cultural frames of reference (Awang-Rozaimie, Sahari & Ali 2017). Hartwig (2016) states that contact with new cultures is often accompanied by misunderstanding, uncertainty, and anxiety. Anxiety and uncertainty have been particularly labelled as obstacles to intercultural communication that eventually cause avoidance of such communication (Jackson 2017, Kim 2017, Neuliep 2017). Neuliep (2019) sees the effects of uncertainty and anxiety as closely linked to intercultural communication along with the initiation and development of intercultural relationships.

Although anxiety and uncertainty are predominantly considered to affect intercultural communication, scholars suspect that ethnocentrism is another factor closely linked with anxiety and uncertainty that likewise influences intercultural communications. Several studies have incorporated ethnocentrism into AUM theory to examine intercultural communication. Logan and colleagues (2015, 2016, 2017) reveal that anxiety, uncertainty, and ethnocentrism are major influences on and negatively associated with intercultural communication. Neuliep (2012, 2015) confirms that these three factors play a significant role in intercultural communication in university settings. Ethnocentric students approach others less often, thereby reducing uncertainty and anxiety (Neuliep 2017). The paper takes this into consideration to explore the impact of uncertainty, anxiety, and ethnocentrism on intercultural communication among multicultural undergraduates in Malaysian public universities.

3. Hypothesis development

3.1 Relationship of uncertainty to intercultural communication

Uncertainty refers to a lack of information as to how one should act to expect certain outcomes (Aspers 2018). Communication with someone from an unknown culture can be terrifying and worsened by uncertainty (Neuliep 2015), causing inability to predict or explain the events that transpire in and around social communication (Whitt 2015). Neuliep (2015) states that, due to the difficulty predicting a stranger's responses, it is common to experience a higher degree of uncertainty while communicating with an individual from a different culture. Intercultural encounters seek to lower the degree of uncertainty to improve the ability to predict and understand a stranger from a different culture (Redmond 2015) by gaining more information about the person (Ihtiyar 2018). When people fail to gather more information, it becomes more difficult for them to predict or explain the other's behavior. This leads to uneasy feelings, and intercultural communication becomes ineffective or avoided (Presbiteroa & Attar 2018). A limited number of studies have been conducted in Malaysia regarding uncertainty. Ismail's (2015) study on intercultural communication among multicultural university staff reveals that 92% of the respondents felt uncertain during interactions with colleagues from differing cultural backgrounds. Tamam and colleagues (2013) state that doubts among students over whether or not another cultural group is interested in intercultural engagement is taken as uncertainty. They reason that there is need to investigate the influence of uncertainty in intercultural communication among Malaysian undergraduates. We suggested that:

H1: There is a relationship between uncertainty and intercultural communication among Malaysian undergraduates.

3.2 Relationship of anxiety to intercultural communication

A high degree of uncertainty triggers high anxiety among communicators (Neuliep 2015). Anxiety often presents with complex behaviors that impede effective communication (Ilie 2019). In an unfamiliar situation, people feel anxious because of not knowing what they should say or do. Especially when people are in a new environment, language barriers and insufficient knowledge about the new culture cause difficulty adapting (Khatimah 2019), which make people feel that they are losing all their familiar signs and symbols of social intercourse (Wu, Garza & Guzman 2015). When people have more in common with others, they are more comfortable getting along (Ilie 2019). Bucker and colleagues (2014) observe that intercultural interactions can threaten people as they realize that assumptions they had during interactions with those from their own culture are not applicable when communicating with those from a different culture. A feeling of losing ground often leads to anxiety.

Studies in Malaysia have focused on anxiety in intercultural communication between local and international university students (Ahmad *et al.* 2017, Khojastehrad & Sattarova, 2015), second-language anxiety (Manan & Shamsudin 2017, Miskam & Saidalavi 2019), and anxiety in intercultural communication between university staff and international students (Mandayar 2011, Misni 2014). There is only one study, conducted by Jaganathan and Kaur (2003), which investigates the impact of anxiety on intercultural communication among multiracial high-school students aged 19-20 years. To the best of our knowledge, there is no empirical study investigating anxiety among multiracial undergraduates in intercultural communication settings. The current study is intended to bridge the gap. We suggest that:

H2: There is a relationship between anxiety and intercultural communication among Malaysian undergraduates.

3.3 Relationship of ethnocentrism to intercultural communication

High levels of anxiety and uncertainty lead to an ethnocentric attitude (Liu, Volcic & Gallois 2014). Sumner (1906: 13) coined the term "ethnocentrism" defined as "the technical name for this view of things in which one's own group is the centre of everything, and all others are scaled and rated with reference to it". Although a certain level of ethnocentrism is necessary to establish solidarity within a group, an excessive level leads to prejudice and discrimination (Neuliep 2012).

Neuliep (2012) examined the relationship between anxiety, uncertainty, and communication satisfaction during initial intercultural interaction. The results demonstrate that uncertainty reduction becomes difficult due to ethnocentrism and anxiety. Tegelaar (2012) investigated the relationship of anxiety and ethnocentrism to willingness to communicate with homeless people. Their findings show the European respondents to be more ethnocentric than the American or Mexican participants. The negative relationship between ethnocentrism and intercultural communication is supported in further studies (e.g., Arasaratnam & Banerjee 2011, Robinson 2017).

Although many studies related to ethnocentrism are available in Western countries, only very limited studies are available in Malaysia. This study aims to examine the relationship of ethnocentrism to intercultural communication. We theorize that:

H3: There is a relationship between ethnocentrism and intercultural communication among Malaysian undergraduates.

The framework for this study is based on Gudykunst's (1995) Anxiety/Uncertainty Management theory with its two barriers on intercultural communication: anxiety and uncertainty. Ethnocentrism, a concept introduced by Sumner (1906), is incorporated as another determinant, for a total of three independent variables. See Figure 1.

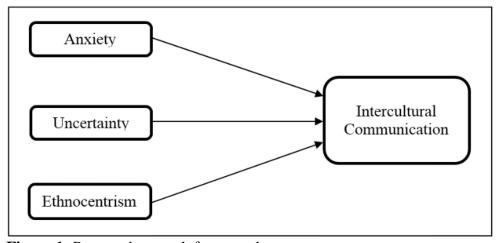


Figure 1: Proposed research framework.

4. Methods

4.1 Participants and sampling

For this study, respondents comprise Malay, Chinese, and Indian undergraduates studying at one of five research universities in Malaysia: Universiti Malaya (UM), Universiti Sains Malaysia (USM), Universiti Putra Malaya (UPM), Universiti Kebangsaan Malaysia (UKM), and Universiti Teknologi Malaysia (UTM). The main reason for selecting public universities rather than private is the access to a high number of multicultural students.

4.2 Survey procedure

Respondents were selected by proportionate stratified sampling. The number of questionnaires distributed to each university was proportionate to each university's undergraduate population. Sampling was determined based on the sample-size table from Krejcie and Morgan (1970: 608). Sekaran and Bougie (2016) cite that table as a guideline to deciding sample size. Since the total undergraduate population in the five universities was 89,310 at the time of data collection, the minimum sample size for the present study was determined to be 382.

This paper intended to achieve a minimum response rate of 80% based on response rates obtained in past studies (Awang-Rozaimie *et al.* 2017, Yunus *et al.* 2017). Therefore, to obtain 382 responses, 477 questionnaires were distributed. Due to privacy laws and regulations as well as the universities' own policies, the universities refused to disclose information related to ethnicity, gender or age. That made it impractical if not impossible to recruit respondents according to ethnic proportion of the university population. Therefore, this study used the overall ethnic breakdown of the Malaysian population, which is approximately 6:3:1 (Malay, Chinese, Indian). This meant that 286 questionnaires were distributed to Malay respondents (60%), 143 to Chinese respondents (30%), and 48 to Indian respondents (10%). Respondents were selected using probabilistic systematic sampling: every third student who entered each university's main library was approached and asked to answer the questionnaire. Questionnaires were collected immediately once completed. We received 449 usable questionnaires, yielding a success rate of 94.1%.

4.3 Measures

Intercultural communication was measured with a seven-item scale proposed by Ketab and colleagues (2015) extracted from the Your First College Year YFCY survey.

Uncertainty was measured with Clatterbuck's (1979) Attributional Confidence Scale, which consists of seven items. The original scale required respondents to indicate their certainty level in percentage for each item, ranging from 0 (not confident at all) to 100% (fully confident). Following a suggestion from Baruh and Cemalcilar (2018), to maintain uniformity throughout the questionnaire, the present study changed the items from questions to statements and used a five-point Likert scale instead.

For the purpose of measuring anxiety level among respondents, the Personal Report of Intercultural Communication Apprehension (PRICA) Scale developed by Neuliep and McCroskey (1997b) was adopted and modified. The original scale consists of 14 items measuring anxiety towards strangers, seven measuring relaxed feelings, and seven measuring anxiety. For the present study, only those seven measurement items related to anxiety were used.

Ethnocentrism was assessed with five items from Neuliep and McCroskey's (1997a) Generalized Ethnocentrism (GENE) Scale. The original scale consists of 22 items. For the present study, only five items were used, based on suggestions from a previous study conducted in Malaysia (Ketab *et al.* 2015).

All 26 items were measured on a five-point Likert scale from 1 ("strongly disagree") to 5 ("strongly agree"); see the appendix for the full list of questions. SmartPLS² v.3.2.8 was used to evaluate the results.

² https://www.smartpls.com/

5. Findings

5.1 Descriptive analysis

The respondents comprised 271 (60.4%) Malay, 134 (29.8%) Chinese, and 44 (9.8%) Indian undergraduate students, of whom 76.6% were female and 23.4% male. They represented all years of study: 186 (41.4%) first-year students, 105 (23.4%) second-year, 149 (33.2%) third-year, and nine (2%) fourth-year.

Frequency analysis revealed that the majority of respondents (62.4%) reported having intercultural communication on a daily basis. Of the remaining, 21.6% indicated a frequency of three to five days per week, 8.7% one to two days, and 7.3% "rarely". No one reported "never". This implies that students in the university setting are unable to escape from participating in intercultural communication.

Khumsikiew, Donsamak, and Saeteaw (2015) write that, for a five-point Likert scale, mean scores can be interpreted as very low, low, moderate, high, and very high for scores ranging 1.00 to 1.80, 1.81 to 2.60, 2.61 to 3.40, 3.41 to 4.20, and 4.21 to 5.00, respectively. Table 1 summarizes how respondents showed low anxiety (mean = 2.40, SD = .78), moderate uncertainty (mean = 2.73, SD = .52), low ethnocentrism (mean = 1.87, SD = .79), and high intercultural communication (mean = 3.54, SD = .65). Table 2 shows mean values based on ethnicity.

Table 1: Means and standard deviations (n = 449).

Variable	Mean	Interpretation	SD			
anxiety	2.40	low	.78			
uncertainty	2.73	moderate	.52			
ethnocentrism	1.87	low	.79			
intercultural communication	3.54	high	.65			

Table 2: Means and standard deviations by ethnicity.

Ethnicity		Intercultural communication	Anxiety	Uncertainty	Ethnocentrism
Malay	mean	3.55	2.41	2.73	1.76
	SD	0.67	0.79	0.52	0.74
Chinese	mean	3.50	2.45	2.72	2.15
	SD	0.61	0.72	0.52	0.83
Indian	mean	3.62	2.15	2.76	1.72
	SD	0.63	0.83	0.56	0.71

The Indian sample had the highest mean value for intercultural communication (3.62, SD = 0.63), followed by the Malay sample (3.55, SD = 0.67), and the Chinese sample (3.50, SD = 0.61). These means tracked the mean values for each barrier. The Malay respondents had medium mean values for all three barriers (and consequently for intercultural communication overall); the Chinese respondents had the highest mean value for anxiety and ethnocentrism but the lowest mean value for uncertainty; while the Indian respondents had the highest mean value for uncertainty but the lowest mean values for anxiety and ethnocentrism. As the Indian respondents were mainly affected by one barrier (uncertainty), they had the highest mean value for intercultural communication, while the Chinese had the lowest (3.50, SD = 0.61), being significantly affected by two barriers: anxiety and ethnocentrism.

Female students constituted the highest number of respondents. This reflects the true composition of students in the chosen public universities. As Tienxhi (2017) notes, most public universities in Malaysia fall within the extreme-disparity classification with a Gender Parity Index (GPI) above 1.5, which means that females outnumber males by a ratio of more

than 1.5. Given the gender disparity, a T-test was used to find out if there was any significant difference in the mean values scored by male and female respondents. No such difference was found, either for intercultural communication overall or for any of the three barriers.

5.2 Assessment of the measurement model

Confirmatory factor analysis (CFA) was performed to examine discriminant validity, convergent validity and reliability to assess the measurement model. Based on the rule of thumb from Hair and colleagues (2017), three items were omitted from the measurement model due to low factor loading less than 0.5 (UNCT1, UNCT2, and IC1). Table 3 shows the remainder of the item loadings. All the composite reliability (CR) values exceed 0.7, indicating adequate acceptable reliability per Hair and colleagues. For average variance extracted (AVE), Hair and colleagues suggest that values must be 0.50 or higher, to show that the variable explains more than half the variance of its indicators. All our AVE values are above 0.5.

Table 3: Results of assessment model.

Construct	Measurement	Loading	AVE^a	CR ^b	CAc
	item				
anxiety	ANX1	0.741	0.630	0.922	0.901
	ANX2	0.802			
	ANX3	0.876			
	ANX4	0.888			
	ANX5	0.826			
	ANX6	0.743			
	ANX7	0.655			
uncertainty	UNCT2	0.705	0.503	0.834	0.726
	UNCT3	0.755			
	UNCT4	0.705			
	UNCT5	0.650			
ethnocentrism	ETHN1	0.725	0.574	0.871	0.816
	ETHN2	0.779			
	ETHN3	0.804			
	ETHN4	0.742			
	ETHN5	0.735			
intercultural	IC2	0.684	0.514	0.863	0.809
communication	IC3	0.790			
	IC4	0.775			
	IC5	0.771			
	IC6	0.618			
	IC7	0.644			

Table 4: Discriminant validity of concepts.

Construct	ANXa	$ETHN^b$	IC ^c	UNCT ^d
ANX	0.794			
ETHN	0.348	0.758		
IC	-0.312	-0.235	0.715	
UNCT	0.113	-0.098	-0.355	0.709

 $\overline{ANX^a}$ = anxiety, $\overline{ETHN^b}$ = ethnocentrism, $\overline{IC^c}$ = intercultural communication, $\overline{UNCT^d}$ = uncertainty, p < 0.05.

ANX1 ANX2 0.741 0.802 ΔNX3 0.876 ANX4 -0.888 0.826 0.743 Anxiety 0.655 ANX6 -0.202 UNCT2 IC2 ANX7 UNCT3 0.705 IC3 0.790 0.755 0.235 ~0.775 IC4 UNCT4 -0.705 0.650 0.771 IC5 UNCTS 0.726 0.618 Uncertainty Intercultural 0.644 UNCT7 IC6 -0.199 ETHN1 IC7 0.725 ETHN2 0.779 ETHN3 -0.804 0.742

5.3 Assessment of the structural model

Figure 2: The structural model.

Ethnocentrism

To use SmartPLS3 in hypothesis testing, two compulsory analyses should be carried out: the coefficient of determination (R2) to quantify the endogenous constructs and the path coefficients (Hair *et al.*, 2017). It is important for the path coefficients to be significant, whereas R2 can vary depending on the research area. Chin (1998) describes the R2 values of 0.19, 0.33 and 0.67 in the path model as weak, moderate and substantial, respectively. As shown in Figure 2, we found an R2 for intercultural communication of 0.235, which is moderate. This means that the influence of uncertainty, anxiety, and ethnocentrism towards intercultural communication is 23.5% only, with the remaining 76.5% determined by other variables.

5.4 Hypothesis testing

ETHN4

As shown in Table 5, all independent variables -- uncertainty, anxiety, and ethnocentrism -- were found to have a significant influence on and negative relationship with intercultural communication.

Uncertainty has a significant negative effect on intercultural communication (β = -0.352, t = 8.744, p = 0.000), supporting **H1**: uncertainty is negatively associated with intercultural communication among undergraduates in Malaysian public universities. It impedes interaction with peers from different cultures.

Similar to uncertainty, anxiety has a significant negative effect on intercultural communication (β = -0.202, t = 3.071, p = 0.002), supporting **H2**: anxiety is negatively correlated with intercultural communication among undergraduates in Malaysian public universities. When students face higher anxiety, it results in low intercultural communication among peers from different cultures.

Ethnocentrism has a significant negative effect on intercultural communication (β = -0.199, t = 4.233, p = 0.000), supporting **H3**: ethnocentrism hinders intercultural communication among Malaysian undergraduates.

Table 5: Results of hypothesis testing.

	Hypothesis path	Path coefficient	Standard error	T value	p value	Decision
H1	uncertainty → IC	-0.352	0.051	8.744	0.000	supported
H2	anxiety → IC	-0.202	0.061	3.071	0.002	supported
Н3	ethnocentrism → IC	-0.199	0.060	4.233	0.000	supported

6. Discussion

This study was carried out to determine the nature of relationships between anxiety, uncertainty, and ethnocentrism and their effect on intercultural communication among Malay, Chinese, and Indian undergraduate students at five Malaysian universities. This study is the first of its kind to do so.

The results for the first hypothesis show a significant negative relationship between uncertainty and intercultural communication among Malaysian undergraduates. This finding supports previous studies that revealed uncertainty as a barrier to intercultural communication (Gudykunst 1995; Logan *et al.* 2015, 2016, 2017; Neuliep 2012; Whitt 2015). Presbiteroa and Attar (2018) explain that, when people fail to gather more information about an individual who comes from a different cultural background, it becomes more difficult for them to predict and explain the individual's behavior. This leads to uneasy feelings, and intercultural communication becomes ineffective.

The results for the second hypothesis show a significant negative relationship between anxiety and intercultural communication among Malaysian undergraduates. This finding supports previous studies that revealed anxiety as a barrier to intercultural communication (Gudykunst 1995, Ilie 2019). Individuals experience anxiety due to insufficient knowledge about an environment and its culture, making them feel like they are losing all their familiar ground (Khatimah 2019; Wu, Garza & Guzman 2015). This feeling can be controlled if sufficient information related to the intercultural setting is available (Chen & Yang 2015).

Finally, the results for the third hypothesis show a significant negative association between ethnocentrism and intercultural communication. Again, past studies have reported similar results, agreeing that ethnocentrism impedes intercultural engagement (Cargile & Bolkan 2013, Hooghe & Quintelier 2013, Jandt 2013, Ketab *et al.* 2015). Due to uncertainty and anxiety, students may choose not to interact at all, which may eventually make them ethnocentric (Campbell 2016).

7. Conclusion

The findings of this study directly support the AUM theory, which claims that both anxiety and uncertainty are barriers to intercultural communication (Gudykunst 1998, Gudykunst & Nishida 2001), while indicating the relevance of AUM theory in the Malaysian context. Ethnocentrism was found to be another factor influencing intercultural communication. Although all the independent variables were found to have a significant negative relationship with intercultural communication, uncertainty has a stronger influence compared to anxiety and ethnocentrism. As indicated by Neuliep (2015), a higher degree of unfamiliarity and uncertainty triggers high levels of anxiety among communicators. To avoid that anxiety, individuals may choose not to interact with people from differing cultural backgrounds. Our findings show that uncertainty is the root cause of unsatisfactory intercultural engagement among Malaysian undergraduates. This aligns with Neuliep (2015), who views uncertainty as the primary factor affecting intercultural communication. By lowering uncertainty, anxiety and ethnocentrism should also be lowered and intercultural communication fostered. This

study delivers clear insight for the management of Malaysian universities to enhance intercultural communication among undergraduates, leading to a better and more harmonious living environment for all.

The findings suggest several practical implications for educators and university management. Institutions of higher education should provide more opportunities for multicultural students to get involved in intercultural activities. The Ministry of Higher Education should consider introducing more Malaysian culture-related courses for undergraduates on top of the existing ethnic-relations course. This will equip students with more knowledge about and better understanding of the other cultures and peoples of Malaysia. Students will be aided in experiencing positive intercultural communication, which should eventually help them to manage their anxiety, uncertainty, and ethnocentrism at an appropriate level. When students encounter different ideas, views and cultures, they can get a better exposure to the other culture(s), which should assist them in establishing more effective intercultural relations later on.

About the authors



Pragash Muthu Rajan is a PhD candidate in the Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman.

Sultana Alam is assistant professor in the Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman.

Khor Kheng Kia is assistant professor and deputy dean for academic development and undergraduate program in the Faculty of Arts and Social Science, Universiti Tunku Abdul Rahman (UTAR).

Charles Ramendran SPR Subramaniam is assistant professor in the Faculty of Business and Finance, Universiti Tunku Abdul Rahman.

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Appendix: Survey questions

Intercultural communication

- 1. I dined with peers and friends of different ethnics in this campus in a semester.
- 2. I had meaningful and honest discussions about ethnic relations with peers and friends of different ethnics.
- 3. I had satisfied communication with peers and friends of different ethnics in this campus.
- 4. I had friendly communication with peers and friends of different ethnics in this campus.
- 5. I had intellectual discussions with peers and friends of different ethnics outside the class.
- 6. I felt secure during communication with peers and friends of different ethnics in this campus.
- 7. I studied or prepared for class with peers and friends of different ethnics in this campus.

Anxiety

- 1. I'm tense and nervous while interacting with peers and friends of different ethnics in this campus.
- 2. Engaging in a group discussion with peers and friends of different ethnics in this campus makes me nervous.
- 3. While participating in a conversation with peers and friends of different ethnics in this campus, I get nervous.
- 4. Generally, I'm very tense and nervous in a conversation with a peer or friend of different ethnic in this campus.
- 5. I'm afraid to speak up in conversations with peers and friends of different ethnics in this campus.
- 6. My thoughts become confused and jumbled when interacting with peers and friends of different ethnics in this campus.
- 7. Communicating with peers and friends of different ethnics in this campus makes me feel uncomfortable.

Uncertainty

- 1. I'm confident in my ability to predict the behavior of my peers and friends of different ethnics in this campus.
- 2. I'm confident that my peers and friends of different ethnics in this campus like me.
- 3. I can predict accurately the values hold by my peers and friends of different ethnics in this campus.
- 4. I can predict accurately the attitude of my peers and friends of different ethnics in this campus.

- 5. I can predict accurately the feelings and emotions of my peers and friends of different ethnics in this campus.
- 6. I can empathize very well the way my peers and friends of different ethnics in this campus feel about themselves.
- 7. I know very well about my peers and friends of different ethnics in this campus.

Ethnocentrism

- 1. I do not cooperate with people who are from different ethnics.
- 2. I do not trust people who are from different ethnics.
- 3. I dislike interacting with people from different ethnics.
- 4. I have little respect for the values of other ethnics.
- 5. I have little respect for the customs of other ethnics.