CULTURAL ADAPTATION, SOCIAL INTEGRATION AND ACADEMIC PERFORMANCE: A STUDY OF INTERNATIONAL STUDENTS

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ABSTRACT

Since the beginning of the twenty-first century, international student pursuing higher education has grown rapidly. However, while pursuing higher education these students often confronted with certain challenges in adaptation of host country culture, which may affect their academic performance. Grounded on acculturation theory, this study aims to investigate culture adaptation and its role in academic performance through social integration in higher education institutions (HEI). The data has been collected from a sample of 480 international students studying HEI across United Kingdom using convenience and snowball sampling. Multiple regression using Hayes process macro is applied on hypothesize model. The results revealed that students with high degree of culture adaptation significantly outperform in their academic endeavor. Further, findings show that social integration act as mediating mechanism in transforming culture adaptation to greater academic performance. The findings provide valuable insights for educators and higher education institution to foster social and academic integration for improving culture adoptability and academic performance of international students.

Key Words: Culture adaptation, social integration, academic performance, international students, higher education

1. INTRODUCTION

Background and Introduction

Since the beginning of the twenty-first century, international student pursuing higher education has grown rapidly. With scholarships, study incentives, and improved infrastructure for education, countries and colleges are trying their best to attract overseas students. Because, the presence of international students at a university are considered significant element in the internationalization of higher education (Latipov et al., 2017). Globally, from the year 2000, the number of students seeking higher education abroad has more than quadrupled to about four million students in 2012 (OECD, 2013). Further, it is estimated that by year 2025 the number of students seeking international higher education might surpass seven million (Foresight for Development, 2002). However, despite an increase in international students, these students are always confronted with certain challenges in adaptation of host country culture during their higher educations (Alasmari, 2023). The issue lies in the fact that such students get exposed to different cultural standards, educational patterns, and social interaction, which can create challenges for them to adapt both in academic and social context.

This process of adjusting is what is referred to as the cultural adaptation, not as a shift from one cultural environment to another, but as an internal change that happens to students as they have to adapt between home culture and the academic culture. Cultural adaptation is deemed to be a significant determinant of academic achievements because it impacts on the manner in which students engage with their learning milieu (Cena, Burns and Wilson, 2021). Literature demonstrates that international students who have problems with cultural adjustment are at higher risk of experiencing academic problems, dissatisfaction with the educational process, and

even increased rates of dropout (Dorozhkin and Mazitova, 2008; Smith & Khawaja, 2019). On the other hand, the successful students are likely to perform well academically, build interpersonal relationships, and get involved in their studies. Hence, the relationship between cultural adaptation and academic performance becomes an important area of study especially for the international HEI as it will help in the creation of support systems and policies for the international students.

Due to cultural adjustment issues, students may perform poorly, experience stress, and isolate themselves, which might influence their education (Baghoori et al., 2022). Further, the importance of understanding the correlation between culture and achievement is based on the growing internationalization of higher education. With increasing numbers of students from across the globe choosing universities across the globe, the academic success of international students is something that has become a focus. Therefore, the present study focuses on the effects of cultural adaptation on academic achievement among the foreign students in tertiary institutions. The premise for this research stems from the context that culture has an influence on academic performance and it is important to determine the causes as well the ways to prevent adverse effects. Although, previous studies have looked at the general difficulties that international students encounter, little has been done to systematically examine the relationship between cultural adaptation and academic performance with regard to the possible mediators in this relationship. To this end, it is expected that the present study will offer useful information that will assist universities in their support for the international students.

The study proposes social integration as a mediator that may underpin the relationship between cultural adaptation and educational achievement. Social integration can be defined as students' feelings of being accepted and belonging from their same-culture peer group and the school community (Tinto, 1993; Mustaffa and Ilia, 2013). It is an essential step in acculturation. According to the social integration hypothesis, students who successfully integrated into an institutional social structure will translate into academic achievement due to social support,

learning opportunities and a sense of belonging (Hendrickson, Rosen, and Kelly Aune, 2011). The feeling of belonging thus reduces anxiety and increases academic engagement. Social integration as a crucial part in the relationship between cultural adaptation and educational achievement implies that interventions focusing on establishing social ties among international students may enhance their educational achievement. The theoretical basis of this study was based on the acculturation hypothesis of Berry (1997), that is, acculturation refers to the process of adapting oneself to a new culture, involving two major components: acquisition of cultural knowledge and psychological adjustment (Greenland, and Brown, 2005). The acculturation hypothesis proposes that cultural adaptation influences educational achievement by shaping students' social integration and well-being.

The contribution of this study to the existing body of literature is that it present empirical findings on cultural adaptation and academic performance of international students with a focus on the mediating role of social integration. This study is most beneficial to the global universities as it will help in formulating and implementing policies and strategies that will foster success of international students. Thus, providing practical implications for enhancing support structures for international students, the study contributes to the enhancement of academic environment for international students by underlining cultural adaptation as a key concept and identifying social integration as one of the key mechanisms in the process.

2. Literature Review and Hypotheses Development
2.1 Culture Adaptation

Cultural adaptation, also called acculturation, is the process by which people get used to a new society by adopting its behaviors, beliefs, norms, and habits (Berry, 2019). For overseas students negotiating the complexity of life and studies abroad, this adaptation process is essential. Berry's (2019) acculturation theory defines cultural adaptation as both psychological and educational process whereby people must strike a balance between preserving their cultural identity and assimilating into the new society. For foreign students, this process can be difficult as they have

to not only fit the social and cultural standards of the host nation but also change with the academic expectations and system, which could differ greatly from those in their own nations. While challenges in adapting can cause stress, social isolation, and academic underachievement, research by Smith and Khawaja (2019) shows that successful cultural adaptation among international students is linked to better academic performance, higher degrees of satisfaction, and general well-being.

2.2 Challenges of Culture Adaptations
The extant literature demonstrate that international students encounter several challenges in adopting to the host country culture abroad. These challenges include language barriers, lifestyle and religious challenges and social and friendship challenges (Rivas, Hale and Burke, 2019). These challenges are broadly classified into culture challenges and personal challenges as depicted in Figure 1.
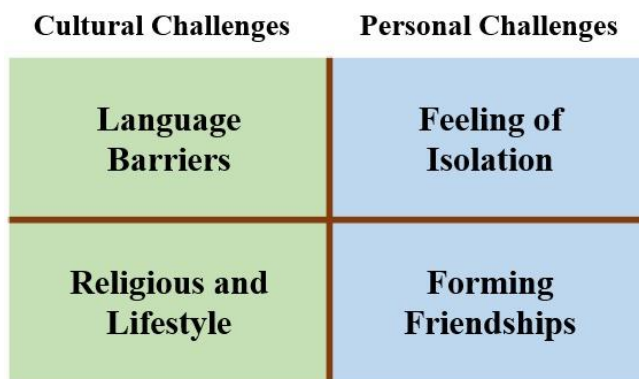
Figure 1: Culture adaptation challenges
Source: Author

2.2.1 Culture Challenges
When international students initially come in the host nation and encounter to the customs, language, practices, and presumptions of the host society, one begins to notice cultural disparities (Fedotova, 2021). International students strive to embrace the new culture throughout the process of acculturation in order to meet their daily requirements and intercultural living in their new environment, which might lead to acculturative stress (Kim et al., 2019). Almutairi (2020) conducted interviews with sixteen international students attending a Saudi Arabian institution to discover that eleven of them had experienced cultural shock—that is, anxiety resulting from not understanding what to do in a new society—in their process of adjusting.

Language Barriers
Language is one of the biggest barriers that international students experience in their education process (Mancini-Cross et al., 2009). Language barrier is a major challenge that hinders students from grasping and speaking the language of the host country thus posing some challenges in learning and interacting in social activities. Students may not understand what instructors are saying in class, thus they have difficulty in contributing to the group discussions, submitting their works and interacting with fellow students; this can lead to frustration and poor academic performance as identified by Aksoy, Uzunoğlu and Akyar (2017).

Religious and Lifestyle Challenges
Religious practices and changes in lifestyle are other difficulties that international students experience. Cultural transitions entail changing from one culture to the other, which may entail issues to do with religion, diet and other cultural practices (Baklashova, and Kazakov, 2016). For example, they may fail to get a church, mosque, temple or synagogues to attend or their ability to get certain types of foods that they need to take for health reasons. Moreover, international students may also experience differences in lifestyle in host country compared to home country. Lifestyle differences includes standard

of living, norms and culture and value and belief that may leads to stress and loneliness, and consequently influencing students' performance (Zhou et al., 2018).

2.2.2 Personal Challenges
Personal challenges to culture adaptation are linked to individual psychological and emotional issues encountered during studying abroad. These are basically are not related to culture barriers, but are rooted deep into students' academic background and experience in HEI abroad. Feeling of isolation and forming friendship in host country universities are the most common personal challenges (Alshammari et al., 2023).

Feelings of Isolation
Feeling of loneliness is the most common obstacles an international student facing during studies. As per Zhao and Schartner (2023) as the students enters to host country, they suffer from culture shocks. With culture differences and not adopting to host country culture students feels isolated in the university. Long-distance relationship with family and friends results in homesickness. These factors effect student performance and often fail to meets academic demands due to low level of supports and lack of friendship. These factors lead to feeling of isolation; which not only effect psychological well-being but also hinders culture adoptability and hence effect their academic (Alshammari et al., 2023).

Farming Friendships
Friendship augment individual lives, and offers both practical and emotional support particularly during time of crises (Lu, Oh, Leahy and Chopik 2021). Consequently, friendship significantly link to emotional and physical well-being of individual and help in promoting a happier life. However, in the context of culture adaptation in HEI abroad, international students due to newness and culture differences often faces issues in forming friendship. Rivas et al. (2019) documented language, values and norms differences and other social expectations as the main challenges internal students encounter during friendship formation. These challenges hinder student's ability to interact with peers and teachers which results in isolation and low level

of friendship. The challenge of creating a social network can worsen social isolation and decrease the support required for the successful adaptation and achievement (Smith & Khawaja, 2019).

2.3 Hypotheses Development
2.3.1 Culture adaptation and academic performance
International students mostly trying to adopt to host country culture, but might perceive themselves invisible in their early classes (San Diego 2017). Because, literature demonstrates the significance of culture adoptability of international students to host university culture and academic environment. Misra and Castillo (2004) relate culture adaptation to lower level of stress and loneliness, and greater level of satisfactions. The international students' adaptation to the new culture is explained; as the acceptance of cultural differences, levelling a psychological barrier between the students' home culture with that of culture of the host country (Vershinina & Kocheva 2015).

The extant literature documents that culture adaptation of international students drive student performance in several manners. First, successful students with culture adaptation are most likely to perform well academically, since they are highly motivated in classroom environment, involve in academic as well extra curriculum activities and have great potential to utilize available resources effectively (Smith & Khawaja, 2019). These factors influence student's well-being which in turn results in greater academic performance. Moreover, Kim and Kim (2020) indicates that international students with high degree of culture adoptability and competencies including language proficiency, social and academic integration have greater potential to excel academically. Based on these arguments, this study hypothesizes that:

H_1: Culture adaptation has a significant and direct influence on academic performance of international students.

2.3.2 Social Integration as Mediator
This study opted social integration as mediating variable in the link between culture adaptation and academic performance. Social integration refers to tendency of international students to form strong relationship with their classmates and

participate other social gathering provided by the host university. This behavior has a strong influence of overseas attitude towards host country culture and helps in orientation of culture norms and values. Students In this regard, Zhang and Goodson (2021) concludes that with high propensity of social integration are most likely to adopt to host country culture, which leads to better classrooms participation and academic success. Because, social integration enables students to actively participate in classroom discussion, acquire support from their peers and helps in timely submission of assignment, which translate into better grades and performance.

In addition, recent research has substantiated the mediatory role of social integration. Liu and Liu (2022), for example, discovered that social integration not merely helps to reduce the negative consequences of cultural stress but also promotes a sense of belonging that is important for academic achievement. Comparably, results from Williams and Johnson (2023) show that overseas students whose feel fully integrated within their educational and social surroundings report greater degrees of academic fulfillment and achievement. The present study proposes that social integration might improve general academic achievement by buffering the difficulties of cultural adaptation. Based on these arguments the following hypothesis is proposed:

H$_2$: Social integration significantly mediate the relationship between culture adaptation and academic performance of international students.
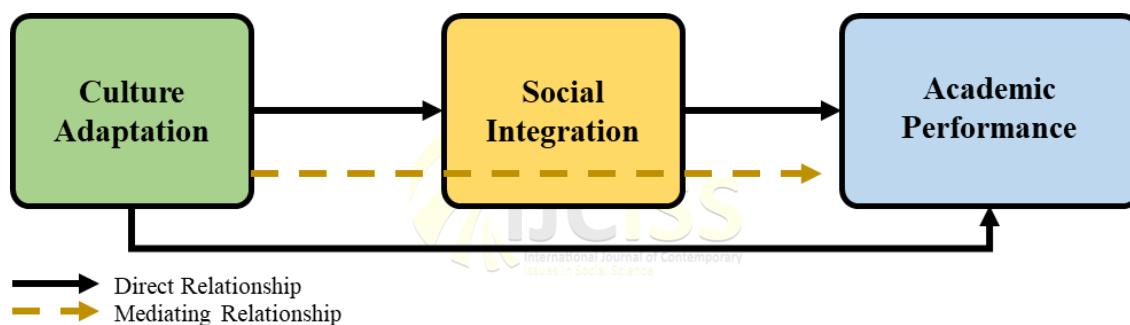
2.4 Theoretical Framework

Figure 2: Theoretical Framework
Source: Author

3. Methods

3.1 Population and Sample

Target population is consisting of international students studying in various universities across United Kingdom. UK universities is considered as unit of analysis, because it is considered the most attractive destination for international students pursing higher education. Further, these universities also attract students from diverse culture background from all over the world, allows for an in-depth analysis and understanding of culture adaptation and student academic performance. For this study, a sample size of 500 respondents has been chosen from UK universities. This sample size is enough for accurate and reliable results with greater generalizability.

3.2 Data Collection Procedure

The data for the study was collected through an adopted survey questionnaire. The questionnaire was distributed online among the sample respondents using the combination of convenience and snowball sampling technique is applied. Convenience sampling will be used at first to identify students that are easily reachable and willing to participate in the study such as those who are attending international students' events or those who are members of the International Students' Association. To increase the sample size, snowball sampling with combination of the above methods of sample selection. In this technique, the first batch of participants will be requested to forward other international students who qualify for the study.

3.3 Instrumentation

The survey questionnaire is consisting of two sections. In the first the respondents were asked about their demographic characteristics such as age, gender, education and region. The second section of the survey consist of questions related to the study variables such as culture adaptation, social integration and academic performance. Culture adaptation scale was measured with 11 items divided into three dimensions such general adjustment, interaction adjustment, and work adjustment. These items were adopted from the study of Black (1988). These items were measured with 7-point Likert scale ranging from 1 for "not adjusted at all" to 7 for "very well adjusted". Social integration scale was measured with eight item scale adopted from Wilcox, Winn, and Fyvie-Gauld (2005). These items were measured with 7-point Likert scale ranging from 1 for "strongly disagree" to 7 for "strongly agree". Further, academic performance of the students was measured with Grade Point average (GPA). GPA has been considered the most common method for measuring student academic performance in the literature (Richardson, Abraham, & Bond, 2012). The students were asked to report most GPA.

3.4 Data Analysis Methods

Data analysis has been conducted in two steps. In the first step frequency and descriptive statistics of demographic and study variables has been conducted to explain the nature and characteristics of the data sets. In the second step normality analysis followed by hypotheses testing has been conducted. Normality analysis has been conducted using skewness and Kurtosis. Further, Harman single factors analysis has been conducted for determining common method bias. In the last, regression analysis using Process Macro has been conducted for testing and validating hypotheses of the study. All the analysis has been conducted using SPSS 25.

4. Results

4.1 Demographic Characteristics

Table 1 depicts the demographic characteristic of study respondents. The statistics shows that majority of respondents are male with percentage of 71.9 percent. Statistic also shows that most of the respondents are within the age bracket of 25-30 and maximum percentage of master level students. Further, statistics also show Asian students have a high proportion in UK universities followed by African students.

Table1: Demographic Characteristics of Respondents

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	345	71.9
	Female	135	28.1
Age Groups	18-24	157	32.7
	25-30	203	42.3
	31-35	79	16.5
	Above 35	41	8.5
Education Level	Graduation	159	33.1
	Master	242	50.4
	Doctorate	79	16.5
Region	Asia	214	44.6
	Africa	95	19.8
	Europe	80	16.7
	Australia	40	8.3
	America	51	10.6

4.2 Descriptive Statistics

Table 2 shows descriptive statistic of the study variables that is culture adaptation, social integration and academic performance. The table shows that culture adaptation has a mean value of 5.5, suggesting that international students in UK have a propensity toward culture adaptation. This could be link to high level of social integration in

form of supportive environment and peer's acceptance in universities.

Table 2: Descriptive Statistics for Variables

Variable	Minimum	Maximum	Mean	Standard Deviation
Culture Adaptation	2.8	6.6	5.5	1.1
Social Integration	3.2	6.9	4.5	0.9
GPA	2.4	4.0	3.2	0.4

4.3 Normality Analysis
Normality analysis has been conducted using skewness and Kurtosis. The analysis revealed that all the data is normally distributed. Further, The Kolmogorov–Smirnov values (K-S = 0.084; p value = 0.234), also suggest that sample data does not deviate from normal distribution.

4.4 Regression Analysis and Hypotheses Testing
Table 3 shows regression analysis showing beta coefficient, t statistic, p value and confidence interval. According to statistic culture adaptation has a significant and direct effect on academic

performance (β = 0.423; p value = 0.000). This suggest that international students in UK have higher degree of culture adaptation, which has significantly influenced their academic performance. Further, culture adaptation has also a significant and positive effect on social integration (β = 0.384 = p value = 0.013); suggesting that culture adaption and social integration both are correlated. Regarding the mediating role of social integration, the results shows (β = 0.272; p value = 0.014); indicating that social integration has a significant mediating role between culture adaptation and academic performance.

Table 3: Regression Analysis

Path	Beta (β)	t-statistics	p-value	Lower CI	Upper CI
Culture Adaptation → GPA	0.423	5.89	0.000	0.282	0.560
Culture Adaptation → Social Integration	0.384	2.517	0.013	0.321	0.613
Culture Adaptation → Social Integration → GPA (Indirect Effect)	0.272	2.582	0.014	0.174	0.375

Note: ** indicate significance at 1 percent and * significance at 5 percent

5. Discussion and Conclusion
According to the results of the present research, cultural adaptation has a strong influence on the academic achievement of international students through social integration. The direct positive relationship between cultural adaptation and academic performance as well as the mediated effect of social integration is in accordance with the previous research studies done on adjustment of the international students.

The findings are in support with the work of Rienties et al. (2012) who argued for the role of social integration in improving academic performance of international students. They opined that students with better social integration chances to the social network of the receiving

institution enhance their academic performance. This is well supported by our study because we found out that social integration fully mediates the relationship between cultural adaptation and academic performance, meaning that culturally adapted students are better placed to integrate socially hence have better grades.

In the same way, the study is relevant to the study by Kim et al. (2019) with international students in the US. In a study by Kim et al, it was discovered that cultural adaptation played a significant role in the success of the students and was enhanced by the social relations support acquired in the university. This study supports this assumption that higher academic performance is obtained by students who enhance their cultural adaptation

skills and social relationships within the university environment.

Zhao (2023) examined the academic, sociocultural and psychological adjustment of international students at a British university and revealed multidimensional pattern of adjustment that were moderated by cultural distance, language fluency, and institutional support. In this regard, our study agrees with Zhao's by pointing out that social integration mediates the relationship between cultural adaptation and academic achievement. Zhao pointed out several barriers to adjustment, and these include culture, language, and language barriers, all of which have been seen in students in our study.

5.2 Implications of the study

The findings provide significant implications for universities and educators considering to improve academic performance of international students. The study suggests that institutions should pay more attention to cultural assimilation and social acculturation, and as such, should offer programmed in these areas. This includes dissemination of culturally appropriate orientation programs, language support services and social interaction through peer mentoring and student associations. In addition, there are other impacts of multicultural education on practice teaching where the teacher is in a position to adopt culturally sensitive practice. They also ensure student success and foster a friendly environment for all students and faculty which is beneficial to the overall academic community.

Contributing to extant literature, the present research is to expand the knowledge of the influence of cultural adaptation for students' academic results through the description of the processes influencing the latter. The large mediation effect that was obtained for social integration implies the need to improve the social context of the higher education institutions in order to improve the performance of the international students. It is therefore recommended that universities should provide certain extra services/amenities that will enhance the culture acclimatization and social inclusion of the international students in order to enhance their experience in host country.

5.3 Limitations and Future Research Directions

Although this study has several contributions to existing body knowledge, the study also has some limitations. First cross-sectional and mano method research design limit the study to explore an in-depth linkage between study variables. Second, sample size of the study limit to international students of HEIs in UK; which limit the generalizability of the study to other regions. Future research is recommended to study the same construct over longitudinal research design covering sample size from diverse regions. Further, it is also recommended to integrate other mediating variables such as language support programs and culture orientation program which could enhance worth of study findings.

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