

‘When in Rome, do as the Romans do’ Do international students’ acculturation attitudes impact their ethical academic conduct?

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Abstract International students undertaking higher education in foreign countries bring with them some perceived beliefs about academic conduct. These beliefs are often in contrast with the host countries’ academic practices, which may generate confusion and frustration among international students, affecting their learning behaviours. As a consequence of intercultural interactions in a foreign country, international students’ beliefs and behaviours may change. Since Malaysia has emerged to be a hub of educational excellence in the region by transforming its higher education, thereby attracting increasing number of international students, this paper aims to investigate whether international students’ acculturation-oriented attitudes impact their ethical academic conduct pertaining to research, exams and assignments in a public university in Malaysia. The results reveal that students adjusting to the local academic norms demonstrate significant positive commitments to host country’s academic norms concerning research, exam and assignments. However, students upholding the norms of their home countries tend to show non-significant attitudes towards host country’s academic norms. These findings have strategic

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policy implications for the host educational institutions that are highlighted in the paper. The paper also identifies its limitations and explores future research potential.

Keywords Acculturation · Adjustment attitude · Attachment attitude · Academic conduct · International students · Malaysia

Introduction

Issues surrounding ethical academic practices have been generating considerable research interest at the global level for decades. While the integrity of both academics and students has come under the spotlight, academic behaviours of students have drawn greater research attention in recent years. This may be partly attributed to the increase in internationalization of higher education, whereby many students move to foreign countries for getting better quality education at foreign educational institutions. This positive perception of international students about higher educational standard in foreign institutions seems to have caused exodus of numerous students to foreign countries. Thus, mobility of international students has become a critical issue in the realm of global higher education in recent times (Verbik and Lasanowski 2007). As globalization in higher education provides a prevalent market for the countries concerned, there has been an increasing interest in education services not only in developed countries but also in the transitional economies in Asia (Arokiasamy 2010). According to a report by Phil Baty, the editor of ‘Times Higher Education Ranking, 2014’, the share of Asian countries (i.e. China, Malaysia, India, Japan, Singapore, South Korea and Taiwan) in the global educational markets has witnessed significant increase from 25 to 34 %, while the share for the USA and European Union has dropped from 37 to 30 and from 26 to 22 %, respectively (Thomson Reuters 2014). This trend might be explained by the fact that the quality of education provided by the above Asian countries has gone up significantly in recent times because of the increased pace of economic growth that these countries have been witnessing in recent decades. Malaysia in particular has witnessed a re-structuring of its higher education sector in terms of providing autonomy to a number of public universities and welcoming the establishment of universities in the private sectors (Lee 2004) as well as corporatization of universities (Universiti Sains Malaysia 1998). Because of allocating 15.5 % of the total annual for the development of education (Bray 2002), higher education sector in Malaysia has witnessed exponential growth resulting in excellence of quality of higher education. This might have been instrumental in attracting quality education seeking foreign students to the Malaysian higher education sector. According to statistics in 2011, the number of international students enrolled in Malaysian educational institutions was 111,939 which showed a considerable increase from 80,750 in 2009 (Cheng et al. 2013).

The socio-cultural and economic benefits that international students would bring to the host countries have become the main excitors for the new players in the market to move towards internationalization of higher education (Terry 2011). This has led to an immense increase in the internationalization of higher education in Asian countries compared to other regions of the world and has made them internationally competitive in the market (Wilkins 2014). Malaysia is one of these countries which has emerged to be a potential education hub in the region through opening its doors to international students (Verbik and Lasanowski 2007). Following the decision made by Malaysian Ministry of Higher

Education to transform its higher education (Ministry of Higher Education Malaysia 2007) has been instrumental in the considerable increase in the presence of international students in Malaysian universities (Verbik and Lasanowski 2007). This has been achieved through offering world-class education at an affordable cost and lower living costs compared to the USA, the UK, Australia and European countries. Furthermore, improving the infrastructure and introduction of English as the medium of instruction at the institutions of higher education in Malaysia have also contributed to the growing international student population in the country (Mahmud et al. 2010). It is also worth noting in this connection that Malaysia has been ranked by the UNESCO as the 11th country in the world, holding 2.5 % share of global international student market (Ministry of Higher Education Malaysia 2009).

Apart from the benefits that education internationalization could bring about for the host countries, relocating to a foreign country with the aim of studying is the potential cause of acculturative stress, challenges and adjustment difficulties for international students (Berry 2006). Moreover, studying in a different environment becomes challenging for students in terms of understanding and coping with the local academic systems of an unknown country (Sumer 2009). Students may undergo some degree of personal change or acculturation. According to Berry (2005), acculturation refers to the psychological and cultural changes which happen to individuals due to intercultural contact with the members of two or more cultural groups.

Towards understanding the factors contributing to individuals' acculturation, various acculturation models were developed in the literature to portray challenges of individuals in the process of adjustment to a new culture (Smith and Khawaja 2011). Among the proposed and empirically tested models, Berry's (1997) acculturation model is employed in this study because it emphasizes on individuals' acculturation attitudes and its pivotal role in facilitating adjustment of individuals to a new environment. The uni-dimensional model mainly defines acculturation as the process of discarding one's original culture and assimilating or adapting to the host country's culture (Schwartz et al. 2010). However, Berry (1997) developed a bi-dimensional model to focus not only on migrants but also on host groups acculturation attitude based on their adjustment and attachment attitude.

In an era of increasing globalization of higher education, international students' acculturation is emerging as an important issue. The literature suggests that international students cope in three ways with their studies in another country. One group often experiences frustration, as they are deeply rooted in their own cultural norms and tend to follow their home country rules and behaviours rather than those of their host country (Yang and Clum 1994). A second group of students are more willing to accept and work within a new culture and, accordingly, adjust their behaviour to survive in a culture peculiar to them. Yet, another group of students have the tendency towards maintaining their original country culture and, at the same time, trying to assimilate to the host country's cultural norms (Van Oudenhoven 2006). These students are likely to demonstrate mixed norms and values because of the combined effects of the two cultures on their behavioural postures.

Against the above backdrop, this paper explores international students' attitudes towards acculturation and the impact of these attitudes on students' academic practices. The paper is set out as follows: the literature on acculturation of international students is reviewed and the gap in knowledge is identified. A research model with hypotheses is derived, and the method is elaborated in the context for the study. Findings are presented and discussed; implications for theory and practice are advanced, as is an agenda for further research.

Literature review

Culture is a crucial determinant in shaping people's intentions and ethical behaviours (Armstrong and Sweeney 1994; Hofstede 2001; Swaidan et al. 2006) as well as individuals' behaviours, intentions and identities (Song and Shin 2004). It follows that acculturation is the change experienced through contact with another culture, which might have an impact on a person's ethical and unethical behaviours (Swaidan et al. 2006). Individuals in a new cultural environment face a critical decision as to how to behave in a new host culture. The crucial issue is whether to (1) keep their original identity and behave in accordance with their original cultural values (attachment) or (2) to adapt to the host mainstream culture and behave in line with the host cultural value system (adjustment). Individuals' tendencies towards either the attachment or the adjustment orientations form their identification with the respective culture (Berry 1998). The more an individual is inclined towards adopting the new environment, the more they would align their attitudes, behaviours and values in line with the host culture. In contrast, if they prefer to choose maintaining their orientation to home country culture, they would continue behaving in accordance with their original cultural norms and values. However, if they have the tendency towards maintaining the original cultural norm and at the same time adopting the new cultural norms, they would likely to be more flexible and integrate both with cultural norms and values in their behaviour. Lastly, if they choose the option of neither maintaining nor adopting, they would fail in their acculturation process (Berry 1997).

With its focus on understanding individuals' intergroup behaviour (Tajfel and Turner 1986), social identity theory helps explain the phenomenon of acculturation. Social identity theory is based on the concept of a social identity—the part of an individual's self-concept derived from perceived membership in a relevant social group (Turner and Oakes 1986). Social identity encompasses the way individuals place themselves in their surrounding environment, and their attitudes, feelings and perceptions in the host society impact their behaviours. A key aspect of social identity theory is the impact of cross-cultural diversity (e.g. collectivism–individualism) on group membership, attitudes and perceptions (Brown et al. 1992). Geographical transitions from home to host countries lead to alterations in individuals' attitudes and behaviours in a new environment, which requires individuals to harmonize their attitudes and behaviours with the norms and values of the new environment. During this process, individuals' identification with either culture (home or host) is a fundamental issue. The more knowledge individuals acquire about either culture, the greater would be their tendency to identify with that culture, which—in turn—can impact their perceptions and attitudes (Deaux 1996).

In accordance with the principles of social identity theory, it can be argued that international students' identification with either home culture or host culture can influence their perceptions towards ethical academic behaviours. Review of the extant literature on acculturation attitude, ethical and unethical behaviours, unethical behaviour intentions, attitudes towards unethical behaviours, and influence of ethical climate on unethical behaviours suggests that performing ethical academic behaviours have their roots in various aspects of students' cultural, social and educational factors. For instance, the study by Martin et al. (2011) on the relationship among ethnicity, acculturation and plagiarism of undergraduate and graduate students found that students' level of acculturation causes significant differences in their plagiarism behaviours. Moreover, students' perception towards plagiarisms was attributed to confusion, perceived sanctions, academic consequences, perceived seriousness and resentment (Gullifer and Tyson 2010). Additionally,

Crittenden et al. (2009) found that students from more corrupt countries had higher tendency towards unethical conducts compared to their counterparts in less corrupt countries. It also appeared that in corrupt countries, law seems to be the ethical gauge for students' decision-making. Besides, cultural affiliation, perceived norms in academic culture and language proficiency were outlined as the key factors influencing academic acculturation (Jiang et al. 2010). Furthermore, international students' attitudes towards norms were found to play a crucial role in their academic acculturation orientation in a study of international students' socialization in the USA (Suspitsyna 2013). In several other studies, the factors of social and academic integration of students were proven to impact their attitude towards academic ethical and unethical intention (e.g. Chen and Tang 2006; Severiens and Wolff 2008).

In a study of a business school in Hong Kong, Birtch and Chiang (2013) found that ethical climate of the educational institutions significantly influences perceptions of students' unethical behaviours. Besides, high moral and institutional identities of concerned educational providers played key roles which impacted the relationship between ethical climate and unethical behaviour. Moreover, in the context of Malaysia, Nga and Lum (2013) provided evidence that gender caused differences in terms of intention towards unethical behaviour intentions. In other words, egoism and peer influence were the two main factors affecting male students' unethical behavioural intention, whereas utilitarianism and magnitude of consequences were found as the significant factors for the female students. In a study of undergraduate students from UK and Malaysia, it was found that cultural background had a significant role in causing discrepancies between the students in terms of their perceptions towards ethical behaviours in computer-related situations (Hay et al. 2001). In the same vein, in observing differences between business students from New Zealand and Malaysia regarding their perceptions towards ethical behaviours, it was found that students' ethical attitudes would differ not only due to their nationality but also due to their ethnic origin (Goodwin and Goodwin 1999).

Elsewhere, the critical role of acculturation in relation to ethical behaviours was researched in the context of immigrants. A study by Swaidan et al. (2006) identified various acculturation strategies that resulted in differences in immigrants' views regarding consumption ethics. In the case of international students pursuing their education overseas, the level of their adaptation to the new culture and maintaining their original ethnicity can largely influence their identity formation in the new society (Berry 1997). Since social, cultural and educational aspects of international students play pivotal roles in influencing their attitudes towards ethical and unethical academic conducts, the degree to which international students keep their original identity and/or adopt one in line with the host society's cultural norms would be instrumental in influencing their behaviour. Thus, examining the link between international students' acculturation orientation and their attitudes towards ethical and unethical academic behaviours may provide clues as to the kind of acculturation strategy which could cultivate ethical behaviours among international students. Overall, prior literature elucidates that acculturation and adaptation are pivotal factors in explaining individuals' attitudes towards ethical behaviours. Although previous studies found individuals' cultural background as an important factor influencing their ethical attitude, there is paucity of research in the extant literature in terms of examining students' cultural orientation (i.e. acculturation attitude) in relation to their perceptions towards ethical academic conduct in the context of Asian region in general and Malaysia in particular.

The research model, theoretical frame and the hypotheses

Social identity theory provides the theoretical underpinning for this study. Social identity is the part of an individual's self-concept derived from perceived membership in a relevant social group (Turner and Oakes 1986). Social identity theory is based on the concept of a social identity as a way in which to explain intergroup behaviour (Tajfel and Turner 1986). The role of individuals' categorization within a society and their attitudes and perceptions can be explained through two key aspects of social identity theory: (1) social categorization and comparison in association with self-esteem (Tajfel and Turner 1986) and (2) the impacts of cross-cultural diversity (e.g. collectivism–individualism) on group membership, attitudes and perceptions (Brown et al. 1992).

Specifically, individuals' identification with any groups in a new society with the influence of cross-cultural diversity can affect their perceptions and attitudes. In fact, the geographical transitions lead to alteration in individuals' attitudes and behaviours in a new environment, which requires individuals to harmonize their attitudes and behaviours with the norms and values of the new environment. During this process, individuals' identification with either culture (home or host) is a fundamental issue. The more knowledge individuals acquire about either culture, the greater would be their tendency to identify with that culture, which—in turn—can impact their perceptions and attitudes (Deaux 1996). Specifically, since social identity encompasses the way individuals place themselves in their surrounding environment, their attitudes, feelings and perceptions in the host society impact their behaviours.

Two main gaps in our current knowledge about international students' acculturation are evident from the review of the literature. First, the impact of attachment versus adaptation-centric acculturation attitudes on ethical behaviour in academic tasks has not yet been

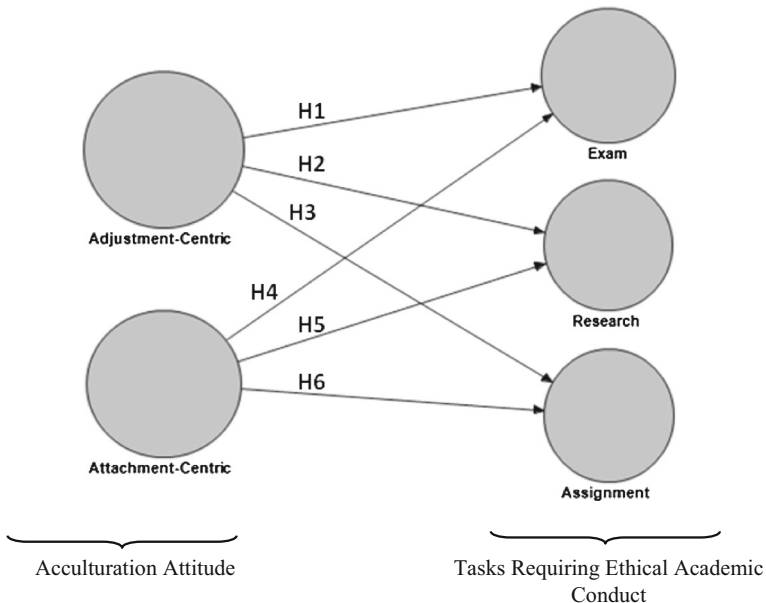


Fig. 1 The research model

modelled and investigated. Doing so is important because in the competitive global market for higher education it is paramount to retain students while upholding standards of academic integrity and quality. Second, it is not clear from extant research whether international students' acculturation in a developing, non-Western context may be different from that of acculturation in a developed, Western country. Most studies on acculturation issues concerning international students' academic integrity were conducted in the context of the West particularly in the English-speaking countries where student 'sojourners' are increasing (Zhou et al. 2008). Acculturation issues may differently impact international students' perceptions and practices of academic norms when undertaking their studies in an Asian country. With English-speaking, economically developing Asian countries, such as Malaysia, emerging as new providers of global higher education, it is timely and pertinent to consider how acculturation in such countries may affect the international students' academic integrity.

To address these gaps in extant acculturation research, the current study aims to investigate whether international students' acculturation attitudes (i.e. adjustment-centric or attachment-centric) significantly influence their attitudes towards tasks requiring ethical academic conduct. The theoretical model along with the hypothesized paths can be seen in Fig. 1. International students' orientation to acculturation is examined through two constructs: attachment centrality (maintaining home country culture) and adjustment centrality (adapting to the host country culture). Students' ethical behaviour in tasks requiring ethical academic conduct is captured in three constructs, representing three scholarly tasks in which students make choices regarding their ethical academic conduct: examination assessment, assignment assessment and research-related work.

The following six hypotheses state the relationships between the constructs to be empirically tested in the research. As confirmed in a study by Swaidan et al. (2006) in a non-student setting, the way immigrants perceived consumption ethics was highly influenced by their acculturation strategy or attitude. The study found that the degree to which immigrants showed tendency towards adapting to the host country's mainstream culture or maintaining their home country's culture influenced their perceptions towards consumption ethics. Besides, in convergence with social identity theory, individuals' categorization and identification with either home or host culture could influence their perceptions, feelings and attitudes. In the same vein, Berry (1997) emphasized that individuals' identity formation in a new environment highly depends on the cultural changes which could impact their attitudes and behaviours. Consequently, the way international students acculturate could influence their attitudes and behaviours towards ethical academic conducts, which is the objective of this study and is examined through the lenses of the hypotheses below:

- H1 International students' adjustment-centric acculturation attitudes positively influence their ethical academic conduct in examinations
- H2 International students' adjustment-centric acculturation attitudes positively influence their ethical academic conduct in research
- H3 International students' adjustment-centric acculturation attitudes positively influence their ethical academic conduct in assignments
- H4 International students' attachment-centric acculturation attitudes negatively influence their ethical academic conduct in examinations
- H5 International students' attachment-centric acculturation attitudes negatively influence their ethical academic conduct in research

H6 International students' attachment-centric acculturation attitudes negatively influence their ethical academic conduct in assignments

Measures

Acculturation attitude is based on the bi-dimensional model of acculturation which includes individuals' attitude and willingness towards either adopting the host country's culture or maintaining their ethnic culture (LaFromboise et al. 1993). Subsequently, attachment-centric attitude has been operationalized as the individuals' willingness in keeping their ethnic culture, while adjustment-centric attitude has been operationalized as the individuals' willingness towards adopting the new cultural norms and values. The scale applied to measure both 'adopt' and 'keep' attitudes was adapted from Swaidan et al. (2006). This scale included ten items: five items for measuring 'adopt' and five items for measuring 'keep' attitude. A typical item for adjustment-centric acculturation is '*I should behave in accordance with host country's culture*' and a sample item for attachment-centric acculturation is '*I should be attached to my original culture*'.

Academic dishonesty or academic misconduct is a form of unethical academic behaviour which involves any type of cheating. It has been operationalized and measured in this study using a scale adapted from Brimble and Stevenson-Clarke (2005). It evaluated the tasks requiring ethical academic conduct in three areas, namely exams, assignments and research. Overall ten incidents of academic dishonesty were provided to respondents, and they were asked to express their perception about the severity of each of them based on a scale comprising of three measures (no cheating, minor cheating and serious cheating). A typical example of misconduct concerning exams included '*taking unauthorized material into a test*'; '*paying another person to complete an assignment*' was an example of assignment-related misconduct; '*padding out a bibliography with references that were not actually used*' was an example of research-related misconduct. Respondents indicated their opinion on the perceived degree of cheating on each of the items, using a three-point scale, whereby one indicated as no cheating, two indicated minor cheating, and three indicated serious cheating. A higher score indicated that the respondent is aware of the seriousness of the presented misconduct and, hence, shows a higher ethical attitude of the respondent.

Research methodology

Data collection

This research adopted a quantitative approach for collecting data using a structured survey instrument. A total of 375 questionnaires were distributed to the international students enrolled in social science and arts clusters in a public university in Malaysia, who were randomly selected. Of the 375 questionnaires distributed, 198 were returned of which 178 were deemed usable yielding a response rate of 47.5 %.

To address the need for more research into international students' acculturation in a developing education market, this study was conducted in a Malaysian university. Malaysia has been experiencing tremendous development in all sectors of the economy including education in recent years (Cheng et al. 2013). In recent years, there has been an influx of international students in Malaysian universities (Verbik and Lasanowski 2007). This may be attributed to the fact that English is the medium of instruction in the higher

education sector, and English is widely spoken in Malaysia especially in the academic circle. Furthermore, Malaysian universities have been recruiting teachers from foreign countries, making their teaching faculties culturally diverse. Another possible factor attracting international students to Malaysia is that Malaysian universities are offering affordable quality education, with lower living expenses compared to other countries (Cheng et al. 2013). Keeping the above state of affairs in mind, we have drawn the sample of international students from a public Malaysian university.

Statistical technique

Partial least squares structural equation modelling (PLS-SEM)—a variance-based structural equation modelling—was used to analyse the data for this study. PLS was considered more suitable than CB-SEM because (1) the sample size was relatively small (below 200), (2) multiple independent and dependent constructs can be analysed simultaneously, and (3) the focus of the model is more on prediction than theory testing (Hair et al. 2010). Additionally, PLS is a nonparametric approach and is not limited with assumptions of the multivariate normality of data, skewness, multicollinearity, small sample size and specification error (Diamantopoulos and Siguaw 2000). The statistical software application ‘SmartPLS 2.0’ (Ringle et al. 2005) was used for PLS-SEM. The significance of the research paths was assessed through a bootstrapping process with 500 samples, as suggested by (Chin 2010).

Data analysis and results

The demographic profiles of the respondents revealed that majority of respondents were male (60.7 %) and currently studying at postgraduate level. Over 68 % of respondents belonged to the age bracket of 20–30 years, and the rest were in the age bracket of over

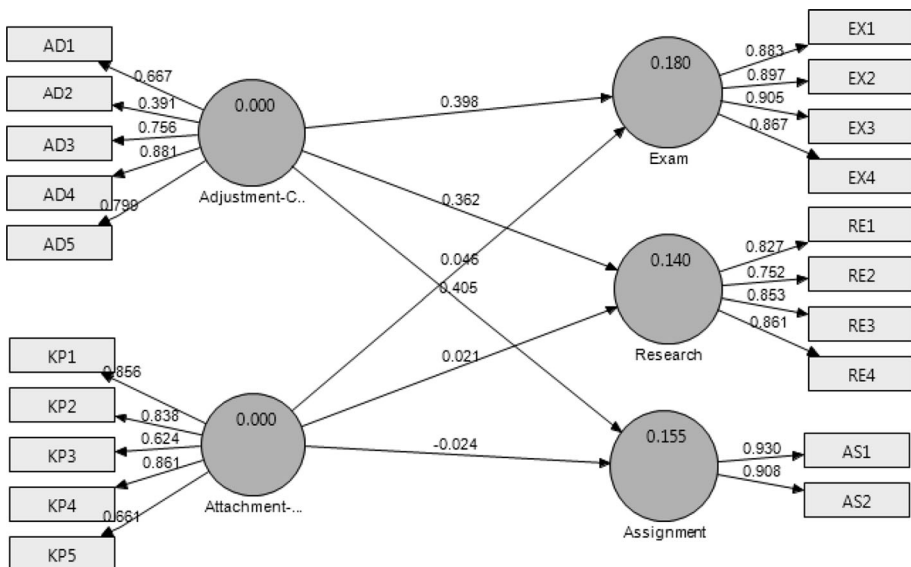


Fig. 2 Measurement model analysis

30 years. An overwhelming majority of the students (80 %) were from other Asian countries, namely China, Iran, Pakistan, Yemen, Indonesia, and the rest were from Africa (18.5 %) and Europe (1.1 %). In SmartPLS, analysis was undertaken in two stages: (1) validating the measurement model (i.e. confirmatory factor analysis ‘CFA’) and (2) validating the structural model (Hair et al. 2010).

Measurement model assessment

To validate the measurement model (i.e. CFA) in SmartPLS, item loadings, average variance extracted (AVE) and composite reliability (CR) were assessed by running PLS algorithm. Figure 2 depicts the measurement model in SmartPLS.

As shown in Fig. 2, the item loadings for all constructs are above the cut-off point of 0.5 (ideally 0.7) according to Fornell and Larcker (1981) and Hair et al. (2010), except one item (i.e. AD2) in ‘acculturation-centric’ construct. It has a loading of 0.391 which is below 0.5. Therefore, item ‘AD2’ was discarded before running the PLS algorithm again to check for the AVE and CR. Table 1 illustrates the results of the measurement model after discarding item ‘AD2’.

As shown in Table 1, all the item loadings are above the cut-off value of 0.5 (ideally 0.7) (Fornell and Larcker 1981; Hair et al. 2010). Moreover, all constructs had acceptable average variance extracted (AVE) ranging from 0.601 to 0.845 which are above the threshold of 0.5 (Fornell and Larcker 1981; Hair et al. 2010) and acceptable composite reliability ranging from 0.861 to 0.937 above the cut-off point of 0.7 (Hair et al. 2009).

Table 1 Item loadings, AVE and composite reliability assessment

Construct scale	Item	Loadings	AVE	Composite reliability
Adjustment-centric	AD1	0.651	0.611	0.861
	AD3	0.761		
	AD4	0.883		
	AD5	0.812		
Attachment-centric	KP1	0.856	0.601	0.881
	KP2	0.838		
	KP3	0.624		
	KP4	0.861		
	KP5	0.662		
Exam	EX1	0.882	0.789	0.937
	EX2	0.898		
	EX3	0.906		
	EX4	0.867		
Research	RE1	0.827	0.68	0.894
	RE2	0.752		
	RE3	0.854		
	RE4	0.859		
Assignment	AS1	0.93	0.845	0.916
	AS2	0.909		

Table 2 Discriminant validity of the constructs ($N = 198$)

	Adjustment	Attachment	Exam	Research	Assignment
Adjustment	0.782				
Attachment	0.534	0.775			
Exam	0.412	0.246	0.888		
Research	0.346	0.188	0.677	0.825	
Assignment	0.387	0.193	0.585	0.598	0.919

In addition, the discriminant validity of the constructs was measured using the square root of the average variance extracted (AVE). As shown in Table 2, the square root of average variance extracted (AVE) on the diagonals (in bold) for each construct is larger than its correlation with all the other constructs confirming the discriminant validity of the constructs.

Overall, the measurement model (i.e. CFA) was assessed and confirmed by examining convergent validity and discriminant validity.

Structural model assessment

To assess the structural model, a bootstrapping approach was applied in SmartPLS to determine the significance of the paths in the model. Figure 3 illustrates the bootstrapping results at 500 bootstrapped samples.

Among the six hypotheses advanced in this study, three (H1–H3) were supported at $p < 0.01$ confidence level. For acculturation-centric students, a positive and significant effect on all the three endogenous variables (i.e. exam, research and assignment) was found. The attachment-centric students showed no statistically significant paths in relation to these variables. Therefore, Hypotheses 4–6 were not supported. Table 3 shows a summary of the structural model analysis.

Conclusions

Discussion

Findings of this study corroborate prior research, which indicate that acculturation attitude of international students causes significant differences in their behaviour towards plagiarism (Martin et al. 2011), and introduce acculturation attitude as the crucial factor in performing certain behaviours in either academic or non-academic contexts (Birtch and Chiang 2013; Suspitsyna 2013; Swaidan et al. 2006). In accordance with social identity theory (Tajfel and Turner 1986), the results of this study show that the way international students acculturate in the host country (i.e. Malaysia) affects their attitudes, perceptions and feelings. The study revealed two different groups of students in terms of their inclination to the host country's ethical norms in relation to three academic tasks. *Adjustment*-oriented students' significant positive attitudes towards ethical academic conduct reflect their adaptation-oriented values. Adjustment-centric students seem to embrace the reality that when they are in another country, they need to comply with the norms and values of the host country. These students are realistic and practise the old proverb of 'when in

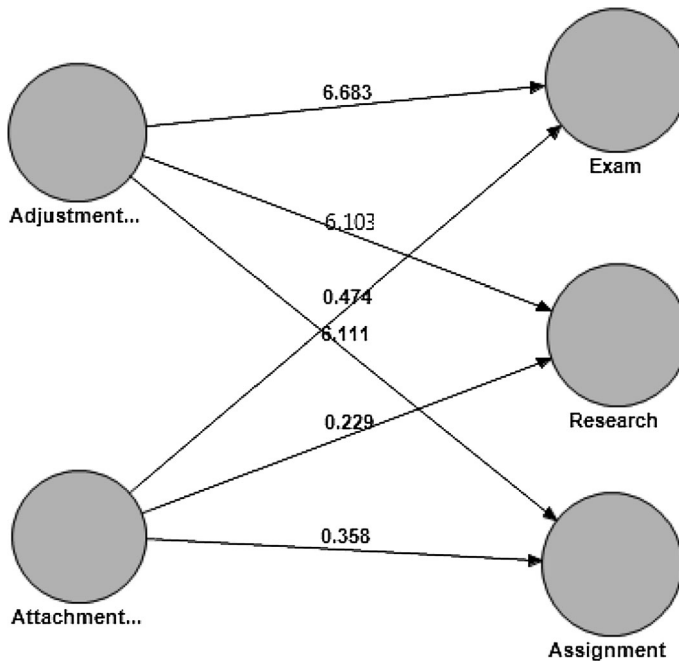


Fig. 3 Results of structural model assessment

Table 3 Parameter estimates of the structural model

Hypothesis	Relationship	Sample mean (M)	Standard error	T value	Decision
H1	Adjustment → Exam	0.419	0.060	6.683**	Supported
H2	Adjustment → Research	0.363	0.060	6.103**	Supported
H3	Adjustment → Assignment	0.413	0.068	6.111**	Supported
H4	Attachment → Exam	0.049	0.078	0.474	Not supported
H5	Attachment → Research	0.034	0.081	0.229	Not supported
H6	Attachment → Assignment	-0.012	0.087	0.358	Not supported

** $p < 0.01$

Rome, do as the Romans do'. Consequently, when they show a higher tendency towards adapting to the host environment's academic rules and regulations, they demonstrate more awareness about the ethical academic conduct in assignments, exams and research. This awareness of the host country's academic ethical rules and regulations shapes up international students' attitudes towards performing ethically in academic environment. Given their proclivity to adapt, adjustment-centric students do not need any special attention from their local educational institutions, as they have already adapted themselves to the local academic culture.

By contrast, the absence of a statistically significant relationship between *attachment*-centric acculturation and ethical academic attitude suggests that—due to higher level of reliance on the norms of their countries of origin—students upholding an attachment-

centric acculturation approach are not likely to adapt to the ethical academic norms of the host countries' educational system. This is a critical issue because it undermines student learning and, possibly, institutional reputation. Hence, addressing the issue of some international students' attachment-centric acculturation and their concomitant proclivity to academic misconduct deserves serious attention from students, academics and university management.

Implications

Since Malaysia has emerged to transform its higher education into a hub of teaching and learning excellence in the region (Ministry of Higher Education Malaysia 2009), a large number of international students with diverse cultural backgrounds have been enrolled in its higher education sector. This may raise concerns whether these students would behave in line with Malaysian academic ethical norms and practices. Foreign students whose acculturation behaviour is rigid in terms of their strict attachment to their original cultural norms may pose a threat to the host countries' effective implementation of the academic integrity standards. Nonetheless, it is strategically important to retain foreign students in terms of additional revenue generation and market expansion and maintaining institutional reputation. Therefore, well thought out academic policies towards educating the attachment-centric students to adopting the local academic norms need to be designed, whereby these 'institution-wide policies for awareness-raising, guiding and supporting international students and their teachers, should be comprehensive, easily accessible and practical' (Zhou et al. 2008, p. 73).

Consequently, findings of this study offer important implications for universities internationally to integrate the issues into their management, planning and policy, as the internationalization of education is likely to grow further in the coming years due to the growth in the number of students' interests for pursuing their higher studies abroad. Specifically, Malaysian Government needs to design appropriate programs to educate these students towards familiarizing them with the local academic norms and values. Achieving excellence in higher education would be defeated if international students do not practise the ethical academic norms followed in the Malaysian higher education sector. Findings of this study imply that Malaysian authorities responsible for higher education need to ensure international students adapt successfully to the Malaysian societal and academic norms and behave more ethically in the local academic environment. Several of such policy measures suggested in this paper are elaborated below.

Mid- to long-term strategies to boost international students' acculturation and, consequently, academic integrity may include information sessions, training programs, in-class demonstrations and activities and seminars focusing on the major policies and their impact on students' academic integrity. Encouraging mentoring, as well as peer networking using social media can also be effective in gradual change of students' perceptions of unethical academic behaviours in their host institutions. Since unethical behaviour in an academic setting has been shown to have strong links with attitude towards unethical behaviour in the business world (more acceptance of the need for unethical behaviour in business) (Lawson 2004), understanding factors which influence students unethical conduct can help in effective management and minimization of such practices.

Contributions

This study offers new insights from the context of an advanced developing Asian country for investigating international students' acculturation and academic integrity. Specifically, this study extends our knowledge of international student acculturation by measuring and determining the relationships between the two main types of acculturation attitude, as well as three types of ethical academic conduct. We have shed some light on foreign students' attitudes on ethical academic behaviour in terms of their acculturation in a hitherto relatively unknown Asian country. Students, who make the effort to adjust to the Malaysian culture, tend to exhibit attitudes of higher academic integrity. This appears to be consistent with extant studies of students' acculturation to a developed, Western country context. Today many advanced transitional economies, such as Malaysia, are generating enough wealth to finance the education of its population. For instance, the Malaysian Government is investing heavily in its higher education sector to create better opportunities for local and international students and scholars through providing scholarships and creating visiting and regular teaching and research positions (Cheng et al. 2013). The findings of this research may prompt broad-based future studies concerning academic conduct of international students and academic staffs in the context of an advanced transitional economy. Furthermore, this study can also be extended to the developed countries to capture the differences of perception of international students' acculturation experience there. Insights into the possible differences can lay the foundation of comparative studies in future.

Limits and future research

This research was based on information gathered from a relatively small sample collected from one single university in one country, which may limit the generalizability of the findings. Future research could overcome this limitation by drawing samples from different educational institutions in Malaysia and beyond. Furthermore, additional variables, such as acculturation to a university's culture and norms (as opposed to a country's culture norms), should be explored in future study models towards broaden the base of research for better explanation of the issues raised and tested in the present study. Further studies might also explore the differences between male and female students, as well as between students from different geographical regions. Also a comparative study of academic practices of foreign students and repatriate academics and research staff would add to knowledge, prompting future studies in this field. Finally, future studies can be directed to China and India which are also attracting foreign students and academics.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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