

# Predictors of Cross-Cultural Adaptability Among International Postgraduate Students in A Malaysian Research University: A Quantitative Correlational Study

## ABSTRACT

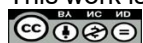
**Authors:** Siti Noormi Alias<sup>1</sup> and Nur Aina Khadijah Azhari <sup>1\*</sup>

**Affiliation:** <sup>1</sup>Faculty of Educational Studies, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia.

\*Corresponding author:  
[sitinoormi@upm.edu.my](mailto:sitinoormi@upm.edu.my)

**Received:** 31/12/2025 |  
**First Revision:** 14/1/2026 |  
**Second Revision:** 15/4/2026 |  
**Accepted:** 15/5/2026

This work is licensed under a



Creative Commons Attribution 4.0 International License

APA citation for this article:

Despite the increasing enrolment of international students in Malaysian public universities, empirical understanding of the cross-cultural adaptation process within the Malaysian context remains limited. Grounded in Acculturation Theory, this study examines the predictive roles of emotional intelligence, resilience, and social support to cross-cultural adaptability among international postgraduate students. A quantitative research design was employed, with data collected from international postgraduate students using a random sampling technique. Validated instruments were utilised, including the Trait Emotional Intelligence Questionnaire, Resilience Scale, Perceived Social Support Questionnaire, and the Generic Sense of Ability to Adapt Scale (GSAAS). Multiple regression analysis revealed that emotional intelligence, resilience, and social support collectively explained 33% of the variance in cross-cultural adaptability. Resilience emerged as the strongest predictor ( $\beta = .468, p < .001$ ), followed by emotional intelligence ( $\beta = .338, p < .001$ ) and social support ( $\beta = .261, p < .001$ ). The findings indicate that internal psychological resources, particularly resilience and emotional intelligence, play a dominant role in facilitating effective cultural adjustment, while social support serves as an important contextual enabler. This study contributes to the literature by empirically providing support consistent with Acculturation Theory within the Malaysian higher education context and highlights the need for university policies and intervention programmes that strengthen students' psychological readiness and institutional support mechanisms to enhance successful cross-cultural adaptation.

**Keywords:** Cross-Cultural Adaptability, Resilience, Social Support, Emotional Intelligence, Malaysian Culture, Higher Education, International Students

## 1. Introduction

The mobility of international students has become a defining feature of global higher education, reflecting the increasing interconnectedness of academic systems and the intensifying competition among universities to build international visibility. Worldwide, the number of students pursuing education outside their home countries continues to rise, driven by the pursuit of high-quality academic opportunities, research exposure, and enhanced employability in a globalised labour market. International students contribute significantly to the cultural, academic, and economic vitality of host institutions, enriching campus diversity and enhancing cross-cultural learning environments. Yet, despite these contributions, a substantial body of research highlights that international students frequently encounter complex challenges in adjusting to new academic systems, communication norms, and cultural contexts, making cross-cultural adaptability an essential component of their overall student experience (Zhai & Razali, 2022).

Globally, postgraduate enrolment is increasing as universities place greater emphasis on research productivity, knowledge innovation, and advanced professional training. This trend positions postgraduate international students at the centre of global research and intellectual exchange. However, postgraduate studies often require higher levels of academic autonomy, critical thinking, and engagement in scholarly communities, in which demands that may intensify the pressures associated with cultural adjustment (Sam, Jamil, & Md Zain, 2024). Within this international landscape, Malaysia has emerged as a competitive destination, attracting students from more than 150 countries. As of the third quarter of 2025, a total of 23,633 international postgraduate students were registered in Master's and PhD programmes across Malaysian universities, signalling strong growth in the nation's internationalisation agenda (Education Malaysia Global Services, 2025). Malaysia's aspiration to become a prominent regional and global education hub is supported by government initiatives that promote research collaboration, international academic partnerships, and institutional excellence.

Malaysia's unique sociocultural environment further enhances its attractiveness for international students. As a multiracial and multireligious nation, Malaysia embraces cultural pluralism while positioning Islam as an important element of its national identity (Ebrahimi, Yusoff, & Idris, 2025). Its longstanding tradition of religious tolerance and multicultural coexistence has contributed to social stability, making it a compelling environment for international learners seeking a supportive and diverse cultural setting (Zawawi, Zain, Embong, & Alwi, (2022). The unique multicultural environment in Malaysia allows it to be one of the most important centres for international education, thus drawing foreigners into its culturally rich and accommodative environment (Adams, & Velarde, 2021). However, despite of these strengths, the rapid increase in international student numbers has raised concerns related to institutional readiness to provide adequate academic, psychological, and social support among researchers and practitioners including higher education providers (HEIs) (Setti, Sommovigo, & Argentero, 2022). Consequently, there have been numerous calls for more research aimed at identifying factors driving cross-cultural adaptability among international postgraduate students. International students often face challenges such as cultural distance, language barriers, limited social support networks, and heightened academic pressures, all of which may affect their well-being and academic performance (Zhai & Razali, 2022).

These issues highlight several important research gaps. Empirically, most studies on international student adjustment have been conducted in western and developed countries, with limited investigations focusing on Southeast Asia or the Malaysian context. Moreover, existing studies in Malaysia tend to examine general forms of adjustment without addressing the psychological and socio-emotional factors such as resilience, emotional intelligence, and social support that may facilitate cross-cultural adaptability among postgraduate international students. Cross-cultural adaptability briefly describes the extent one is able to adapt and thrive within another culture. Detailed conceptualization of cross-cultural adaptability will be discussed in the subsequent section. Theoretically, there is insufficient integration of more contemporary psychological theories that emphasise adaptive capacities. The present study addresses this gap by drawing on Acculturation Theory which captures psychological and social learning into cultural navigation processes.

Despite Malaysia's internationalisation agenda, there remains a practical gap in institutional strategies that support international postgraduate students. Current support systems are often generic and not tailored to the varying emotional and psychological needs of international learners, especially those enrolled in research-intensive programmes. Identifying the roles of resilience, emotional intelligence, and social support can inform more targeted and evidence-driven interventions that enhance international students' adaptability and overall academic experience. Therefore, this study aims to investigate the predictive roles of resilience, emotional intelligence, and social support to cross-cultural adaptability among international postgraduate students at a selected Malaysian research university. Findings of this study are expected to benefit HEIs, ministries, and non-governmental agencies in navigating social support and cultural exchange programs among postgraduate international students.

This study extends the literature by (a) analysing international postgraduate students at a selected Malaysian research university; (b) using the GSAAS instrument for culture adaptation; and (c) simultaneously modelling internal resources (EI, resilience) and external support (social support) on cross-cultural adaptability.

## **2. Literature Review**

### **2.1. Conceptualizing Cross-cultural Adaptability**

Cross-cultural adaptability refers to the process by which individuals become more proficient and compatible with a new culture. It involves both the willingness and the capacity of individuals to adjust their behaviour in accordance with the dominant norms, values, beliefs, customs, and social expectations that characterize a particular society or geographical context (Chen, Xu, Shi & Liu, 2025). It can be understood as a dynamic process in which individuals, shaped by cultural influences, continuously regulate and adjust themselves to unfamiliar cultural environments, leading to the development of cultural identity (Chen, 2022). Setti, Sommovigo, and Argentero (2022) asserted that psychological comfort in a foreign country can be considered as an outcome of successful cross-cultural. This process involves adjusting to culture shock, achieving psychological adaptation, and interacting effectively within the new cultural context (Chang, Yuan, & Chuang, 2013). The literature on cross-cultural adjustment generally examines it through two primary lenses, which is stress and coping, or culture learning (Young & Schartner, 2014) as the phenomenon took place in the social setting.

International education, in particular, provide valuable opportunities for cross-cultural learning and communication. However, they may also face several challenges including language barrier, diverse educational and cultural backgrounds, relational difficulties, loneliness, and racial discrimination that hinder their ability to fully engage in new learning experiences (Zhai & Razali, 2022). Therefore, international students often struggle to interact with local students and adapt to the host country environment. Overcoming these obstacles is essential for successful adjustment. In accordance, cross-cultural adaptation can be understood as the process through which individuals acquire new cultural knowledge, develop necessary skills, and gradually integrate into the host culture. In this study, cross-cultural adaptability is conceptualised as a general personal capacity to adjust effectively across diverse cultural contexts, consistent with the operationalisation of the Generic Sense of Ability to Adapt Scale (GSAAS) (Franken et al., 2023). In contrast, cross-cultural adjustment/adaptation is treated as a context-specific outcome, reflecting an individual's psychological and behavioural functioning within a particular host culture. Cross-cultural adaptability in this study represents a broader, trait-like capability that facilitates successful adjustment outcomes in specific intercultural settings.

## **2.2 Mechanism of Cross-cultural Adaptability from Acculturation Theory**

Acculturation Theory provides a useful framework for explaining the mechanisms of cross-cultural adaptation and the roles of emotional intelligence, resilience, and social support in facilitating successful adjustment. The theory posits that cross-cultural adaptability involves individuals' psychological and behavioural capacity to adjust and "fit in" with a new cultural environment. According to Berry (1997), acculturation involves four strategies: integration, assimilation, separation, and marginalisation. According to this framework, individuals adopt one of four acculturation strategies based on their orientation towards their original culture and the host culture: integration (maintaining one's original culture while engaging with the host culture), assimilation (relinquishing the original culture in favour of the host culture), separation (maintaining the original culture while avoiding interaction with the host culture), and marginalisation (loss of connection to both original and host cultures).

This adaptive process reflects a natural human tendency to seek internal equilibrium when confronted with unfamiliar social norms, values, and practices. Adaptation often begins with psychological and physiological strain resulting from displacement, commonly recognised as culture shock (Kim, 2017). Through continuous cultural learning, interaction, and experience within the host environment, individuals gradually develop greater emotional stability and functional competence. Over time, these cumulative experiences enable individuals to perform more effectively and attain psychological comfort in the host society. Although integrative communication theories (e.g., Kim, 2017) highlight communication competence in adaptation, this study is grounded in Acculturation Theory, focusing on cultural orientation and acculturation strategies.

Within Acculturation Theory, environmental conditions are recognised as important factors that shape individuals' ability to adopt adaptive acculturation strategies such as integration. In particular, external resources, especially social and institutional support within the host country can facilitate more effective cultural engagement by reducing acculturative stress and promoting psychological well-being (Berry, 2006; Ward & Fischer, 2008). Such support systems act as contextual enablers that interact with individual-level characteristics, including emotional intelligence, in shaping cross-cultural adaptability.

Individuals with higher emotional intelligence are better equipped to perceive, regulate, and respond appropriately to emotional experiences arising from cultural transitions. These internal capabilities are further reinforced by supportive environments, where access to peer networks, institutional guidance, and inclusive policies enhances individuals' confidence and capacity to engage with the host culture. Similarly, resilience supports sustained adaptive functioning in the face of cultural challenges (Fletcher & Sarkar, 2013), particularly when complemented by external support mechanisms.

In the Malaysian higher education context, institutional practices such as the use of English as the medium of instruction, orientation programmes, peer-mentoring systems, counselling services, and culturally inclusive campus initiatives can be understood as structural facilitators that support the integration strategy outlined in acculturation theory. These initiatives reduce communication barriers, increase accessibility to academic and social resources, and promote a sense of belonging among international students. Rather than serving as background context alone, these institutional features function as enabling conditions that interact with individual psychological resources, such as emotional intelligence to influence cross-cultural adaptability outcomes. When both internal capacities and external institutional supports are aligned, international students are more likely to achieve effective adaptation and sustain positive academic and social functioning in the host environment.

### **2.3. Postgraduate Studies in Malaysia**

International education is perceived as important for career development as it provides the individual with international experience (Chang, Yuan, & Chuang, 2013). Singh and Jack (2018) specifically highlight three major benefits of studying abroad that are associated with economic, educational, social, and cultural pull factors, namely enhanced academic achievement, development of knowledge and skills, and meaningful contributions to the home country upon return. Postgraduate students, who are often regarded as adult learners, differ from traditional-aged students in several important ways. They are typically self-directed and autonomous, and they enter higher education voluntarily and with clearer personal and professional goals. Consequently, they are generally expected to take greater responsibility for their learning processes and broader life decisions (Kapur, 2015).

In many countries, including Malaysia, postgraduate education is commonly offered in three modes, namely research, mixed mode and coursework, at both the master's and Doctor of Philosophy (PhD) levels. Research universities are often the preferred choice for students who seek academic specialization and intend to pursue careers in academia, beyond other considerations such as course structure and institutional prestige. In Malaysia, only five universities are designated as research universities, and they are widely recognized for their substantial contributions to research, knowledge production, and academic development. Consequently, it is widely acknowledged that the standards established at research universities are higher than those of other public universities (Altbach, 2007).

The challenges of studying at research universities extend beyond publication requirements and academic performance alone. For international postgraduate students in particular, adapting to Malaysia's cultural context, social norms, and local values can present substantial difficulties if these issues are not addressed proactively. Although English is commonly used as the primary medium of instruction and communication for international students at Malaysian research universities, linguistic accessibility does not necessarily eliminate challenges related to cultural

adjustment, social integration, and everyday interactions. Differences in communication styles, academic conventions, and social practices may continue to affect students' learning experiences and psychological adjustment, thereby influencing both academic outcomes and overall well-being.

However, Malaysia's status as a multiracial society, comprising three major ethnic groups, namely Malays, Chinese, and Indians, may offer certain advantages to international postgraduate students, particularly those who share similarities in customs, food, and cultural practices with one or more of these communities. Such cultural familiarity may facilitate initial adjustment, promote a sense of belonging, and reduce culture shock during the early stages of transition.

## **2.4. Factors Influencing Cross-cultural Adaptation and Hypothesis Development**

Based on the previous discussion, this study highlights the predictive roles of emotional intelligence, resilience, social support and cross-cultural adaptability among international postgraduate students. A review of prior literature suggests that studies integrating all three predictors in the context of cross-cultural adaptability remain scarce. Consequently, there is insufficient evidence to establish the relative dominance of each predictor.

### **2.4.1. Emotional Intelligence**

Emotions are an integral aspect of an individual's personality and life, profoundly influencing personal and professional success. Emotional intelligence, as a cornerstone of human behaviour, enables individuals to effectively express their inner feelings and navigate their environment. By combining emotions with thought, individuals experience a deeper understanding of feelings, which act as powerful motivators, driving immediate action and offering solutions to challenges (Kant, 2019). Conversely, individuals with low emotional intelligence often face difficulties in managing stress, with research underscoring the significant relationship between emotional intelligence and stress management (Sharma & Kumar, 2016). During periods of intense tension, people employ various strategies to cope with stress including search for in depth information and increase frequency of social interactions.

In educational contexts, emotionally supportive environments foster trust and a sense of connection, enhancing students' motivation and academic performance. Such settings encourage risk-taking, exploration of new ideas, and greater satisfaction with studies, contributing to a positive learning climate that booster's academic outcomes (Higgins & BuShell, 2018). Individuals with high emotional intelligence excel in managing interpersonal relationships, regulating their reactions, and controlling negative emotions, thereby maintaining autonomy in their lives (Gebregergis, Huang, & Hong, 2020). This concept hinges on recognizing and understanding one's emotions, guiding emotional responses, and assisting others in managing theirs.

Furthermore, emotional intelligence nurtures self-awareness, empathy, and value-driven behaviours. Students with high emotional intelligence engage in altruistic and assertive actions, participate in team-based activities, and demonstrate leadership qualities. Academic activities such as group projects, role-playing, and collaborative exercises not only build these traits but also complement academic achievements (Chandra, 2021). Research indicates that individuals with higher emotional intelligence are better equipped to manage stress and

navigate the challenges associated with cross-cultural transitions (Shuo et al., 2022). Based on the preceding discussion, despite the absence of specified effect size, existing evidence indicates a potential positive predictive relationship between emotional intelligence and cross-cultural adaptability (e.g., Sundaramoorthy et al., 2025).

This study therefore, hypothesized that:

*HA1: There is a significant and positive predictive roles of emotional intelligence on cross-cultural adaptability among international postgraduate students in a Malaysian Research University*

#### **2.4.2. Resilience**

Resilience, a central concept in positive psychology, is a vital individual resource for coping with and overcoming adversities and perceived stress. It refers to the ability to bounce back (Vella & Pai, 2019). In relations to specific life context, Pooley and Cohen (2010, p. 34) defined resilience as “The potential to exhibit resourcefulness by using available internal and external recourses in response to different contextual and developmental challenges”. Life challenges varies according to individuals. It may be related to the capacity to adjust effectively when confronted with adversity, trauma, significant stress, or life disruptions, including challenges related to personal relationships, serious health conditions, or financial hardship.

Increasingly, research has focused on resilience’s role in mitigating the adverse effects of stressful experiences on psychological outcomes (Chi et al., 2016). Defined as the capacity to recover from adversity or difficult situations (Masten, 2001), resilience has been identified as a critical factor for the successful adjustment of international students. Traits associated with resilience are essential for managing change and are among the most reliable indicators of how well international students adapt to new environments.

Empirical studies reveal that resilience closely related to optimistic characteristics. Optimistic individuals are more likely to exhibiting greater adaptability to challenges than their less optimistic counterparts (Gómez Molinero et al., 2018). Resilience is also vital for maintaining positive mental health, defined as the ability to recover from and effectively manage challenging life situations. Among university and college students, promoting resilience has been shown to alleviate the negative emotions associated with stress and foster academic success (Radhamani & Kalaivani, 2021). Additionally, enhancing resilience has been linked to reduced depression and improved mental health outcomes, including diminished symptoms of anxiety and stress, in both students and adolescents. Based on the above discussion, although the effect size is not specified, there is evidence suggesting a significant predictive influence of resilience and cross-cultural adaptability (e.g., Duanaeva et al., 2023).

Accordingly, this study hypothesized that:

*HA2: There is a significant and positive predictive role of resilience and cross-cultural adaptability among international postgraduate students in a Malaysian Research University.*

#### **2.4.3. Social Support**

Social support refers to the assistance an individual receives through connections with others,

including family, friends, groups, and the broader community. In this study context, it is specified to the host country, which is Malaysia. This support system plays a vital role in individuals' mental health and overall quality of life, particularly among international postgraduate students. The absence of social support has been identified as a significant contributor to mental health challenges, such as depressive symptoms (Bukhari & Afzal, 2017), and negatively impacts students' quality of life (Dafaalla et al., 2016). Research highlights that social support from family and host country friends significantly enhances emotional, social, and academic performance.

Notably, for postgraduate international students, academician and friends, often become a more critical source of social support than family. Identifying specific sources of social support is crucial for promoting mental health and fostering the emotional, social, and academic adjustment of international students (Alsubaie, Stain, Webster, & Wadman, 2019). In particular, perceived support from family and teachers reduces the likelihood of depressive and anxiety symptoms and enhances subjective well-being (Hellfeldt, López-Romero, & Andershed, 2020). Lecturer, in particular, may serve as a critical support system for students experiencing social struggles.

Social support plays a pivotal role in the emotional and psychological adjustment of international students. It serves as a buffer against stress and enhances adaptability, enabling students to cope with the demands of studying abroad (Hidalgo-Fuentes et al., 2024). Moreover, higher perceived social support correlates positively with cultural adjustment, in which it reduces homesickness and academic pressures by reducing stress levels through effective coping strategies. Furthermore, students who actively engage with their social networks through friendships, peer support groups, or institutional resources tend to exhibit better cross-cultural adaptability (Bender et al., 2019). The type of social support received can vary in effectiveness based on cultural contexts. For instance, perceived social support enhances self-evaluations and positive self-cognition, which are critical for adapting to stressful academic environments (Zhou & Xiang, 2025). This suggests that social support play a significant role in individual adaptation processes to new environment. Based on the foregoing discussion, while the effect size remains unspecified, it is evident that social support is likely to have a positive predictive influence on cross-cultural adaptability (e.g., San & Guo, 2023).

Therefore, it is hypothesized that,

*HA3: There is a significant and positive predictive roles of social support and cross-cultural among international postgraduate students in a Malaysian Research University.*

#### **2.4.4. Research Framework**

Figure 1 presents the research framework of the study. The model proposes that emotional intelligence, resilience, and social support significantly enhance the likelihood of successful cross-cultural adaptation among international postgraduate students at a selected research university in Malaysia.

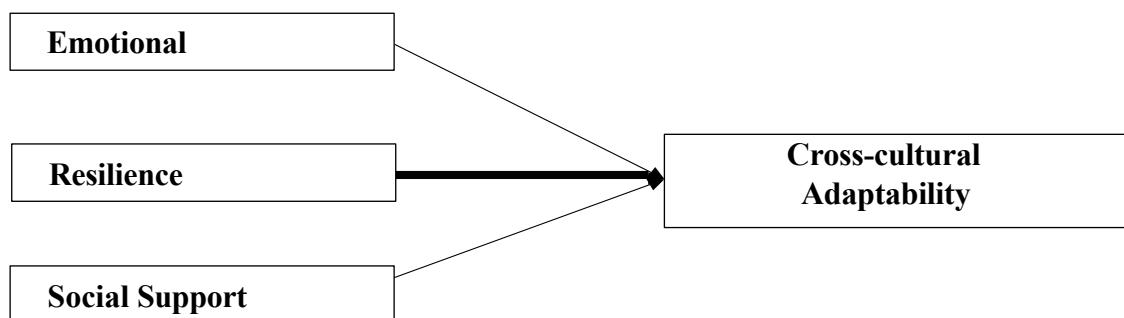


Figure 1. Research Framework

### 3. Methodology

This study adopts a quantitative, correlational research design to determine the predictive roles of EI, resilience, and social support on cross-cultural adaptability among international postgraduate students at a selected research university (RU) in Malaysia. To date, the RU reported a total of 7,922 international postgraduate students. Raosoft online sample size calculator proposed a minimum of 262 respondents needed for this study. Oversampling was then applied avoid issues of missing or unusable questionnaire resulted in final distributed questionnaire of 328 ( $262/.80 = 327.5 \approx 328$ ). The sample has been selected through simple random sampling method using Microsoft Excel.

This study adopts a quantitative, correlational research design to determine the predictive roles of EI, resilience, and social support on cross-cultural adaptability among international postgraduate students at a selected research university (RU) in Malaysia. To date, the RU reported a total of 7,922 international postgraduate students. Raosoft online sample size calculator proposed a minimum of 262 respondents needed for this study. Oversampling was then applied avoid issues of missing or unusable questionnaire resulted in final distributed questionnaire of 328 ( $262/.80 = 327.5 \approx 328$ ). The sample has been selected through simple random sampling method using microsoft excel.

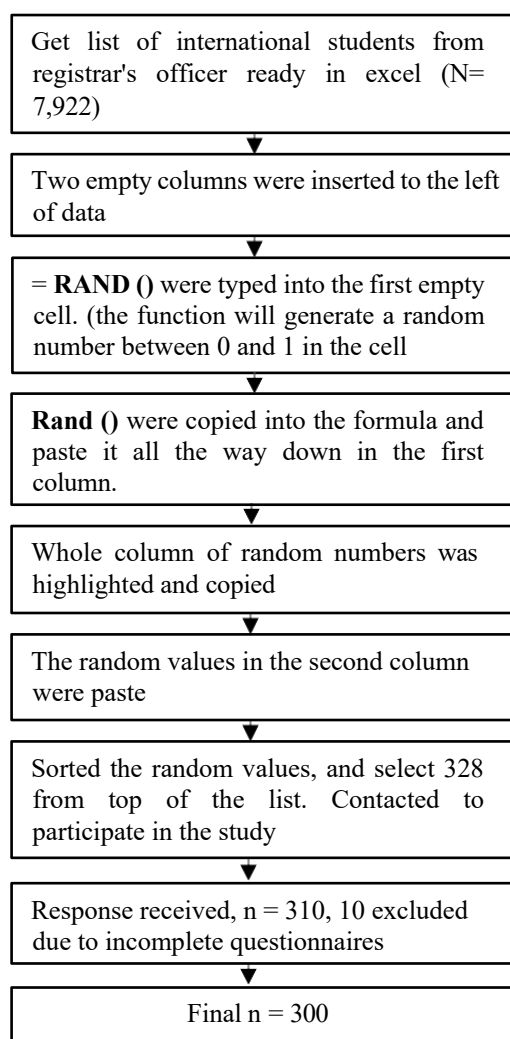


Figure 2. Sampling Procedure

### 3.1 Measurement and Instrument

A structured questionnaire has been developed based on adaptation made from existing well-established instruments. The questionnaire consists of five sections described as follows. It was distributed to the respondents through Google Form.

#### 3.1.1. Section A: Demographic Information

This section includes the gender, age, year of study and nationality of the respondents.

#### 3.1.2. Section B: Cross-Cultural Adaptability

Cross-cultural adaptability in this study is operationalized as the individual international postgraduate student's capabilities to adjust and adapt to Malaysia cultural environment. This includes understanding and integrating into the social norms, values, and behaviours of the Malaysia's culture while maintaining one's own cultural identity. This study has adapted Generic Sense of Ability to Adapt Scale (GSAAS) developed by Franken et al. (2023) to

measure cross-cultural adaptability. The instrument consists of 10 items and measured based on five- likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. Based on past studies, the reliability value of the instrument is 0.871. Example of an item is "I can cope well with my daily life in Malaysia".

GSAAS is a relatively new instrument that has been previously validated within a mental health outpatient sample. While the scale has demonstrated acceptable reliability and validity in its initial context, its application in the current study extends to a different population, namely international university students. To ensure its appropriateness for this context, the instrument underwent a validation process involving two experts review (discussed in the next section), where subject matter experts evaluated the items for clarity, relevance, and contextual suitability for the target population. This process helped to establish content validity and ensured that the items were understandable and appropriate for use among international students.

### **3.1.3. Section C: Emotional Intelligent**

Emotional Intelligence in this study is operationalized as the ability to recognize, understand, manage, and influence one's own emotions as well as the emotions of others. This study uses the Trait Emotional Intelligence Questionnaire (TEIQue) developed by Petrides (2009) to measure EI. The instrument consists of 30 items and is measured based on a seven-point Likert scale, ranging from 1 = Completely Strongly Disagree to 7 = Completely Strongly Agree. Cronbach's alpha of the instrument is 0.93 (Petrides et al., 2007), indicating strong internal consistency. Example of an item is "I can deal effectively with Malaysian people." All negative items were reverse coded before the actual analysis conducted.

The TEIQue employs a 7-point Likert scale to capture greater variability and sensitivity in respondents' emotional self-perceptions. In contrast, the other constructs in this study were measured using 5-point Likert scales, which are commonly used in social science research due to their simplicity and ease of response, particularly in multicultural samples. The use of different scale formats reflects adherence to the original validated instruments, thereby preserving their psychometric integrity. As the analyses were conducted using mean scores for each construct, differences in scale range were not expected to substantially bias the results. Nonetheless, scale reliability and variance were carefully examined to ensure comparability across measures.

### **3.1.4. Section D: Resilience**

Resilience in this study is operationalized as the capacity to recover from adversity, adapt to challenges, and maintain psychological well-being in the face of stress. Resilience Scale (Wagnild & Young, 1993) and Workplace Resilience Instrument (Mallak & Yildiz, 2016) were adapted in this study to measure resilience. The instrument consists of 22 items and is measured using a five-point Likert scale, ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The scale has demonstrated acceptable reliability in previous studies, with a Cronbach's alpha value of 0.78, indicating high internal consistency (Wagnild & Young, 1993). Example of an item is "I do not have to rely much on my friends at this university".

### **3.1.5 Section E: Social Support**

Social support in this study is operationalized as the availability of emotional, informational, and practical assistance provided by others, which helps individuals cope with stress. The Perceived Social Support Questionnaire (F-SozU K-14) developed by Kliem et al. (2015), is used to measure social support. The instrument consists of 14 items and is measured using a five-point Likert scale, ranging from 1 = Does not apply to 5 = Exactly applicable. Previous studies have reported good reliability for the F-SozU K-14, with a Cronbach's alpha of 0.94, indicating strong internal consistency (Kliem et al., 2015). Example of an item is "If I need to, I can borrow something from Malaysian friends or neighbours without any problems".

### 3.2. Validity and Reliability

Validity of the study instrument was determined based on face and content validity. Face validity was conducted by researchers when searching for the most suitable instrument from literature. The researchers have compared the individual items for each instrument with the operational definition of each construct. The researchers have selected the instrument which she perceived "on its surface" as mostly measuring the construct. The principal researcher of this study has more than 10 years conducting research in education and human resource development fields. Meanwhile, content validity of the study has been conducted by two experts which have more than five years working experience in academia and has involves in various types of research related to social adjustments. The experts were selected based on their familiarity with the constructs of emotional intelligence, social support, resilience, and cross-cultural adaptability, as well as their experience in instrument development and validation. They were asked to evaluate each item in terms of its relevance, clarity, and appropriateness for the target population of international students. To start with, the researcher has provided the experts with an excel sheet consisting of conceptual and operational definition of terms as well as list of items for each construct to be reviewed. Feedback and recommendations provided by expert were deeply considered to improve the items.

Next, researcher proceed with reliability analysis, specifically internal reliability using data from pilot and actual studies. Cronbach's alpha values were computed and compared between the pilot and main study phases to assess internal consistency. During the data screening process for the main study, items 7, 10, and 28 from the emotional intelligence construct were removed due to low corrected item-total correlations, as indicated by the "Cronbach's alpha if item deleted" analysis. In addition, items 3, 12, and 23 were excluded due to factor loadings below the acceptable threshold of .50, as presented in Table 3. Following the removal of these items, the emotional intelligence construct was reanalysed, resulting in a final scale comprising 24 items with improved reliability. A coefficient of 0.7 or more is widely viewed as an acceptable level for most social science research studies. Table 1 indicates the Cronbach's Alpha values of all study construct. Accordingly all instrument recorded good reliability.

Table 1. Cronbach's Alpha Values

| Construct                   | No. of Item | Pilot Study<br>(n=25) | No. of Item | Actual Study<br>(n=300) |
|-----------------------------|-------------|-----------------------|-------------|-------------------------|
| Cross-cultural Adaptability | 10          | 0.841                 | 10          | 0.852                   |
| Emotional Intelligence      | 30          | 0.708                 | 24          | 0.720                   |
| Resilience                  | 22          | 0.867                 | 22          | 0.876                   |
| Social Support              | 14          | 0.807                 | 14          | 0.861                   |

### 3.3. Pilot Study

A pilot study has been conducted prior to actual study involving 25 international postgraduate students, which took place around two weeks starting from 02 June 2025 to 16 June 2025. While a sample size of 25 is generally considered acceptable for preliminary reliability testing in social science research, it is acknowledged that the relatively small sample size, particularly in relation to the total number of items (76 items), may limit the precision and stability of the Cronbach’s alpha estimates. Therefore, the pilot results should be interpreted as indicative rather than definitive, serving primarily to identify potential issues in item clarity and internal consistency. Respondents were mostly recruited at the university's library. Feedback received by respondents during the pilot have been considered to improve the items structure to be clearer. Those participated during pilot study were eliminated from the population list for actual study.

### 3.4. Data Collection Procedure

To start with, the researcher managed to obtain approval and list of international postgraduate students from the university's School of Graduate Studies office. 328 sample has been identified from simple random sampling technique using Microsoft Excel. Reseachers personally contacted the respondents through email and phone call to make an appointment. After three months, there were 310 respondents completed the study. Upon initial screening, 10 instruments have to be eliminated due to incomplete questionnaire. Respond rate for the study therefore is 95%.

Table 2 indicates the demographic findings of the study. Descriptive statistics were used to summarize the demographic characteristics of the respondents, such as gender, age, year of study, and faculty and institute of study. The data are presented in Table 2 for clarity.

Table 2. Demographic Profile (n = 300)

| Demographic Factors          | <i>f</i> | %     |
|------------------------------|----------|-------|
| <b>Gender</b>                |          |       |
| Female                       | 228      | 76    |
| Male                         | 72       | 24    |
| <b>Age (years)</b>           |          |       |
| 21-25                        | 90       | 30    |
| 26-29                        | 144      | 48    |
| > 30                         | 66       | 22    |
| <b>Year of Study (years)</b> |          |       |
| 1                            | 72       | 24    |
| 2                            | 154      | 51.33 |
| > 3                          | 74       | 24.67 |
| <b>Nationality</b>           |          |       |
| China                        | 170      | 56.77 |
| Bangladesh                   | 45       | 14.99 |
| Indonesia                    | 34       | 11.48 |
| India                        | 19       | 6.31  |
| Pakistan                     | 17       | 5.61  |

|         |    |      |
|---------|----|------|
| Sudan   | 15 | 4.84 |
| Myanmar | 14 | 4.79 |

The data analysis on gender showed that from 300 respondents, 228 respondents are female (76.0%), aged 144 respondents between 26-29 years old, and at their second year at their second year in the university. On top of that, majority of postgraduate students at the research university are from China (56.77%).

### 3.5. Data Analysis

The statistical data from this study has been analysed using IBM SPSS version 29.0. Data screening were conducted prior to actual data analysis.

#### 3.5.1. Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) was conducted using principal components with promax rotation. Results in Table 3 indicated that items 3, 12, and 23 under emotional intelligence are recommended to be deleted due to low factor loadings (<.5). The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy was 0.92, indicating excellent suitability for factor analysis. Bartlett’s Test of Sphericity was significant,  $\chi^2(1,820) = 19,864.37, p < 0.001$ , confirming that the correlation matrix was factorable. The extracted factors explained approximately 74% of the total variance, exceeding the recommended threshold for social science research. All retained items demonstrated strong factor loadings and acceptable communalities ( $\geq 0.30$ ). In addition, based on Common Method Bias (Harman's Single Factor Test) Analysis, the percentage of variance is 32.67%, which is below the recommended threshold of 50%, suggesting that common method bias did not significantly affect the study results.

Table 3. Factor Loadings and Communalities Values

| Construct                   | Items | Factor loading |      |      |   |   |   |   |   | Communality |
|-----------------------------|-------|----------------|------|------|---|---|---|---|---|-------------|
|                             |       | 1              | 2    | 3    | 4 | 5 | 6 | 7 | 8 |             |
| Cross-cultural adaptability | 8     | .949           |      |      |   |   |   |   |   | .962        |
|                             | 2     | .932           |      |      |   |   |   |   |   | .885        |
|                             | 1     | .932           |      |      |   |   |   |   |   | .882        |
|                             | 10    | .801           |      |      |   |   |   |   |   | .871        |
|                             | 6     | .960           |      |      |   |   |   |   |   | .909        |
|                             | 4     | .924           |      |      |   |   |   |   |   | .755        |
|                             | 5     | .924           |      |      |   |   |   |   |   | .758        |
|                             | 3     | .573           |      |      |   |   |   |   |   | .882        |
|                             | 7     | .573           |      |      |   |   |   |   |   | .962        |
|                             | 9     | .529           |      |      |   |   |   |   |   | .885        |
| Emotional Intelligence      | 2     |                | .930 |      |   |   |   |   |   | .865        |
|                             | 4     |                | .916 |      |   |   |   |   |   | .839        |
|                             | 5     |                | .966 |      |   |   |   |   |   | .933        |
|                             | 6     |                | .684 |      |   |   |   |   |   | .468        |
|                             | 9     |                | .953 |      |   |   |   |   |   | .908        |
|                             | 15    |                | .506 |      |   |   |   |   |   | .526        |
|                             | 16    |                | .868 |      |   |   |   |   |   | .754        |
|                             | 18    |                | .868 |      |   |   |   |   |   | .754        |
|                             | 30    |                | .556 |      |   |   |   |   |   | .539        |
|                             | 8     |                |      | .979 |   |   |   |   |   | .958        |

| Construct      | Items | Factor loading |   |      |      |      |      |      |      | Communality |
|----------------|-------|----------------|---|------|------|------|------|------|------|-------------|
|                |       | 1              | 2 | 3    | 4    | 5    | 6    | 7    | 8    |             |
|                | 11    |                |   | .861 |      |      |      |      |      | .741        |
|                | 12    |                |   | .459 |      |      |      |      |      | .611        |
|                | 13    |                |   | .981 |      |      |      |      |      | .962        |
|                | 14    |                |   | .838 |      |      |      |      |      | .702        |
|                | 17    |                |   | .858 |      |      |      |      |      | .736        |
|                | 22    |                |   | .858 |      |      |      |      |      | .736        |
|                | 23    |                |   | .450 |      |      |      |      |      | .603        |
|                | 25    |                |   | .908 |      |      |      |      |      | .825        |
|                | 19    |                |   |      | .755 |      |      |      |      | .570        |
|                | 20    |                |   |      | .789 |      |      |      |      | .623        |
|                | 26    |                |   |      | .888 |      |      |      |      | .789        |
|                | 27    |                |   |      | .966 |      |      |      |      | .933        |
|                | 1     |                |   |      |      | .813 |      |      |      | .661        |
|                | 3     |                |   |      |      | .457 |      |      |      | .609        |
|                | 21    |                |   |      |      | .735 |      |      |      | .540        |
|                | 24    |                |   |      |      | .980 |      |      |      | .960        |
|                | 29    |                |   |      |      | .536 |      |      |      | .677        |
| Resilience     | 1     |                |   |      |      |      | .719 |      |      | .725        |
|                | 2     |                |   |      |      |      | .782 |      |      | .785        |
|                | 3     |                |   |      |      |      | .851 |      |      | .754        |
|                | 4     |                |   |      |      |      | .791 |      |      | .818        |
|                | 5     |                |   |      |      |      | .777 |      |      | .695        |
|                | 6     |                |   |      |      |      | .815 |      |      | .669        |
|                | 7     |                |   |      |      |      | .913 |      |      | .587        |
|                | 8     |                |   |      |      |      | .882 |      |      | .624        |
|                | 9     |                |   |      |      |      | .782 |      |      | .795        |
|                | 10    |                |   |      |      |      | .913 |      |      | .607        |
|                | 11    |                |   |      |      |      | .851 |      |      | .764        |
|                | 12    |                |   |      |      |      | .791 |      |      | .828        |
|                | 13    |                |   |      |      |      | .808 |      |      | .687        |
|                | 14    |                |   |      |      |      | .814 |      |      | .732        |
|                | 15    |                |   |      |      |      | .778 |      |      | .552        |
|                | 16    |                |   |      |      |      | .828 |      |      | .808        |
|                | 17    |                |   |      |      |      | .851 |      |      | .774        |
|                | 18    |                |   |      |      |      | .823 |      |      | .842        |
|                | 19    |                |   |      |      |      | .722 |      |      | .743        |
|                | 20    |                |   |      |      |      | .828 |      |      | .838        |
|                | 21    |                |   |      |      |      | .814 |      |      | .722        |
|                | 22    |                |   |      |      |      | .851 |      |      | .724        |
| Social Support | 1     |                |   |      |      |      |      | .772 |      | .635        |
|                | 3     |                |   |      |      |      |      | .931 |      | .965        |
|                | 4     |                |   |      |      |      |      | .915 |      | .869        |
|                | 5     |                |   |      |      |      |      | .915 |      | .988        |
|                | 6     |                |   |      |      |      |      | .736 |      | .988        |
|                | 8     |                |   |      |      |      |      | .831 |      | .820        |
|                | 9     |                |   |      |      |      |      | .915 |      | .965        |
|                | 10    |                |   |      |      |      |      | .759 |      | .739        |
|                | 11    |                |   |      |      |      |      | .701 |      | .988        |
|                | 12    |                |   |      |      |      |      | .915 |      | .663        |
|                | 13    |                |   |      |      |      |      | .857 |      | .868        |
|                | 14    |                |   |      |      |      |      | .839 |      | .988        |
|                | 2     |                |   |      |      |      |      |      | .746 | .846        |
|                | 7     |                |   |      |      |      |      |      | .745 | .778        |

Data shows in Table 8 (based on correlation table) indicated that there are no issues on

multicollinearity between variables. Based on collinearity statistics in Table 9, Data conformed with all the assumptions needed for multiple linear regression analysis (Tolerance values > .1, VIF <10). Researcher then proceed with descriptive, correlation, and regression analysis.

### 3.5.2. Descriptive Analysis

Descriptive analysis (e.g., frequency, percentage, mean, and standard deviation) was conducted to analysed demographic information and to determine the level of constructs.

Table 4. Group Interval for 7-point Likert Scale

| Group Interval | Level Description |
|----------------|-------------------|
| 1.00 – 3.11    | Low (1)           |
| 3.12 – 5.03    | Moderate (2)      |
| 5.04 – 7.00    | High (3)          |

Source: Pallant (2020)

Table 5. Group Interval for 5-point Likert Scale

| Group Interval | Level Description |
|----------------|-------------------|
| 1.00 – 2.330   | Low (1)           |
| 2.331 – 3.660  | Moderate (2)      |
| 3.661 – 5.00   | High (3)          |

Source: Pallant (2020)

To determine the level of variables, the scales indicated in Table 4 and 5 were referred to.

### 3.5.3. Inferential Analysis

Pearson product moment correlation and multiple linear regression were used to determine the relationships between resilience, emotional intelligence, social support, and cross-cultural adaptability international postgraduate students at a selected research university in Malaysia. Hypothesis testing specifically based on the correlation analysis Guildford’s rule of Thumb indicated in Table 6 is used to interpret the nature of relationship between variables.

Table 6. Guilford’s Rule of Thumb

| r value < 0.20 | Correlation Strength |
|----------------|----------------------|
| < .20          | Negligible           |
| .20 - .40      | Low                  |
| .40 - < .70    | Moderate             |
| 0.70 - < 0.90  | Strong               |
| 0.90 - 1.00    | Very Strong          |

#### 4. Findings and Discussion

Findings of the study has been arranged according to statistical level of analysis begin with the descriptive analysis on the level of variables, correlation, and followed by regression analysis.

Table 7. Descriptive Analysis

| Variable                           | Frequency | Percentage | Mean | SD   |
|------------------------------------|-----------|------------|------|------|
| <b>Emotional Intelligence</b>      | 0         | 0          | 4.61 | 0.33 |
| Low (1 – 3.11)                     | 260       | 86.7       |      |      |
| Moderate (3.12 – 5.03)             | 60        | 13.3       |      |      |
| High (5.04 – 7.00)                 |           |            |      |      |
| <b>Resilience</b>                  | 0         | 0          | 4.22 | 0.59 |
| Low (1 – 2.330)                    | 0         | 0          |      |      |
| Moderate (2.331 – 3.660)           | 56        | 18.7       |      |      |
| High (3.661 – 5.00)                | 244       | 81.3       |      |      |
| <b>Social Support</b>              | 0         | 0          | 4.22 | 0.59 |
| Low (1 – 2.330)                    | 0         | 0          |      |      |
| Moderate (2.331 – 3.660)           | 56        | 18.7       |      |      |
| High (3.661 – 5.00)                | 244       | 81.3       |      |      |
| <b>Cross-cultural Adaptability</b> | 0         | 0          | 4.25 | 0.62 |
| Low (1 – 2.330)                    | 0         | 0          |      |      |
| Moderate (2.331 – 3.660)           | 56        | 18.7       |      |      |
| High (3.661 – 5.00)                | 244       | 81.3       |      |      |

Table 7 indicated that there is a high level of EI at (M = 4.61, SD = 0.33), resilience (M = 4.22, SD = 0.59), social support was (M = 4.22, SD = 0.59), and cross-cultural adaptability (M = 4.25, SD = 0.62) among respondents of this study. Therefore, it can be interpreted that all of these international postgraduate students, which considered as adult learners are mentally (emotional intelligence and resilience) prepared with their decision to study abroad.

Next, Table 8 highlights the correlation analysis results between cross-cultural adaptability (the dependent variable) and the independent variables. Emotional Intelligence (EI), Resilience, and Social Support. The analysis was conducted using Pearson's correlation coefficient.

Table 8. Correlation Matrix between Constructs (n=300)

| Construct              | Cross- cultural Adaptability | EI      | Resilient |
|------------------------|------------------------------|---------|-----------|
| Emotional intelligence | 326**                        |         |           |
| Resilience             | 748**                        | 0.390** |           |
| Social support         | 547**                        | 0.307** | 0.281**   |

Note: \*\* result is significant at 0.01 level (2-tailed).

Results in Table 8 show that emotional intelligence ( $r = 0.326$ ) has positive and low relationship with cross-cultural adaptability. Resilience ( $r = 0.748$ ) indicated positive and strong relationship with cross-cultural adaptability. Meanwhile, social support ( $r = 0.547$ ) was found to relate moderately and positively to cross-cultural adaptability. Further reinforcement of this

conclusion is provided by the regression analyses reported in Table 9, which confirm the significant predictive effects of these variables on cross-cultural adaptability.

Prior to conducting multiple linear regression analysis, several key assumptions were assessed to ensure the validity of the results. Normality of residuals was examined through visual inspection of histograms and normal probability (P-P) plots, which indicated that the residuals were approximately normally distributed. Linearity and homoscedasticity were assessed through scatterplots of standardized residuals against predicted values, which showed no clear patterns, suggesting that the assumptions of linearity and homoscedasticity were met. Independence of errors was evaluated using the Durbin–Watson statistic, with values falling within the acceptable range, indicating no significant autocorrelation. Multicollinearity was assessed using Variance Inflation Factor (VIF) values, all of which were below the recommended threshold, confirming the absence of multicollinearity issues among the predictor variables.

Table 9. Regression Analysis between EI, Resilience and Social Support towards Cross-cultural Adaptability

| Variable               | Unstandardized Coefficients B | Std. Error | Standardized Coefficients, Beta | t     | Sig -p | 95% confidence interval for B |             | Collinearity statistics |      |
|------------------------|-------------------------------|------------|---------------------------------|-------|--------|-------------------------------|-------------|-------------------------|------|
|                        |                               |            |                                 |       |        | Lower bound                   | Upper bound | Tolerance               | VIF  |
| Constant               | 1.867                         | 0.141      | -                               | 3.271 | 0.000  | 2.144                         | 1.590       | -                       | -    |
| Emotional intelligence | .303                          | 0.059      | .338                            | 3.193 | 0.000  | .086                          | 1.020       | .62                     | 1.61 |
| Resilience             | .624                          | 0.210      | .468                            | 3.475 | 0.000  | .060                          | 1.478       | .55                     | 1.82 |
| Social Support         | .237                          | 0.230      | .261                            | 2.410 | 0.000  | .084                          | 1.081       | .68                     | 1.47 |

R = 0.571; R<sup>2</sup> = 0.326; Adj. R<sup>2</sup> = 0.325; F = 6.311, Sig-F = 0.000<sup>b</sup>

The multiple linear regression analysis indicated that the overall model was statistically significant (F = 6.311, p < 0.001), demonstrating a good fit to the data. The R<sup>2</sup> value of 0.326 suggests that approximately 33 per cent of the variance in cross-cultural adaptability is explained by the predictors. Furthermore, the adjusted R<sup>2</sup> of 0.325 indicates that the model maintains reasonable explanatory power. A detailed examination of the standardized coefficients revealed that resilience was the strongest predictor of cross-cultural adaptability among international postgraduate students ( $\beta = 0.468$ , p < 0.001). This was followed by emotional intelligence ( $\beta = 0.338$ , p < 0.001) and social support ( $\beta = 0.261$ , p < 0.001), both of which also contributed significantly to the model. Therefore, it can be concluded that the results of this study support HA1, HA2, and HA3.

Results of this study conform with Acculturation Theory in which cross-cultural adaptations involves internal psychological process (emotional intelligence and resilience) and interactions with external environment (social support). From an acculturation theory perspective, resilience refers to an individual’s capacity to adapt, recover, and maintain psychological well-being when confronted with cultural transitions and stressors associated with living in a new sociocultural environment. In the context of international postgraduate students, resilience is not merely the ability to “bounce back” from difficulties, but a dynamic process of ongoing adjustment that enables individuals to manage culture shock, language barriers, academic pressure, and social isolation while continuing to function effectively in the host culture (Vella & Pai, 2019).

A significant relationship between emotional intelligence and cross-cultural adaptability is both theoretically grounded and empirically supported in the literature on intercultural adjustment and acculturation. From an acculturation perspective, cross-cultural adaptation involves continuous psychological and sociocultural adjustment when individuals encounter unfamiliar norms, values, and interactional styles. Individuals with higher levels of emotional intelligence are better equipped to interpret emotional cues across cultures, manage uncertainty, and regulate stress associated with culture shock. This emotional competence enables them to respond more constructively to intercultural difficulties such as miscommunication, social exclusion, and academic pressure, thereby facilitating smoother adaptation. Empirically, studies consistently show that emotionally intelligent individuals demonstrate superior cross-cultural adjustment, particularly in emotional and social domains. For instance, Gebregergis, Huang, and Hong (2020) found that international students with higher emotional intelligence reported fewer adjustment difficulties when dealing with culturally diverse environments.

A significant relationship between social support and cross-cultural adaptability is well established in acculturation and intercultural adjustment literature, particularly in explaining how individuals cope with the psychological and social demands of living in a new cultural environment. Social support refers to emotional, informational, and instrumental assistance received from social networks such as peers, family, academic staff, and the host community. Within the framework of acculturation theory, social support functions as a critical external resource that facilitates both psychological well-being and sociocultural competence during cultural transition. Social support acts as a stress buffer by providing reassurance, guidance, and a sense of belonging, which reduces feelings of isolation, anxiety, and uncertainty. International students who perceive stronger social support networks are more likely to cope effectively with cultural challenges, maintain motivation, and demonstrate positive adjustment outcomes in the host environment (Hellfeldt, López-Romero, & Andershed, 2020).

## 5. Conclusions and Implications

This study examined the levels and relationships among emotional intelligence, resilience, social support, and cross-cultural adaptability among international postgraduate students at a selected research university in Malaysia. The findings indicate that the overall levels of emotional intelligence, resilience, social support, and cross-cultural adaptability were high, suggesting that the participants generally possessed strong internal and external resources to manage the demands of studying in a culturally different environment. More importantly, all three variables were found to have significant positive relationships with cross-cultural adaptability, confirming their critical roles in facilitating successful cultural adjustment.

Among the predictors, resilience emerged as the most dominant factor influencing cross-cultural adaptability, followed by emotional intelligence and social support. This pattern suggests that personal coping capacity and psychological strength are more influential than external resources in determining students' ability to function effectively in a new cultural context. While emotional intelligence contributes to adaptability through emotional regulation and interpersonal competence, social support plays a complementary role by providing emotional reassurance and practical assistance. Collectively, the findings reinforce Acculturation Theory, which posits that successful adaptation results from the interaction between individual psychological resources and environmental support systems.

The results extend Acculturation Theory by empirically demonstrating the combined influence of psychological traits and social resources on cross-cultural adaptability. The dominant role of resilience highlights the importance of viewing adaptation as a dynamic coping process rather than a purely cultural learning outcome. This study also strengthens the conceptual integration between resilience theory and emotional intelligence frameworks within the intercultural adjustment literature, suggesting that internal psychological capacities are central mechanisms underlying successful adaptation.

For higher education institutions, the findings underscore the need to prioritise psychological preparedness in addition to academic readiness for international students. Universities should consider integrating resilience-building programmes, emotional intelligence training, and coping skills workshops into student development initiatives, orientation programmes, and counselling services. Such interventions may include stress management training, emotional awareness exercises, and reflective practices to strengthen students' adaptive capacity.

Moreover, although social support was not the strongest predictor, its significant role indicates the necessity of maintaining a supportive campus environment. Institutions should strengthen peer mentoring systems, buddy programmes, intercultural activities, and academic advising services to promote social connectedness and reduce feelings of isolation among international students. Academic staff and administrative personnel should also be trained to adopt culturally responsive approaches in teaching and student support.

This study has several limitations that should be acknowledged. First, the sample composition shows an overrepresentation of Chinese nationals (56.77%) and a relatively smaller proportion of participants from other nationalities. While this distribution may reflect the accessibility of respondents within the study context, it may not fully represent the broader population of international students from more diverse cultural backgrounds. As such, the findings should be interpreted with caution, particularly when generalising to non-Chinese international student groups. Second, the gender distribution of the sample is skewed toward female respondents (76%), which may limit the generalisability of the results across gender groups. Differences in experiences, coping styles, and social support mechanisms between male and female students may potentially influence cross-cultural adaptability, but this study did not examine gender as a moderating variable.

Future research is encouraged to investigate whether the relationships among emotional intelligence, social support, resilience, and cross-cultural adaptability differ across gender and nationality groups. Next, considering GSAAS as a relatively new instrument that was originally validated within a mental health outpatient sample. Even though expert validation supports the suitability of the scale for the present sample, differences in population characteristics may still influence how respondents interpret and engage with the items. Therefore, caution is warranted when generalising the findings, and future research is encouraged to further examine the psychometric properties of the GSAAS across diverse non-clinical populations to strengthen its cross-context applicability.

Future studies are recommended to adopt longitudinal designs to examine changes in emotional intelligence, resilience, and social support across different stages of students' academic journeys. Such designs would provide deeper insights into how adaptability develops over time and how students respond to evolving academic and cultural demands. Further research should also explore potential mediating and moderating variables, such as coping strategies,

motivation, personality traits, cultural intelligence, or institutional support, to better understand the mechanisms through which resilience and emotional intelligence influence cross-cultural adaptability. Qualitative or mixed-method approaches are likewise encouraged to capture students' lived experiences and provide richer contextual understanding of their adaptation processes.

Additionally, comparative studies across multiple institutions or countries would be valuable in determining whether the dominance of resilience is culturally or contextually specific. This would enhance the generalisability of the findings and contribute to cross-national perspectives on international student adjustment. Finally, future research could evaluate the effectiveness of institutional interventions by examining the impact of resilience training, emotional intelligence workshops, and social integration programmes on international students' academic outcomes and psychological well-being. Such studies would provide evidence-based guidance for developing targeted support systems in higher education institutions.

### **Ethics Approval**

This study was reviewed and approved by the Universiti Putra Malaysia Ethics Committee (Approval No.: JKEUPM-2023-277). All procedures performed in this study involving human participants were conducted in accordance with the ethical standards of the institutional research committee and the 1964 Helsinki Declaration and its later amendments.

### **Data Availability**

The datasets generated and analysed during the current study are available from the corresponding author upon reasonable request. Data are not publicly available due to ethical restrictions and participant confidentiality agreements.

### **Declaration on the Use of Artificial Intelligence**

The authors declare that generative artificial intelligence tools were used solely for language editing and grammar checking purposes during the preparation of this manuscript. No artificial intelligence tools were used to generate research data, perform data analysis, or interpret results. The authors take full responsibility for the content of the manuscript.

## References

- Adams, D., & Velarde, J. M. (2021). Leadership in a culturally diverse environment: perspectives from international school leaders in Malaysia. *Asia Pacific Journal of Education*, 41(2), 323-335.
- Alsubaie, M. M., Stain, H. J., Webster, L. A. D., & Wadman, R. (2019). The role of sources of social support on depression and quality of life for university students. *International journal of adolescence and youth*, 24(4), 484-496.
- Altbach, P. G. (2007). Peripheries and centres: Research universities in developing countries. *Higher education management and policy*, 19(2), 111.
- Bender, M., van Osch, Y., Slegers, W., & Ye, M. (2019). Social support benefits psychological adjustment of international students: Evidence from a meta-analysis. *Journal of Cross-Cultural Psychology*, 50(7), 827-847.
- Berry, J. W. (2006). Acculturation: A conceptual overview. *Acculturation and parent-child relationships*, 13-32.
- Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review*, 46(1), 5-34.
- Bukhari, S. R., & Afzal, F. (2017). Perceived social support predicts psychological problems among university students. *The International Journal of Indian Psychology*, 4(2), 18-27.
- Chang, W. W., Yuan, Y. H., & Chuang, Y. T. (2013). The relationship between international experience and cross-cultural adaptability. *International Journal of Intercultural Relations*, 37(2), 268-273.
- Chandra, Y. (2021). Online education during COVID-19: perception of academic stress and emotional intelligence coping strategies among college students. *Asian education and development studies*, 10(2), 229-238.
- Chen, X. (2022). Cross-cultural competence and workplace adaptability in the perspective of globalization. *Journal of Sociology and Ethnology*, 4(9), 88-93.
- Chen, W., Xu, W., Shi, Q., & Liu, Z. (2025). Factors influencing cross-cultural adaptation and life satisfaction in multilingual contexts: the mediating role of cultural intelligence. *Journal of Multilingual and Multicultural Development*, 1-19.
- Chi, P., Li, X., Du, H., Tam, C. C., Zhao, J., & Zhao, G. (2016). Does stigmatization wear down resilience? A longitudinal study among children affected by parental HIV. *Personality and Individual Differences*, 96, 159-163. <https://doi.org/10.1016/j.paid.2016.03.001>
- Dafaalla, M., Farah, A., Bashir, S., Khalil, A., Abdulhamid, R., Mokhtar, M., ... & Abdalrahman, I. (2016). Depression, anxiety, and stress in Sudanese medical students: a cross sectional study on role of quality of life and social support. *Am J Educ Res*, 4(13), 937-942.
- Duanaeva, S., Berdibayeva, S., Garber, A., Baizhumanova, B., & Adilova, E. (2023). Cross-cultural study of resilience, stress, and coping behavior as prerequisites for the success of international students. *The Open Psychology Journal*, 16(1), 1-13.
- Ebrahimi, M., Yusoff, K., & Idris, A. (2025). Unity in diverse society of Malaysia. *Journal of Lifestyle and SDGs Review*, 5(1), e03493-e03493.
- Education Malaysia Global Services (2025). Student Data: International Student Data 2025. <https://educationmalaysia.gov.my/more/student-data/international-student-data>. Accessed on 27 November 2025
- Fletcher, D., & Sarkar, M. (2013). Psychological resilience. *European psychologist*.
- Franken, K., Schuffelen, P., Ten Klooster, P., van Doesum, K., Westerhof, G., & Bohlmeijer, E. (2023). Introduction of the generic sense of ability to adapt scale and validation in a sample of outpatient adults with mental health problems. *Frontiers in psychology*, 14, 985408.

- Gebregergis, W. T., Huang, F., & Hong, J. (2020). The impact of emotional intelligence on depression among international students studying in China: The mediating effect of acculturative stress. *International Journal of Intercultural Relations*, 79, 82-93.
- Gómez Molinero, R., Zayas García, A., Ruiz González, P., & Guil, R. (2018). Optimism and resilience among university students.
- Hellfeldt, K., López-Romero, L., & Andershed, H. (2020). Cyberbullying and psychological well-being in young adolescence: the potential protective mediation effects of social support from family, friends, and teachers. *International journal of environmental research and public health*, 17(1), 45.
- Hidalgo-Fuentes, S., Martínez-Álvarez, I., Sospedra-Baeza, M. J., Martí-Vilar, M., Merino-Soto, C., & Toledano-Toledano, F. (2024, March). Emotional intelligence and perceived social support: Its relationship with subjective well-being. In *Healthcare* (Vol. 12, No. 6, p. 634). MDPI.
- Higgins, K., & BuShell, S. (2018). The effects on the student-teacher relationship in a one-to-one technology classroom. *Education and Information Technologies*, 23(3), 1069-1089.
- Fletcher, D., & Sarkar, M. (2013). Psychological resilience: A review and critique of definitions, concepts, and theory. *European Psychologist*, 18(1), 12–23.
- Kant, R. (2019). Emotional intelligence: A study on university students. *Journal of Education and Learning (EduLearn)*, 13(4), 441–446. <https://doi.org/10.11591/edulearn.v13i4.13592>
- Kapur, S. (2015). Understanding the characteristics of an adult learner. *Jamia Journal of Education*, 2(1), 111-121.
- Kim, Y. (2017). Integrative communication theory of cross-cultural adaptation., 1-13. <https://doi.org/10.1002/9781118783665.ieicc0041>
- Kliem, S., Mößle, T., Rehbein, F., Hellmann, D. F., Zenger, M., & Brähler, E. (2015). A brief form of the Perceived Social Support Questionnaire (F-SozU) was developed, validated, and standardized. *Journal of clinical epidemiology*, 68(5), 551-562.
- Mallak, L. A., & Yildiz, M. (2016). Developing a workplace resilience instrument. *Work*, 54(2), 241-253.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American psychologist*, 56(3), 227.
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). McGraw-Hill Education.
- Petrides, K. V. (2009). Psychometric properties of the trait emotional intelligence questionnaire (TEIQue). In *Assessing emotional intelligence: Theory, research, and applications* (pp. 85-101). Boston, MA: Springer US.
- Pooley, J. A., & Cohen, L. (2010). Resilience: A definition in context. *Australian Community Psychologist*, 22(1), 30-37.
- Radhamani, K., & Kalaivani, D. (2021). Academic resilience among students: A review of literature. *International Journal of Research and Review*, 8(6), 360-369.
- Sam, R., Jamil, H. B., & Md Zain, A. N. (2024). Academic Adjustment Issues in a Malaysian Research University: The Case of Cambodian, Laotian, Burmese, and Vietnamese Postgraduate Students' Experiences. *Laotian, Burmese, and Vietnamese Postgraduate Students' Experiences (June 01, 2024)*.
- San, C. K., & Guo, H. (2023). Institutional support, social support, and academic performance: Mediating role of academic adaptation. *European Journal of Psychology of Education*, 38(4), 1659-1675.
- Setti, I., Sommovigo, V., & Argentero, P. (2022). Enhancing expatriates' assignments success: the relationships between cultural intelligence, cross-cultural adaptation and performance. *Current Psychology*, 41(7), 4291-4311.

- Sharma, R., & Kumar, P. (2016). Emotional intelligence and stress coping styles: A study of doctors of private hospitals in and around Chandigarh. *International Journal of Management & Social Sciences*, 3(3). <https://doi.org/10.21013/jmss.v3.n3.p24>
- Shuo, Z., Xuyang, D., Xin, Z., Xuebin, C., & Jie, H. (2022). The relationship between postgraduates' emotional intelligence and well-being: the chain mediating effect of social support and psychological resilience. *Frontiers in psychology*, 13, 865025.
- Singh, J. K. N., & Jack, G. (2018). The benefits of overseas study for international postgraduate students in Malaysia. *Higher Education*, 75(4), 607-624.
- Sundaramoorthy, J., Eapen, J. C., Geddam, S., Deepthi, D. P., Pandey, V., Eslavath, R., Yadav, R., & Govindappa, L. (2025). Emotional Intelligence and Cross-Cultural Adaptation of Indian Students in the Context of Interstate Education. *International Journal of Interdisciplinary Cultural Studies*, 20(1), 1-15.
- Vella, S. L. C., & Pai, N. B. (2019). A theoretical review of psychological resilience: Defining resilience and resilience research over the decades. *Archives of Medicine and Health Sciences*, 7(2), 233-239.
- Wagnild, G. M., & Young, H. M. (1993). Development and psychometric. *Journal of nursing measurement*, 1(2), 165-17847.
- Ward, C., & Fischer, R. (2008). Personality, cultural intelligence and cross-cultural adaptation. *Handbook of cultural intelligence: Theory, measurement, and applications*, 159- 173.
- Young, T. J., & Schartner, A. (2014). The effects of cross-cultural communication education on international students' adjustment and adaptation. *Journal of multilingual and multicultural development*, 35(6), 547-562.
- Zawawi, T. S. T. M., Zain, A. D. M., Embong, R., & Alwi, E. A. Z. E. (2022). The Existence Of Religious Tolerance In The Multi-Racial Society of Malaysia. *Journal of Positive School Psychology* <http://journalppw.com>, 6(3), 1976-1982.
- Zhai, X., & Razali, A. B. (2022). International Chinese postgraduate students' adaptation strategies for oral English communication practices in Malaysian higher education institutions. *Education Research International*, 2022(1), 1-11..
- Zhou, Z., & Xiang, J. (2025). The relationship between physical activity and mental toughness among Chinese university students: the chain-mediated role of self-esteem and social support. *Frontiers in Psychology*, 16, 1592192.

## Appendix A: List of Instruments Used

### **Emotional Intelligence (1- Completely strongly disagree, 2- Strongly disagree, 3- Disagree, 4- Neutral, 5- Agree, 6- Strongly agree, 7- Completely strongly agree)**

1. Expressing my emotions with words is not a problem for me.
2. I often find it difficult to see things from another person's viewpoint. (-)
3. On the whole, I'm a highly motivated person.
4. I usually find it difficult to regulate my emotions. (-)
5. I generally don't find life enjoyable. (-)
6. I can deal effectively with Malaysian people.
7. I tend to change my mind frequently. (-)
8. Generally, I find it difficult to know exactly what emotion I'm feeling. (-)
9. On the whole, I'm comfortable with the way I look.
10. I often find it difficult to stand up for my rights. (-)
11. I'm usually able to influence the way other people feel.
12. On the whole, I have a gloomy perspective on most things. (-)
13. Those close to me often complain that I don't treat them right. (-)
14. I often find it difficult to adjust my life according to the circumstances. (-)
15. On the whole, I'm able to deal with stress.
16. I often find it difficult to show my affection to those close to me. (-)
17. I'm normally able to "get into someone's shoes" and experience their emotions.
18. I normally find it difficult to keep myself motivated. (-)
19. I'm usually able to find ways to control my emotions when I want to.
20. On the whole, I'm pleased with my life.
21. I would describe myself as a good negotiator.
22. I tend to get involved in things I later wish I could get out of. (-)
23. I'm generally aware of my emotions as I experience them.
24. Given my circumstances, I feel good about myself.
25. I tend to "back down" even if I know I'm right. (-)
26. I don't seem to have any power at all over other people's feelings. (-)
27. I generally believe that things will work out fine in my life.
28. I find it difficult to bond well even with those close to me. (-)
29. Generally, I'm able to adapt to new environments.
30. Others admire me for being relaxed.

### **Resilience (1- Strongly Disagree, 2- Disagree, 3- Neutral, 4- Agree, 5- Strongly Agree)**

1. Although I may not like some of the tasks given to me at university, I would make sure that I do it.
2. I can usually find something to laugh about at university.
3. I can handle many tasks at one time.
4. I can cope with task difficulties by myself.
5. My self-efficacy gets me through hard times in dealing with problems in university.
6. I can do many tasks on my own.
7. I do not have to rely much on my friends at university.
8. I can get through hard times in doing certain tasks by myself.
9. I keep being interested in my course.

10. I take things one day at a time.
11. I have enough energy to do my task efficiently.
12. I try not to overthink about my task load.
13. I try to be creative in solving problems.
14. I make sure I complete important tasks.
15. I usually manage one to do my tasks one way or the other.
16. I feel satisfied when I do my task well.
17. In an emergency at school, I am someone my friends can rely.
18. When I make plans, I follow through them.
19. I am a determined student.
20. My university life has meaning.
21. I do not dwell on things that I cannot do anything about.
22. When I'm in a difficult situation, I still can focus on my task.

**Social Support (1- Does not apply, 2- Slightly applicable, 3- Moderately applicable, 4- Highly applicable, 5- Exactly applicable)**

1. I can easily find someone in Malaysia who can look after my home when I'm not there.
2. There are people in Malaysia who accept me the way I am without reservations.
3. I receive a lot of understanding and security from others.
4. There is someone very close to me whose help I can always count on.
5. If I need to, I can borrow something from Malaysian friends or neighbours without any problems.
6. I have friends/relatives who will definitely take time to listen if I need someone to talk to.
7. I know several people with whom I like to do things in Malaysia.
8. I have friends/relatives who sometimes simply give me a hug.
9. When I am sick, I can ask friends/relatives to handle important things for me without hesitation.
10. If I'm very depressed, I know who I can turn to.
11. There are people who share both joy and sorrow with me.
12. I have some friends/ relatives with whom I can be quite playful.
13. There is someone close to me in whose presence I feel comfortable without any reservations.
14. There is a group of people (friends, clique) that I belong to and whom I meet often in Malaysia

**Cross-cultural Adaptability (1- Strongly Disagree, 2- Disagree, 3- Neutral, 4- Agree, 5- Strongly Agree)**

1. I can cope well with adverse circumstances.
2. I feel energetic.
3. I see plenty of interesting challenges.
4. I can cope well with the stress in my life.
5. I have influence over my personal circumstances.
6. I can easily handle setbacks.
7. If something unexpected happens, I can easily adapt.
8. I can cope well with my daily life in Malaysia.

9. If I encounter difficulties, I can find a way out.
10. If I want something, I go for it.