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Superficial Causes of AUM Theory Affect Uncertainty and Anxiety among Students in a High-Context Culture

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Abstract: International students in Malaysian universities face uncertainty and anxiety toward a multi-new culture, a must-encountered cultural shock. This study investigated the relationship between superficial causes of AUM theory and uncertainty and anxiety in a high-context culture. In this study, 388 international students from different faculties were chosen through a method called stratified random sampling, which sampled two public universities with the largest number and richest nationalities of international students. The researchers used a self-administered questionnaire to gather information from the participants, which was analyzed by AMOS and applied to the validation of theoretical construct through Structural Equation Modelling (SEM), and other statistical methods were employed to analyze the data and test seven hypotheses. The findings of the study showed that five superficial causes affect the management of uncertainty and anxiety in AUM theory. The results of this study have important implications for Malaysian public universities in terms of understanding the factors that influence uncertainty and anxiety management among students.

Keywords: AUM Theory, Uncertainty Management, Intercultural Communication, Anxiety Management, International Students, Universities

1. Introduction

As we step into the 21st century, it's imperative to have multiple communication theories that represent diverse human experiences instead of being dominated by one nation's ideology (Huiwen et al., 2022). This new era is marked by multiculturalism and multilingualism, making it more crucial for communication researchers to create theoretical paradigms that can resonate with this diversity. Malaysia is also known for its unique style in Southeast Asia as a multicultural and multilingual society (Kong & Chen, 2022). This diversity has been reflected in the higher education sector. Since 1996, the number of foreign students attending Malaysia's universities has steadily increased (Gunaseelan et al., 2022). Not only does cross-border tertiary education impact the local students who studied abroad in the early 1950s, but this number is projected to reach more than seven million by 2020 (Lund, 2020).

In past research conducted in Malaysian public universities, some explored international students' intercultural communication based on the U-curve model of intercultural adjustment (Nadeem et al. 2021). Other researchers utilize the Contact Theory of Allport (1954) to explain international students' language, intercultural communication, and intercultural sensitivity (Curtis & Reid, 2019). However, Uncertainty Reduction Theory focuses primarily on reducing uncertainty during initial interactions between strangers (Gudykunst, 2005), while AUM explores a broader range of communication contexts and emphasizes the management of uncertainty and anxiety using various coping strategies levels (Huiwen et al., 2022). Besides, the Contact Theory of Allport addresses reducing prejudice and improving intergroup relations through direct contact, emphasizing changing attitudes and behaviors through positive interactions (Allport, 1954). Besides, the Contact Theory of Allport addresses reducing prejudice and improving intergroup relations through direct contact, emphasizing changing attitudes and behaviors through positive interactions (Allport, 1954).

Since cultural adaptation is a complex and multifaceted process that warrants attention from multiple stakeholders (Ramaiya et al. 2017), international students need to interact with students from counties with different cultures and backgrounds to develop cross-cultural communication (Wang & Gao, 2022), as well as work with

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their peers and mentors to resolve cross-cultural conflicts (Neuliep, 2017). Examples of antecedents in AUM theory include cultural background, communication skills, host contact, and situational factors. While these factors are important for successful intercultural communication, they are not the only factors involved and should not be viewed as the only explanations for intercultural communication and adaptation (Croucher & Rahmani, 2015b). Thus, the Anxiety/Uncertainty Management (AUM) Theory can forecast intercultural communication patterns within Malaysian universities (Rajan et al., 2021).

While various additional aspects impede the management of uncertainty and anxiety, eventually resulting in ineffective communication, which refers to these factors as superficial causes in theory (Gudykunst, 2005). The empirical support fails to test these superficial causes of AUM, specifically in the context of intercultural adjustment, because the axiom of AUM states them without requiring proof, and the axiom is used in mathematics and logic to deduce consequences (Neuliep, 2017).

2. Literature Review

2.1 AUM Theory

The Anxiety/Uncertainty Management Theory, applied in the domain of intergroup and interpersonal communication, underscores the critical role of managing anxiety and uncertainty as primary processes that shape our exchanges with unfamiliar individuals. Moreover, it highlights that a person's anxiety and uncertainty levels are interconnected when communicating with others (Duronto et al., 2005). Gudykunst (2005) introduced 47 axioms that pertain to superficial causes. These axioms are theoretical declarations or propositions that are widely recognized, accepted, or perceived to be obvious (Neuliep, 2017).

In previous research, strangers or precisely as sojourners (Maghfirah, 2018), International students, travelers, and immigrants are the ones who belong to "strangers". The cause of anxiety and uncertainty in intercultural encounters refers to the surface factors that result in the anxiety and uncertainty in intergroup encounters. Several surface-level factors contribute to our behavior towards hosts, such as our sense of self and identity, our desire to interact with hosts, our reactions to them, the way we categorize them socially, situational factors, and our connections with them (Gudykunst, 2005).

When strangers think about themselves, they often think about the groups they belong to, which is known as their social identity. Social identification occurs when individuals adopt the identity of the group, they have categorized themselves as being a part of; the desire of strangers to engage with hosts denotes their inclination towards seeking inclusion within a group. As defined by the World Bank, social inclusion refers to improving the opportunities for individuals and groups to actively engage in society by improving their skills, access to resources, and respect, particularly for those who face challenges due to their identity or background. How hosts are perceived by strangers can be influenced by inflexible attitudes like ethnocentrism. Ethnocentrism is a cognitive orientation about out-groups. People with high levels of ethnocentrism perceive their in-group as superior to other different groups (Neuliep & McCroskey, 1997a); strangers' social categorizations of hosts refer to positive expectations. Because we tend to categorize people into groups that seem logical to us as a means of structuring our social environment; situational processes pertain to the collective framework of duties carried out by unfamiliar individuals and hosts in collaboration. These procedures can impact our conduct by evoking the scripts we employ in response to varying circumstances; the level of intimacy in the bond between strangers and hosts can affect the level of uncertainty and anxiety experienced by the former in the host culture (Gudykunst, 2005).

2.2 Culture and Communication

When individuals engage in cross-cultural exchanges, they may feel uneasy upon realizing that their assumptions about interpersonal communication, which are valid within their own culture, may not be applicable when interacting with individuals from a different culture. This emphasizes the importance of comprehending cultural differences and acknowledging the influence of culture on communication (Baires et al., 2021)." To minimize the likelihood of misunderstandings when communicating with people from diverse cultural backgrounds, it is necessary to take certain measures, it is important to have a solid grasp of the principles of intercultural communication" (Croucher & Rahmani, 2015b).

According to Nadeem and Koschmann's (2021) theoretical assessment, the AUM theory has predominantly been evaluated in Western cultural settings, which has resulted in a void in the literature. The continuum of context orientation shows that the United States has a lower context orientation, whereas most Asian cultures are situated toward the high-context end of the spectrum. This implies that in low-context cultures, verbal aptitude is more crucial and valued as compared to high-context cultures (Hofstede, 1983), and information communicated orally or in writing necessitates lesser contextual knowledge to be interpreted accurately (Gudykunst & Nishida, 1986). While in high-context culture demands a communicator with a higher understanding of others' non-verbal communication when other people cannot express their ideas and feelings. Additionally, Western cultures tend to use high-arousal emotions to influence others, while Eastern cultures tend to use low-arousal emotions to conform and adjust to others (Choi & Hogg, 2020). Thus, the US Eurocentric scholarship focused on communication and cultures cannot be generalized easily in high-context cultures.

As we realized the inadequacy, the Asiacentric paradigm is a theoretical extension even a standalone paradigm, the discourse surrounding the ontology of the Asiacentric paradigm asserts that human beings are significantly impacted by various factors, including their association with political institutions, economic dominance, historical perspectives, religious convictions, and natural surroundings (Hofstede, 1983). The epistemological assumes that the Asiacentric paradigm makes everyone, and everything becomes meaningful to others (Miike, 2002). Developing a more all-encompassing theory of communication requires an examination of diverse cultures from around the globe. This entails adapting the current measurement tools and scales to account for this diversity (Curtis et al., 2019).

3. Research Framework

The objective of the present study is to examine how surface-level impact uncertainty management and anxiety management in line with the AUM theory, which indicates seven predictors and two outcomes in seven hypotheses.
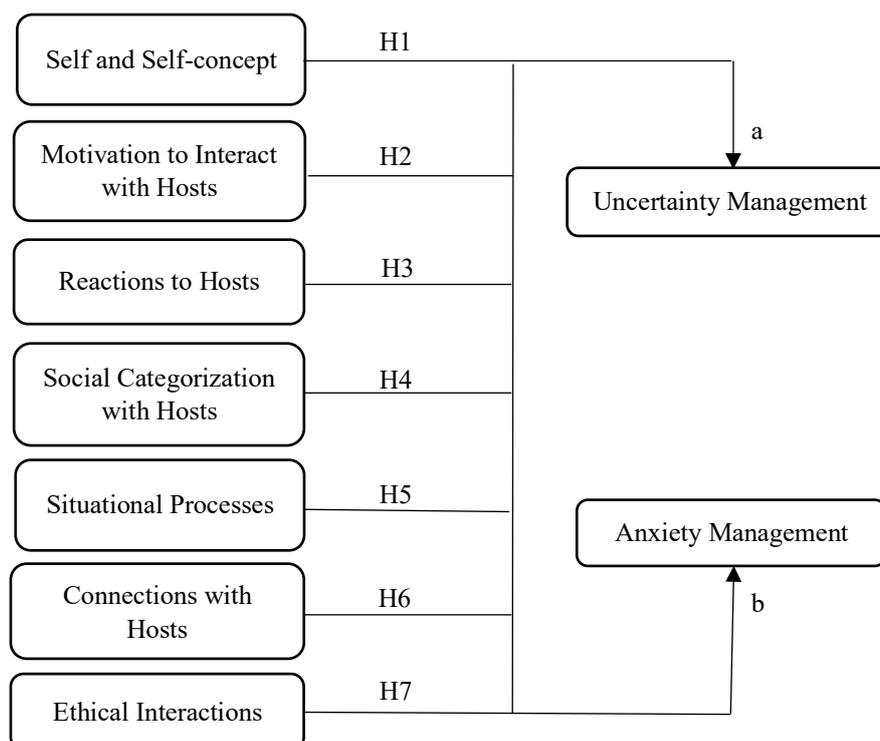

Figure 1: Research Model

Source: The Schematic Representation of AUM Theory Proposed by William B. Gudykunst (2005).

3.1. Self and Self-concept and Uncertainty /Anxiety Management

In the process of intergroup interaction, due to the different perceptions of strangers by different people, it is highlighted that the way individuals perceive themselves plays an active role (Neuliep, 2017). Therefore, higher reliance on social and personal identity leads to lower levels of anxiety and uncertainty management in individuals (Choi & Hogg, 2020). Thus, the self and self-concept are positively correlated to uncertainty and anxiety management.

H1: *Stronger self and self-concept towards Malaysia are correlated to uncertainty management (a) and anxiety management (b).*

3.2. Motivation to Interact and Uncertainty /Anxiety Management

When an individual interacts with a stranger, only by more accurately predicting and interpreting his or her behavior as well as the behavior of others can he or she be able to maintain sufficient motivation to interact with the stranger (Yoshitake, 2002). Therefore, motivation to interact with hosts towards Malaysia is positively correlated to uncertainty management and anxiety management:

H2: *Stronger motivation to interact with hosts towards Malaysia is correlated to uncertainty management (a) and anxiety management (b).*

3.3 Reactions to Interact and Uncertainty /Anxiety Management

When the information we already have does not match new information and is inconsistent with existing cognition, higher uncertainty about the future leads to more fear and anxiety (Choi & Hogg, 2020). When there is high uncertainty, strangers will ask each other to obtain the necessary information to enhance attribution confidence. Berger and Calabrese (1974) argued that the greater the number of communications, the greater the search for

information leading to a more intimate degree of communication. In short, interacting with strangers can help reduce uncertainty and anxiety. Those who are more comfortable with uncertainty and are better at predicting behavior tend to be less anxious when interacting with strangers. Thus, the reactions to interacting with hosts are positively correlated to uncertainty and anxiety management.

H3: *Positive reactions to interact with hosts towards Malaysia are correlated to uncertainty management (a) and anxiety management (b).*

3.4 Social Categorization and Uncertainty / Anxiety Management

Social categorization is the natural cognitive process by which people classify other members of society, such as male or female, old or young, black or Asian or white (Allport, 1954). In the presence of great uncertainty in social background, in-group bias can result due to people's habit of categorizing others into groups they are similar to (Hewstone & Willis, 2002). Some individuals, however, exhibit higher cognitive abilities to deal with uncertain situations (Choi & Hogg, 2020). High-ability people understand the similarities and differences between their group and stranger groups more deeply and reduce the uncertainty of social classification, to avoid exaggerating the differences between social groups, which is conducive to maintaining interest and clarity in information degrees (Huiwen et al., 2022). According to Gudykunst, social categories were positively correlated to uncertainty and anxiety management.

H4: *Higher levels of social categorization with hosts towards Malaysia are correlated to uncertainty management (a) and anxiety management (b).*

3.5 Situational Processes and Uncertainty / Anxiety Management

In a relationship, the social power that exists in one person can affect the perception and generalization ability of the other person (Krumhuber & Guinote, 2023). If individuals feel they have more power than the strangers they interact with, they generally experience lower levels of anxiety and uncertainty (Gudykunst, 1998). Anxiety is characterized by negative appraisal, uncertainty, and lack of control (Miceli & Castelfranchi, 2005). Cognitive theory suggests that once a negative state of mind is present, it renders the person powerless (i.e., low in control) (Choi & Hogg, 2020). Because managing uncertainty is a cognitive process, present in all mental processes and skills (e.g., memory, problem-solving, decision-making) in which individuals engage on a daily basis. Thus, the situational processes are positively correlated to uncertainty and anxiety management.

H5: *Increased situational processes towards Malaysia are correlated to uncertainty management (a) and anxiety management (b).*

3.6 Connections with Hosts and Uncertainty / Anxiety Management

Anxiety increases as an emotional response to a perceived assessment of a person's inability to effectively perform a social task due to social networks providing less than the required level of support (Hogan & Najarian, 2002). Thus, when individuals feel uncertain about how they will behave in certain social situations, they experience higher levels of self-disclosure worry (Lin et al., 2016). Attractiveness, however, can reduce uncertainty and anxiety when interacting with strangers (Gudykunst, 2005). Gudykunst (2005) argues that sharing social networks with strangers can also reduce anxiety and uncertainty. Therefore, when individuals share more of their social network with strangers, they experience less anxiety and more predictability of the stranger's behavior. Furthermore, anxiety and uncertainty are minimized when individuals have more frequent contact with strangers and their group members, and when there is a higher degree of interdependence between individuals and strangers. Thus, the connections with hosts are positively correlated with uncertainty and anxiety management.

H6: *More favourable connections with hosts towards Malaysia are correlated to uncertainty management (a) and anxiety management (b).*

3.7 Ethical Interaction and Uncertainty / Anxiety Management

Morality is the default norms and behavior evaluation standards of a social group (Bazerman & Gino, 2012). The clearer the norms and standards, the less people's uncertainty in predicting other behaviors (Hofstede, 1983). In addition, individuals with high self-worth moral identities are more likely to expand their moral horizons to include outgroup members and display more favorable attitudes toward helping them (Lin et al., 2016). Because when interactions are dignified, people become morally inclusive and fair, thereby meeting expectations for fair treatment and reducing anxiety in interactions. Thus, the ethical interaction with hosts is positively correlated to uncertainty and anxiety management.

H7: *Positive ethical interaction with hosts towards Malaysia is correlated to uncertainty management (a) and anxiety management (b).*

4. Research Methodology

In this study, the researchers employed a quantitative research approach, following previous work by Gudykunst and Nishida, aimed at addressing the empirical aspects of theoretical models of AUM. This method involved the collection of data through a survey that was designed based on the existing theoretical framework. The researchers

chose the quantitative method because it aligns with an empiricist paradigm, which emphasizes the importance of empirical evidence in supporting theories. To analyze the collected data, the researchers used IBM Amos, a software tool that is specifically designed for Structural Equation Modeling (SEM). This software is known for its ability to provide robust statistical analysis and generate generalizable results that can help gain new insights from the data. Structural equation modeling (SEM) is an advanced statistical methodology that permits researchers to assess intricate relationships between variables and establish models that can clarify the underlying patterns in the data.

4.1 Population & Sampling

The population being investigated is made up of present university students from two academic institutions, namely the University Putra Malaysia (UPM) and the University of Malaya (UM). Because the University Putra Malaysia (UPM) has the largest number of international students from 2020 to 2022, Based on the statics displayed, the total number of international students in UPM reached about 8024. And UM has 5205. UKM has 1368, USM has 3070, UTM has 4248, UMK has 223, UUM has 205. UiTM has 1500. Among these students in UPM and UM, it covers undergraduate to Ph.D. students and exchange students. Krejcie & Morgan (1970) calculate the sample size formula for a finite population. If the population is 10000, the sample size is 370. If the population is 15000, the sample size is 375. According to the sample size determination in survey research, Yamane's (1967) formula to calculate sample size in this research is 388. Due to the face-to-face distribution and under observation, finally attained a response rate of 100%.

4.2 Demographic

The demographic information of the participants, including nationality, gender, age, education level, duration of residence in Malaysia, and experience abroad, was recorded in the pie chart. The study participants were from various countries such as China, France, Iraq, Somalia, Iran, Germany, Morocco, Indonesia, Libya, Egypt, Pakistan, and others. In total, 39 countries participated in the study, with some students from Europe and Indonesia being exchange students. Their exchange program ran from September 2022 to February 2023, with a few students staying until July 2023.

Table 1: Nationality Distribution of International Students.

Nationalities among Population	N	Percentage %
China	45	11.60
Yemen	26	6.70
Iraq	15	3.87
Iran	11	2.84
Pakistan	15	3.87
Poland	12	3.09
Libya	9	2.32
Nigeria	12	3.09
France	10	2.58
Indonesia	12	3.09
Mauritius	6	1.55
Germany	8	2.06
Sri Lanka	5	1.29
Syria	10	2.58
India	10	2.58
Cameron	4	1.03
Italy	12	3.09
Qatar	11	2.84
Philippine	7	1.80
Rwanda	6	1.55
Egypt	9	2.32
Netherlands	11	2.84
Tanzania	7	1.80
Bangladesh	10	2.58
Palestine	9	2.32
South Africa	12	3.09
Japan	5	1.29
South Korea	4	1.03
Algeria	6	1.55
Austria	7	1.80
Afghanistan	12	3.09
Kenya	8	2.06

Nationalities among Population	N	Percentage %
Lesotho	3	0.77
Somalia	3	0.77
Morocco	4	1.03
Australia	8	2.06
Saudi Arabia	10	2.58
Jordan	9	2.32
Senegal	5	1.29
Sum	39	100

Source: Calculated by the author

The majority of the respondents are youth aged 19 to 33 (72.2%), and males took up the majority proportion (64.9%). Around half of the respondents live in Malaysia (51%) within 2 years, and only 6.2 percent of participants have just arrived in Malaysia. Besides, the majority of respondents (64.4%) have been to other countries before studying in Malaysia.

Table 2: Demographic Characteristics.

Demographic Characteristics	n	Percentage
Age		
19-26 years old	149	38.4
27-33 years old	131	33.8
34-40 years old	62	16.0
41 years old and above	46	11.8
Total	**388**	**100.0**
Gender		
Female	136	35.1
Male	252	64.9
Total	**388**	**100.0**
Educational Level		
Undergraduate student	120	31.0
Master student	115	29.6
Ph.D. student	153	39.4
Total	**388**	**100.0**
Duration of staying in Malaysia		
<1	100	25.8
1-2 years	98	25.2
3-5 years	132	34.0
>5 years	34	8.8
Just arrive in Malaysia	24	6.2
Total	**388**	**100.0**

Source: Calculated by the author

4.3 Analysis of Measurement Model

4.3.1 Convergent Validity

The researchers used a convergent validity analysis to examine the measurement model, following the suggestion of Hair et al. (1998), They calculated composite reliability values to determine the extent to which the variable indicators reflected the latent variable, which ranged from 0.88 to 0.93. These values exceeded the recommended level of 0.7 (Hair et al., 1998), indicating strong convergent validity. The average variances extracted, which reflected the overall amount of variance in the indicators accounted for by the latent variables, ranged from 0.583 to 0.974. All of the average variance extracted from the latent variables were above the recommended level of 0.5 (Hair et al., 1998), indicating good convergent validity.

Table 3: Convergent Validity Analysis.

Variables	Item	Factor Loading	C.A	C.R	A.V.E
Self and Self-concept	SS1	0.862	0.915	0.915	0.974
	SS2	0.843			
	SS3	0.861			
	SS4	0.852			
Motivation Interaction with Hosts	M1	0.851	0.889	0.889	0.727
	M2	0.865			
	M3	0.842			
Reactions to Hosts	R1	0.898	0.898	0.898	0.746

Variables	Item	Factor Loading	C.A	C.R	A.V.E
	R2	0.851			
	R3	0.841			
Social Categorization of Hosts	SC1	0.869	0.928	0.928	0.764
	SC2	0.874			
	SC3	0.893			
	SC4	0.859			
Situational Processes	SP1	0.847	0.913	0.913	0.967
	SP2	0.856			
	SP3	0.862			
	SP4	0.841			
Connections with Hosts	C1	0.883	0.922	0.922	0.747
	C2	0.857			
	C3	0.861			
	C4	0.856			
Ethical Interaction	EI1	0.848	0.891	0.891	0.732
	EI2	0.863			
	EI3	0.855			
Anxiety Management	AM1	0.859	0.880	0.880	0.710
	AM2	0.823			
	AM3	0.845			
Uncertainty Management	UM1	0.870	0.914	0.914	0.970
	UM2	0.834			
	UM3	0.835			

Source: Calculated by the author

4.3.2   Discriminant Validity

In addition, we conducted a test to ensure that our measurement model had discriminant validity, which is an essential requirement in validating a measurement model (Henseler et al., 2015). To achieve this, we applied the Fornell-Larker Criterion analysis, which compares the square of the AVE values with the correlation coefficients. As displayed in Table 3, we observed that the squared AVE values were greater than the corresponding correlation coefficients. Furthermore, we noted that the Heterotrait-Monotrait Ratio value of our measurement model was lower than the recommended threshold of 0.85 (Henseler et al., 2015). Therefore, we can confidently state that our measurement model has successfully met the discriminant validity criteria.

Table 4: The Average Variance Extracted and Squared Correlation between Variance (n=388).

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Anxiety management (1)	0.850								
Connection with hosts (2)	0.674	0.857							
Ethical interaction (3)	0.671	0.571	0.869						
Motivation to interact with hosts (4)	0.717	0.633	0.653	0.873					
Reaction to hosts (5)	0.761	0.656	0.670	0.702	0.863				
Self and self-concept (6)	0.675	0.594	0.595	0.601	0.661	0.865			
Situational categorization with hosts (7)	0.675	0.595	0.631	0.655	0.668	0.583	0.873		
Situational processes (8)	0.719	0.616	0.623	0.706	0.707	0.630	0.658	0.855	
Uncertainty management (9)	0.738	0.668	0.675	0.727	0.768	0.674	0.704	0.737	0.847

Source: Calculated by the author

4.4 Structural Model Testing

4.4.1   Goodness of Fit Indices

Based on the goodness of fit indices readings, the overall measurement model of Anxiety as IV was seen as a provider of sufficient fit of data with the chi-square reading of 717.727, df=585, p=0.001. The GFI, AGFI, CFI, NFI, and TLI were found to be living the values of 0.911, 0.895, 0.990, 0.941, and 0.988, relatively. While RMSEA was found to be at 0.023. Finally, the Relative Chi-sq was valued at 1.200. All of these values and readings indicate that the overall CFA (measurement model) can be seen as being able to fit the data sufficiently and, thus, requires no alterations.

Table 5: Summaries of the Goodness-of-Fit Indices of the Overall Measurement Model (Anxiety as DV).

CMIN	DF	CMIN/DF	RMSEA	GFI	AGFI	CFI	NFI	TLI
717.727	585	0.001	0.023	0.911	0.895	0.990	0.941	0.988

Source: Calculated by the author

Based on the goodness of fit indices readings, the overall measurement model of Uncertainty as IV was seen as a provider of sufficient fit of data with the chi-square reading of 729.647, df=598, p=0.000. The GFI, AGFI, CFI, NFI, and TLI were found to be living the values of 0.910, 0.894, 0.988, 0.939, and 0.987, relatively. While RMSEA was found to be at 0.023. Finally, the Relative Chi-sq was valued at 1.220. All of these values and readings indicate that the overall CFA (measurement model) can be seen as being able to fit the data sufficiently and thus requires no alterations.

Table 6: Summaries of the Goodness-of-Fit Indices of the Overall Measurement Model (Uncertainty as DV).

CMIN	DF	CMIN/DF	RMSEA	GFI	AGFI	CFI	NFI	TLI
729.647	598	0.000	0.024	0.910	0.894	0.988	0.939	0.987

Source: Calculated by the author

4.4.2 Direct Effect Analyse

In the structural model for this study, the direct effects of superficial causes as the independent variable and anxiety management /uncertainty management as the dependent variables were examined (i.e., H1a, H2a, H3a, H4a, H5a, H6a, H7a, H1b, H2b, H3b, H4b, H5b, H6b, H7b). The AMOS graphs of the structural model, together with standardized regression weights, are portrayed in Figure 2.
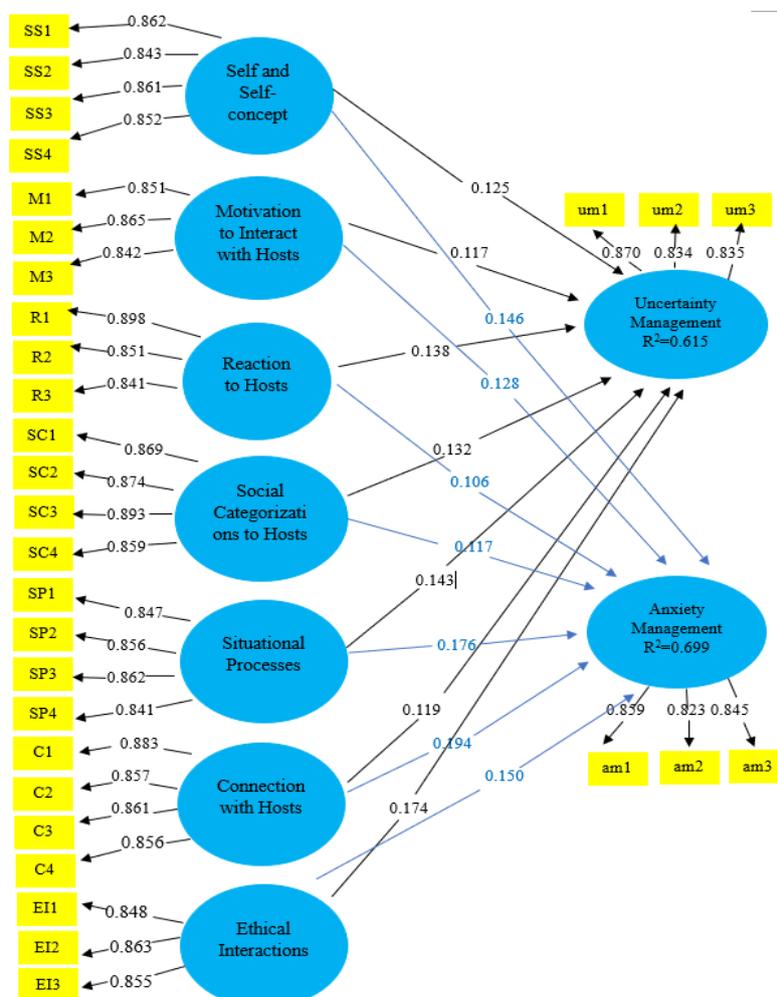
Figure 2: Coefficient of Determination (R²)

Source: Calculated by the author

An analysis of goodness-of-fit indices designates that the structural model adequately fitted data: $\chi2=436.667$, df=399, p=0.094, GFI=0.934, AGFI=0.918, CFI=0.996, TLI=0.995, IFI=0.996, RMSEA=0.016, and $\chi2$/df=1.094. The output indicates the value of R2 at 0.617 for anxiety management and the value of R2 at 0.531 for uncertainty management, respectively, in the direct path model. This figure indicates that the theoretical principles and model

proposed in this study the model has given explanations and predictions on the overall model results, which showed that 62% of the anxiety management could be estimated by using the seven exogenous constructs in the model, namely superficial causes in the direct path model. At the same time, 53% of the uncertainty management could be estimated by using the seven exogenous constructs in the model, namely superficial causes in the direct path model.

4.4.3   Results of Hypothesized Direct Effects

As shown in Table 6, the direct effect of motivation to interact with hosts (M) on uncertainty management was statistically not significant, as its value was 0.055, slightly higher than the commonly used significance level of 0.05. Besides, the direct effect of reactions to hosts (R) on anxiety management was statistically not significant, as its value was 0.058, slightly higher than the commonly used significance level of 0.05. On the other hand, the direct effect of connections with hosts (C) on anxiety management was statistically significant, as its p-value was 0.000. Thus, hypotheses H2a and H3b were not supported. While the hypothesis H1a, H3a, H4a, H5a, H6a, H7a, H1b, H2b, H4b, H5b, H6b, H7b were supported.

As discussed earlier, the twelve hypotheses, H1a and H3a to H7a; H1b, H2b, and H4b to H7b, explain the relationships between the exogenous variables (superficial causes) and uncertainty management and anxiety management. Table 6 shows the results of testing the coefficient parameter estimates for the expected direct effects of variables.

Table 7: Examining the Results of Hypothesized Direct Effects of the Variables in the Structural Model.

Construct			Estimate	S.E.	Beta	C.R.	*P*	Hypothesis Result
SS	→	UM	0.125	0.060	0.125	2.091	0.037	Supported
M	→	UM	0.118	0.061	0.117	1.923	0.055	Not Supported
R	→	UM	0.142	0.061	0.138	2.305	0.021	Supported
SC	→	UM	0.128	0.059	0.132	2.193	0.028	Supported
SP	→	UM	0.142	0.067	0.143	2.126	0.034	Supported
C	→	UM	0.114	0.058	0.119	1.977	0.048	Supported
EI	→	UM	0.173	0.063	0.174	2.765	0.006	Supported
SS	→	AM	0.147	0.056	0.146	2.606	0.009	Supported
M	→	AM	0.130	0.058	0.128	2.260	0.024	Supported
R	→	AM	0.109	0.058	0.106	1.895	0.058	Not Supported
SC	→	AM	0.114	0.055	0.117	2.074	0.038	Supported
SP	→	AM	0.175	0.063	0.176	2.793	0.005	Supported
C	→	AM	0.186	0.054	0.194	3.426	0.000	Supported
EI	→	AM	0.150	0.059	0.150	2.555	0.011	Supported

Source: Calculated by the author

Note: SS = self and self-concept, M = motivation to interact with hosts, R = reactions to hosts, SC = social categorization to hosts, SP = situational processes, C = connections with hosts, EI-ethical interaction, AM = anxiety management, UM = uncertainty management.

5.   Discussion

The objective of this study assess the antecedents (superficial causes) to predict uncertainty management and anxiety management in AUM theory, respectively. As the axiom proposed, the superficial causes predict uncertainty management and anxiety management, respectively.

The correlation between stronger self and self-concept towards Malaysia and uncertainty management implies that when students have a positive and confident self-perception in the Malaysian cultural context, they are more likely to effectively cope with and tolerate ambiguity, complexity, and unpredictability. Similarly, the correlation between stronger self and self-concept towards Malaysia and anxiety management suggests that when students have a positive self-concept and identify with the host country, they are more capable of regulating their anxiety in intercultural encounters. They are likely to have a sense of belonging, feel more comfortable in the new cultural environment, and have a greater ability to cope with potential challenges and stressors, leading to better anxiety management (Nadeem & Koschmann, 2021).

While in this research, the findings showed different results from axioms proposed by Gudykunst, the motivation to interact with hosts fails to predict uncertainty management. Therefore, the correlation between stronger motivation to interact with hosts and anxiety management suggests that when students are highly motivated to engage with hosts, they are better able to regulate their anxiety in intercultural encounters.

Mook (1996) argues that motivation plays a crucial role in decision-making, guiding individuals in choosing one course of action over another, determining how to do it, and what to do next. In interpersonal and cross-cultural communication, uncertainty can have negative consequences and cause unfavorable responses (Gudykunst, 1985).

Experiencing negative emotions and feelings in intercultural communication can have adverse consequences on an individual's motivation to engage in similar interactions in both interpersonal and cross-cultural contexts.

Therefore, the correlation between stronger motivation to interact with hosts and anxiety management suggests that when students are highly motivated to engage with hosts, they are better able to regulate their anxiety in intercultural encounters. Motivation plays a crucial role in reducing anxiety because it provides a positive focus, enhances self-confidence, and promotes a sense of purpose and control in intercultural interactions.

The correlation between positive reactions to interact with hosts and uncertainty management suggests that when students have positive experiences and attitudes towards interacting with the local hosts, they are more likely to effectively cope with ambiguity, complexity, and unpredictability in the intercultural environment (Gao & Gudykuns, 1990). Positive interactions with hosts can provide students with a sense of familiarity, support, and a deeper understanding of the local culture, which contributes to their ability to manage uncertainty.

Furthermore, the present study's findings suggest that the ability to manage anxiety cannot be predicted solely based on reactions to hosts. Interactions that occur across cultural boundaries may pose a threat to individuals, as they become aware that their previously held assumptions, which were taken for granted, are no longer applicable when communicating with individuals from different cultural backgrounds (Kim, 2001). The emotional experiences that individuals encounter during their stay abroad are influenced by several factors, including the novelty and unfamiliarity of the circumstances, disconfirmed expectations, a lack of emotional support leading to a sense of exclusion, ambiguity in interactions with hosts, and confrontations with one's prejudice and ethnocentrism. Notably, the five themes identified above are causally associated with the intense feelings experienced by individuals during their time overseas (Kedia & Mukherjia, 1999).

The correlation between higher levels of social categorization with hosts and uncertainty management suggests that when students feel a sense of social connectedness and perceive themselves as part of the same social group as the hosts, they are more likely to effectively cope with uncertainty. Social categorization can provide a sense of familiarity and commonality, reducing feelings of strangeness and increasing the willingness to engage in intercultural interactions. Similarly, the correlation between higher levels of social categorization with hosts and anxiety management indicates that when students feel socially connected to the hosts, they are more capable of regulating their anxiety in intercultural encounters. Social categorization can foster a sense of belonging and reduce the perceived social distance between individuals, leading to increased comfort and reduced anxiety in social interactions (Huiwen et al., 2022).

The correlation between increased situational processes toward Malaysia and uncertainty management suggests that when students are exposed to and actively engage in various intercultural situations, they are more likely to effectively cope with uncertainty. Engaging with different aspects of the host culture, such as participating in cultural activities, trying local cuisine, and attending social events, can contribute to a greater sense of familiarity and confidence in navigating new situations. Similarly, the correlation between increased situational processes toward Malaysia and anxiety management indicates that when students actively involve themselves in intercultural experiences, they are more capable of regulating their anxiety. Engaging with the host culture and being proactive in social interactions can help students build social support networks, develop coping strategies, and increase their overall sense of adaptability, reducing anxiety in unfamiliar situations (Chen & Qian, 2018).

The correlation between more favorable connections with hosts and uncertainty management suggests that when student sojourners experience more positive and supportive interactions with their host counterparts in Malaysia, they tend to exhibit a heightened ability to manage the uncertainties they encounter. Similarly, the correlation between more favorable connections with hosts and anxiety management suggests that when students have positive and supportive relationships with hosts, they are more capable of regulating their anxiety in intercultural encounters. Positive connections provide emotional support, a sense of security, and social validation, which can help reduce feelings of isolation and uncertainty, leading to better anxiety management (Farooq, 2018).

The correlation between positive ethical interaction with hosts and uncertainty management suggests that when students engage in respectful and ethical interactions, they are more likely to cope with uncertainty effectively. Ethical behavior promotes trust and mutual understanding between individuals from different cultural backgrounds, reducing feelings of ambiguity and facilitating smoother cross-cultural communication. Similarly, the correlation between positive ethical interaction with hosts and anxiety management indicates that when students engage in ethical and respectful interactions, they are more capable of regulating their anxiety. Ethical behavior fosters a positive and supportive atmosphere, which can reduce potential social stressors and alleviate anxiety in intercultural encounters (Huiwen et al., 2022).

6. Conclusion

The main aim of this study is to investigate the connection between the superficial factors and results in the theoretical model of the AUM Theory, specifically in public universities in Malaysia, using a survey questionnaire. The results of this study provide both theoretical and empirical evidence to confirm the validity of the partial model. On the part of superficial causes and basic causes, most antecedents can predict the outcomes (anxiety

/uncertainty management); these findings contribute to the literature gap surrounding the Axiom in the AUM theory.

7.   Limitations & Recommendations

There are certainly some areas essential to be discovered in Malaysia. For that reason, the scholar of this study offers some recommendations: The upcoming investigation may add other variables to the effect to validate the current model. The theoretical model of AUM Theory can be modified into training; thus, further exploration can be the effectiveness of intercultural communication training among international students. This study's sample consisted solely of the public university. Additional research might be conducted to see if the proposed model has a similar effect at other levels, such as the multi-cultural company cross-border global project. The potential investigation should be piloted using measurements of academic performance.

Conflicts of Interest: The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this study.

Author contribution statements: First author conducts and completes conceptualization methodology, formal analysis, investigation, writing original draft, project administration, software, validation, data curation, resources, writing review and editing, and founding. Dr. Norliana, the chairman of my committee, provided long-term guidance on theoretical conceptualization. Like other supervisors, Dr. Tham Jer Sern taught me how to write academic papers and review them. Dr Rozmiza reviewed the papers. Especially, Pro. Li taught me the school of human communication and reviewing papers.

Ethical Consideration Statement: This study's ethical approval was obtained from the Ethics Committee for Research Involving Human Subjects Universiti Putra Malaysia with the approval number (JKEUPM-2022-482) on 26 August 2022. The project research number is UPM/TNCPI/RMC/JKEUPM/1.4.18.2 (JKEUPM).

Data Availability Statement: Available on demand.

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