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**Far apart yet close by: Social media and acculturation among international students in the UK**

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## **Abstract**

This paper investigates international students' acculturation, an important aspect for universities to consider when they try to develop a positive loyal customer relationship with international students. The paper presents the influences of social media usage on international students' acculturation process in both psychological and behavioural aspects, and whether international students' acculturation predicts students' academic achievement, perceived value and university loyalty. Self-identification is examined for its moderating effect between social media usage and Chinese international students' acculturation. This study collected samples from Chinese international students studying in UK universities. The results find that Chinese international students' psychological acculturation to the host culture has no significant relationship with their academic achievement, but their strong self-identification can help with their host culture acculturation. This study makes contributions in current acculturation research and managerial practice for universities which target international markets.

**Keywords:** Social media usage; cultural acculturation; psychological acculturation; behavioural acculturation; perceived value; loyalty; self-identification

# **Far apart yet close by: Social media and acculturation among international students in the UK**

## **Introduction**

With increasing globalisation of the higher education (hereafter HE) sector in many developed countries, such as the U.S., the U.K., Australia, New Zealand, and Canada, the number of international students attending universities in different countries is still fast increasing. For instance, there were a total number of 438,010 non-UK students studying in UK HE institutions in 2015-2016 (UKCISA, 2017). The arrival of international students is seen as a great contribution to these countries culturally and economically. Universities nowadays are operating in the context of intensified international competition for recruiting international students (Hemsley-Brown & Oplatka, 2014; Palmer, Koenig-Lewis & Asaad, 2016). To improve international students' experience in their university education and help them achieve academic success, student support services have been making a great deal of effort to help international students fit in and overcome acculturative stress. For universities competing for international students, it is critical to find ways of developing a loyal relationship with international students.

Past research has emphasised the association between traditional media use and acculturation among immigrants, sojourners or expatriates. For example, Kline and Liu (2005) investigated media use (e.g. telephone calls and emails) among Chinese international students studying in the U.S. in relation to their acculturation, stress and family bonding. Allison and Sommer (2011) compared the acculturation between people from individualist and collective cultures and how media use impacts acculturation. Media use, including television, movies, video games, music, etc., is measured via the individual's choices in English versus non-English media. With the fast development in technology, there is a wide adoption of different social networking sites (SNSs) or social media platforms, particularly among young people

(Whiting & Williams, 2013). This provides ease of access for international students to SNSs so that they can communicate with friends, family members, colleagues and members of interest groups nearly anytime and anywhere. The host country social media is considered to play a positive role in reducing international students' acculturation stress and enhancing their psychological wellbeing (Park, Song & Lee, 2014).

Past research has shown that Chinese students might struggle more in adapting to a new cultural environment, experience high levels of stress due to their neuroticism and perceived cultural distance (Forbush & Foucault-Welles, 2016). On the other hand, given that China has a collectivist culture (Hofstede, 1984), using social media can easily enable Chinese international students to be included in an in-group, i.e. the Chinese community, which may discourage their interaction with people from other groups. Hence, this particular market segment calls for scholarly investigation about the impact of social media on Chinese international students' acculturation process in the host country and its outcomes relating to their university experience.

To explore further our current understanding on international students' acculturation, this study adopts a quantitative research method to investigate a) the influence of social media usage on international students' acculturation process in both psychological and behavioural aspects; b) the impact of Chinese students' cultural acculturation on their academic achievement; c) whether international students' academic achievement will influence their perceived value and university loyalty. Self-identification is used as a moderator to investigate its intermediation effect between international students' social media usage and cultural acculturation. An individual's ethnic self-identification is highly relevant to his/her acculturation process in terms of ideological and behavioural changes. Chinese international students' self-identification can be characterised by how persistently and strongly these

individuals maintain their ethnic cultural traits when interacting with others from different cultural backgrounds (Cleveland et al., 2009).

### **Theoretical Framework and Hypotheses Development**

Acculturation occurs when groups of people from different cultures interact continuously, which brings about psychological and behavioural changes in individual members of these groups (Berry et al., 1989; Sam & Berry, 2010). Psychological acculturation refers to changes in individuals' psychocultural orientations that develop through involvement and interaction within new cultural systems (Tropp et al., 1999). Behavioural acculturation may be composed requires measures for the multiple facets, such as, language, media usage, social interaction, food consumption and religion (Cleveland et al., 2009). With continuous interactions, an acculturation process can be observed as a group-level phenomenon (Berry et al., 1987; Ryder, Alden & Paulhus, 2000). The acculturation process and outcomes are perceived as particularly important to modern societies due to the potential downsides, as well as contributing to the understanding of intercultural contact in multicultural societies (Berry, 2008).

Early research in the area has tended to focus either on the psychological or behavioural changes occurring during individuals' acculturation process. The bulk of previous research emphasized the stress, depression or mental health issues existing among eastern immigrants who tried to adapt and adjust to the culture in their host countries (e.g. Berry et al., 1987; Oh, Koeske & Sales, 2002; Yeh, 2003). In studying the degree of an individuals' negotiation between the host and home cultures, unidimensional and bi-dimensional acculturation models represent two key research strands. Whilst a unidimensional approach to acculturation argues that the change of individuals' identity is measured on a continuum ranging from home culture to host culture (Ryder et al., 2000), Berry (1980) proposed a four-pattern acculturation

strategy including assimilation, integration, separation and marginalization, while Mendoza and Martinez (1981) also proposed a four-pattern typology including cultural resistance, shift, incorporation and transmutation. Recently, there has also been a trend of research in acculturation relating to political and social wellbeing in terms of reducing conflicts between dominant and non-dominant groups in seeking social stability and mutual understanding as well as peaceful co-habitation (e.g. Sam & Berry, 2010; Luedicke; 2015).

International students represent a group of individuals going through the acculturation process quite differently from the other groups, such as immigrants, or long-term expatriates. International students normally have a comparatively short-term stay with a strong intention to go back to their home country (Forbush & Foucault-Welles, 2016). Upon their arrival in the new host environment, international students may exhibit cultural ‘shock’ or cultural ‘stress’, which largely involves one’s psychological and physical well-being (Selmer, 1999, 2001). They may have to experience great cultural differences between their home and host countries, which may be reflected in their daily life in the new cultural environment via their media and food consumption, degree of participation in activities of the host culture, or their development of social ties (Ward & Kennedy, 1993 Cleveland et al., 2009). Communicating and learning in a different language, observing and following different norms or customs, international students may encounter great challenges in culture acculturation together with academic pressure during their overseas educational experience (Park, Song & Lee, 2014).

### **Social media usage and acculturation**

The acculturation literature has been repeatedly criticised for its ‘one size fits all’ approach (Rudmin, 2003; Schwartz et al., 2010). Berry’s (1980) acculturation model has long been criticised for its narrowness in characterizing all migrants in the same way regardless of their countries of origin, settlement locations, or contextual factors (Schwartz et al., 2010).

Cultural traits, such as food, media, language, clothing, and daily practice of life or holiday celebrations are normally selected to detect the processes of acculturation (Schwartz et al., 2010). Cleveland et al. (2009) have highlighted the important traits in the acculturation process, such as food, media, interpersonal relationships, language, participation in home and host cultures and self-identification.

Host country media normally provides sojourners in countries with a variety of cultural elements and cues to help their comprehension of the new culture's historical and current issues, which enables them to learn the ideologies or values of the host culture (Raman & Harwood, 2016). Hence, media use serves as a primary driver by which immigrants become acculturated to a new social environment (Wilkin, Katz & Ball-Rokeach, 2009). For example, in their research Hwang and Zhou (1999) discovered that Chinese immigrants in the U.S. who used more English media demonstrated a higher level of acculturation. Dalisay (2012) examined the acculturation and media use among new immigrants in the U.S. and claimed that people who used English language media more frequently than the ones in their country of origin tended to use native language media less frequently. Reece and Palmgreen (2000) conducted research among Indian sojourners in the U.S. and their research demonstrates the importance of American TV viewing as a valuable cultural information source for Indian students in their acculturation process. Raman and Harwood (2016) found a positive relationship between media consumption and acculturation amongst Asian Indian professionals in the U.S.

With the widespread use of the Internet, SNSs that provide various sources of online information become one of the most important communication tools for people from all around the world (Murugesan, 2007; Williams et al., 2012). Although social media shares a similar role to traditional media, it reaches beyond the traditional function of media. Individuals use social media to seek information to fulfil their needs and gratifications



(Lariscy et al., 2011), to interact with people (Park et al., 2014) and for entertainment (Williams et al., 2012).

Previous research has investigated the relationship between social media usage and acculturation in different aspects. Much acculturation research suggests that the use of host country media facilitates acculturation whilst the frequent use of a home country's media retards acculturation (e.g. Lee & Tse, 1994; Hwang & Zhou, 1999). For example, Li and Tsai (2015) argue that people who consume more ethnic social media tend to show stronger ethnic cultural identification. Park et al. (2014) suggested that Chinese international students who spend too much time connecting with their home country interpersonal network via SNSs may slow their acculturation process and result in increased acculturative stress. Similarly, Cemalcilar et al. (2005) reported that the use of social media to communicate with the culture of the home country is associated with a higher degree of ethnic identity maintenance whilst using social media to communicate with the host country is associated with better social-cultural adaptation to the host culture. Dalisay (2012) suggested a positive relationship between host country media usage and English language proficiency, social interaction and host culture understanding.

Instead of examining the preference to use the social media relating to the home versus the host culture, we focus on the content of social media usage, i.e. knowledge sharing, interaction or entertainment, for Chinese international students while they are studying in UK universities. When students use social media as a platform to communicate with friends, colleagues, family members; a source to access to the different types of entertainment; and a channel to share knowledge, they are more likely to understand what is happening, to keep knowledge updated, to experience less culture shock and stress, etc. Hence, we hypothesise that:

H1: There is a positive relationship between social media usage and a) psychological acculturation and b) behavioural acculturation to the host culture among Chinese international students in UK universities.

### **Acculturation and academic achievement**

Students choose to study abroad with purposes such as achieving their own personal goals, adventure, enjoyment, and cultural stimulation (Sandhu & Asrabadi, 1994). Leaving family and friends behind, international students travel all the way to an unfamiliar country and experience all sorts of challenges. Regardless of all the personal, social and environmental changes in their sojourning life, the major object for them is to complete their university degree with an expectation of good grades. Existing research has demonstrated mixed and complicated outcomes when examining the relationship between international students' acculturation to their host culture and their academic achievements (Rienties et al., 2012). From the psychological acculturation perspective, Rienties et al. (2012) argue that international students' academic performance is positively affected by their integration with the host culture. Glass and Westmont (2014) claim there is a positive relationship between a sense of belongingness among international students and their average grade achieved. Khawaja and Dempsey (2008) found that international students with less adaptation to the host culture are more unlikely to meet the academic expectations of the university.

From the behavioural acculturation perspective, the existing literature has argued that, when international students acquire a good level of language, they can fit into the academic environment better and hence achieve better academic performance (Dalisay, 2012). The frequent use of host cultural media may provide students with a route for cultural contact and avoid the uncertainty and anxiety in interpersonal interactions during their acculturation process (Kim, 2001). Glass and Westmont (2014) discovered that when international students

obtain a strong sense of belongingness to the host culture, they tend to have an increased interaction with domestic students, which consequently leads to enhanced academic achievement. Although previous research did not show a direct link between traditional media use and academic performance among international students, we propose that Chinese international students in the UK who have a higher level of behavioural acculturation to the host culture may have better academic achievement. Hence, we propose that:

*H2a: There is a positive relationship between Chinese international students' psychological acculturation to the host culture and academic achievement.*

*H2b: There is a positive relationship between Chinese international students' behavioural acculturation to the host culture and academic achievement.*

### **Academic achievement, perceived value and loyalty**

Extant research demonstrates that product and service quality can predict customer perceived value (e.g. Zeithaml, 1988; Ryu et al., 2010). Customer perceived value can be defined as the result of the personal comparison between perceived overall benefits and the perceived sacrifices or costs paid by the customer (Zeithaml, 1988). The concept of customer perceived value is the personal subjective judgement of the product or service provided (Parasuraman et al., 1985). For higher education, international students travel overseas to complete their degree. The possibility of achieving a higher level of academic performance is considered to be a key product provided by the HE institutions.

In eastern countries, such as China, South Korea, and Japan, people tend to value and show great respect for academic success. Studying overseas has been always associated with elites since over a hundred years ago in China. Only the most outstanding students were sent to the U.S., the U.K or European universities because of their outstanding academic provision and these students were sponsored by the government or other institutions; hence, with a

strong focus on the academic side of studying abroad, achieving academic success is something particularly important for eastern Asian students (Park et al., 2014). Once they achieve their academic goal, they tend to have a higher perceived value towards the university for providing them with a quality academic service. Chinese international students' successful academic performance leads to their overall positive perception of their overseas studying experience and university brand, which will lead to their university loyalty in terms of their proactive promotion of their UK universities to prospective students (Palmer, Koenig-Lewis, & Asaad, 2016). Therefore, we propose the hypothesis:

H3: Higher level of academic achievement has a positive impact on university perceived value among Chinese international students.

Existing research has empirically proved a strong correlation between product perceived quality and satisfaction and brand loyalty (Selnes, 1993). Paswan and Ganesh (2009) investigated the relationship between international students' satisfaction with higher educational service providers and students' loyalty empirically. They point out that students' loyalty can only be achieved by the HE institutions providing a superior quality of education as perceived by the students together with other augmented offerings, such as finance, location, campus life and student support. International students who have pleasant university experiences, such as a safe and secure environment, up-to-date instructional resources and recreation facilities, opportunities to interact with local students, accomplishment of personal and educational goals will exhibit a stronger loyalty towards the university and are more likely to share their experience and recommend the university to others (Paswan & Ganesh, 2009; Chueng & Lee, 2012; Yu et al., 2017); hence, we hypothesise:

H4: University perceived value has a significant positive effect on Chinese *international students'* university loyalty.

### **Self-identification as a moderator**

Identity theory argues an individual's identification of which social category or group that he/she belongs to (Hogg and Abrams 1988). A social group refers to "a set of individuals who hold a common social identification or view themselves as members of the same social category" (Stets and Burke, 2000: 225). Through social group identification process, individuals categorise themselves into certain groups and form their identity as in-group versus outgroup. Culture or ethnicity is one of the bases for a person's self-identification (Stets and Burke, 2000). Trying to balance two contrasting cultures or adjust to the host culture will result in changing one's cultural identity. The formation of a new cultural identity requires the student to undergo a continuous and dynamic negotiating process between the host and home culture, i.e. holding onto one's native country's culture and adapting to the culture of the country where one lives (Kraidy, 2002; Young, 2009). A strong cultural identity is expected to make it more difficult for people to adapt to the host culture (Ward & Kennedy, 1993). Ethnic self-identification emphasises how immigrating/sojourning individuals demonstrate their cultural traits maintenance when overseas (Cleveland et al., 2009). Maintaining a strong ethnic identify by being heavily inclined to use media from the home country, interacting mostly with people from the same culture or mainly speaking the home country language can be viewed as the students being unwilling to integrate into the host society and hindering their acculturation to the host culture (Hirji, 2006). However, based on Berry's acculturation framework, international students who adopt the "integration acculturation strategy" may demonstrate bicultural identities, which means that an individual can adopt the host culture and, at the same time, remain true to their heritage culture. Ryder et al.'s (2000) study suggested the coexisting cultural self-identification model, which is unlike the unidimensional approach which puts individuals' identities on a continuum, i.e. as the

host identity grows the home identity diminishes, or vice versa. In fact, Buddington (2002) argued that international students who are comfortable with their ethnic identity and communicate frequently with their friends and family members from the same ethnic background tend to have higher self-esteem; hence, we hypothesise that:

H5: Chinese international students' self-identification has a moderating effect on the relationship between social media usage and their a) psychological acculturation; b) behavioural acculturation to the host culture.

<<<Insert Figure 1>>>

## **Methodology**

### **Sampling and survey administration**

We chose Chinese students studying in UK as our research sample because the numbers of Chinese students studying abroad are much higher when compared to students from other countries. For example, China is the only country showing a significant increase in student numbers studying in the UK during 2015-2016 (UKCISA, 2017). Whilst non-EU students accounted for 71% of the total international students in UK universities in that year, the number of Chinese students (i.e. 91,215) rated the highest out of all non-EU national students, which was almost the same number as the sum of the rest of the non-EU international students (UKCISA, 2017).

To answer the research questions, the current research used offline surveys in three universities in the UK. These universities were chosen because they have adequate numbers of international students. Three research assistants were employed for data collection. The item measurements were checked for inter-judgement reliability by seven academics in the field of marketing and management. In addition, the questionnaire was examined to find if it

had any ethical problems. We modified the questionnaire in view of the comments on the suitability of the items and clarity of wording of the questionnaire (Lichtenstein et al., 1990). The participants were informed that they could stop answering the questions if they had any reservations about taking part in the study.

A pilot study was conducted to examine the research model for the suitability, validity and freedom from error of measures. A total number of 54 data points were collected including 45 Chinese students and 9 academics. After the validation process, 407 questionnaires were collected using both online and offline media over a two-month period and 39 surveys were rejected due to missing data. Of the 368 participants, 58.4% were female and 41.6% were male. 64.7% of the respondents were in the age range 18 to 23 years, and 27.4% were in the range 24 to 30 years old. The majority of the respondents had been living in the UK for between 1 and 2 years (45.1%), 28.5% between 2 and 5 years, 18.2% less than 1 year and 8.2% from 5 years and above. 72% were studying at undergraduate level, 24.5% at postgraduate level, and 3.5% at doctorate level. The most favourable social media used by the participants were WeChat, Facebook, and QQ. They used the social media for between 2 and 5 hours per day (67.1%) and between 1 and 2 hours per day (20.4%) (See Table 1).

<<<Insert Table 1>>>

### **The survey measures**

The questionnaire was divided into two sections. The first section comprised questions on the demographics of the respondents (such as age and gender). The second section contained measures based on previous research. Social media usage was measured through three constructs: knowledge sharing (Ma & Chan, 2014); interaction and entertainment (Whiting & Williams, 2013). Cultural acculturation was measured via two constructs, psychological

(Tropp et al., 1999) and behavioural (Cleveland et al., 2009) acculturation. The variable 'behavioural' was based on previous conceptualizations (language, social interaction and media consumption), in particular those described by Cleveland et al. (2009) and Cleveland and Laroche (2007). Academic achievement (Park et al., 2014), perceived value (Ryu et al., 2010), and loyalty (Cheung & Lee, 2012) were modified from previous research. In almost all cases, with an exception standing for the 'psychological' variable, all the model's variables were measured using a seven-point Likert-type scale.

### **Data analysis**

A two-stage approach in structural equation modelling (SEM) was employed in this study (Anderson & Gerbing, 1988; Hair et al. 2006). The first stage was testing the measurement model (inner-model) by using AMOS 24 and it was carried out to identify the causal associations between the observed items (variables) and the latent (unobserved) construct. The measurement model was assessed through examining psychometric reliability and validity testing. The inner-model is functional where one dependent construct becomes independent in a subsequent dependence relationship (Tabachnick & Fidell, 2007). The second step is to assess the structural model through a multiple regression technique such as hypothetical relationships based on the sign, magnitude and significance level (Tabachnick & Fidell, 2007).

#### **Step One: Measurement Model Results**

The measurement model employs CFA to evaluate the reliability (Cronbach's  $\alpha$  and composite reliability) and validity (convergent and discriminant) of the model. Sufficient external consistency was achieved by using full measurement models and modification indices to recognise multiple loading items (see Table 2 for details). A measurement of



reliability is used to assess the internal consistency by measuring observed variables/items (Hair et al., 2006) and avoid additional dimensions produced by factor analysis due to garbage items (Churchill, 1979). The internal consistency reliability was assessed using the coefficient alpha method, and not the split-half technique, because Cronbach's alpha is the most widely used internal consistency method that indicates how the different items could measure different aspects of a construct (Churchill, 1979; Hair et al., 2006; Tabachnick & Fidell, 2007). The results show a high degree of reliability (.894 > .70) (De Vaus, 2002; Hair et al., 2006; Nunnally, 1978) (Table 2). The construct-level reliability, also called 'composite reliability', confirmed that items assigned to the same constructs showed a strong relationship with each other. The composite reliability was recommended to be greater than .7 (Hair et al., 2006).

<<<Insert Table 2>>>

This study employed discriminant and convergent validity for validation analysis. Discriminant validity refers to the extent to which measures diverge from other operationalisations whereby the construct is truly distinct from other constructs (Hair et al., 2006; Peter and Churchill, 1986). An alternative test for discriminant validity is to compute the average variance extracted (AVE) for each construct and compare it with the square correlation between them. The results show the average variance extracted (AVE) for each construct ranging from .557 to .898 > .5. greater than the squared correlation estimates (Hair et al., 2006), which supports discriminant validity (Fornell & Larcker, 1981). Additional evidence for discriminant validity is that estimated correlations among factors were less than the recommended value of .92 (Kline, 2005). The homogeneity of the construct was tested

through convergent validity, which was examined on the basis of construct reliabilities (Anderson & Gerbing, 1988). Table 3 illustrates the correlation matrix for the constructs.

<<<Insert Table 3>>>

Potential non-response bias was computed by checking the difference between early and late respondents with respect to the means of all the variables through the Mann-Whitney U-test (Lambert & Harrington, 1990; Malhotra et al., 2006; Podsakoff et al., 2003). According to the proportions of the times at which the survey questionnaires were returned, the first 50 observations were taken as early respondents and the last 50 were taken as late respondents. The results showed that the significance value for any variable was not less than or equal to a .5 probability value, which is insignificant. Therefore, there is no statistically major difference between early and late respondents; hence, non-response bias is not a concern.

We employed Harman's one-factor test to examine the common method bias and a common latent factor proposed by previous studies, using a chi-square difference among the original and fully constrained model (Harman, 1967; Lindell & Whitney, 2001; Malhotra et al., 2006; Podsakoff et al., 2003). The findings recommend that the two models are statistically different and share a variance. The original results of the model were examined without any consideration of method biases. In addition, we have followed Podsakoff et al.'s (2003) four categorization sources of CMVs. Hence, the extent of CMV in our study was mainly due to measurement context effects. Then, the original results of the model were tested without any consideration of method biases, and CFA was suggested. The comparative fit index (CFI) (.923 > .90 indicates good fit) and the root mean square approximation of error (RMSEA) .076 (< .08 indicates acceptable fit) are incremental indexes that evaluate the fit of a model with the null baseline model (Hair et al., 2006). Chi-square is the original fit index

for structural models as it is results directly from the fit function (Hair et al., 1998). The results of the proposed operational model reveal a chi-square of 2332.216 (degrees of freedom,  $df = 747$ ;  $p < .001$ ) and the incremental fit index (IFI), Tucker-Lewis index (TLI), and the normed fit index (NFI) were .923, .916, and .891 respectively. All were greater than the suggested threshold of .90 (Hair et al., 2006), and each criterion of fit indicated that the proposed measurement model's fit was acceptable. In addition, the results show that CMV was not the major source of the variations in the observed items.

#### Step two: structural model evaluation – hypothesis testing

Step two estimates the assumed causal and covariance linear relationship among the exogenous (independent) and endogenous (dependent) latent variables. To measure how well the model fits with its data, the structural model fit was examined for goodness-of-fit. The results showed the chi-square of 2537.337 (degrees of freedom,  $df = 763$ ;  $p < .001$ ), model fit (CFI–Comparative fit index, .915; IFI–Incremental Fit Index, .915; TLI–Tucker-Lewis index, .907; and RMSEA–Root mean square error of approximation, .078) and thus specified the uni-dimensionality of the measures (Anderson & Gerbing, 1988).

The results show that the structural path coefficients and t-values for each construct's relationship and with squared multiple correlations ( $R^2$ ) for each endogenous construct. The H1a and H1b, proposing the direct effect of social media usage on psychological (H1a: estimate = .908,  $t=5.273$ ) and behavioural (H1b: estimate = .875,  $t=5.390$ ) were respectively statistically supported. With regard to research hypothesis H2a, the unexpected result shows the relationship between psychological cultural acculturation and academic achievement (estimate = .084,  $t=1.952$ ,  $p .051$ ) was non-significant (Table 4). The findings suggest that the relationship between behavioural cultural acculturation and academic achievement (H2b) was significant (estimate = 1.383,  $t=6.013$ ). The results illustrate that academic achievement has

impacts on perceived value (estimate =.685, t=11.948) and perceived value influences loyalty (estimate =.359, t=6.482); thus, H3 and H4 were fully supported.

Table 4 illustrates the regression coefficient, which measures the interaction effect of self-identification between social media usage and psychological acculturation (H5a) and behavioural acculturation (H5b). The results show that the effects of social media usage on psychological acculturation (H5a) and behavioural acculturation (H5b) could increase. In other words, the effect of the independent variable on its dependent variable would depend on the level of the moderator variable.

<<<Insert Table 4>>>

## **Discussion and Implications**

The development of social networking has provided different opportunities for intercultural communication. The concept of acculturation has long been an interesting topic to investigate to find how international students, such as Chinese students, live and study in Western countries, e.g. UK (e.g. Ryder, et al., 2000; Kline & Liu, 2005). This study is one of the first studies that explores the role social media, in terms of its content (i.e. knowledge sharing, interaction and entertainment), played on acculturation among Chinese students in UK. The findings of the study suggest that when Chinese students spend their time on social media for knowledge sharing, social interaction and entertainment, they tend to be better acculturated, both psychologically and behaviourally, towards the host culture during their studies in UK universities.

Previous research relating to Chinese overseas students or immigrants find this particular group may have experienced more problems in terms of language and communication, homesickness and loneliness (Ward & Kennedy, 1993). However, with the wide adoption of

social media among young Chinese people, great changes have taken place in terms of communication style and interaction patterns (Pookulangara & Koesler, 2011). The use of social media among Chinese students demonstrates a strong association with the adoption of the host culture in both psychological and behavioural perspectives.

Our research findings reveal that nowadays Chinese students who engage in social media activities demonstrate a high level of confidence in using English in communication and engagement with English entertainment, such as TV shows, movies, books and magazines. Unlike their predecessors who studied in Western countries in the 80s or 90s of the 20th Century, current Chinese students present a high level of English proficiency and culture familiarity. This is probably due to the fact that the new generation of Chinese students are from affluent families who started their English education at a much earlier age. A bilingual environment has become popular in nurseries, primary schools and children's training centres in big cities in China. Additionally, growing up with Harry Potter, Sherlock Holmes and Downton Abbey, young Chinese students have been consuming British culture back home for some time. It is not surprising that the new generation of Chinese are familiar with the British accent, celebrities, values and landmarks via multiple media before they travel to the country.

Given the pervasiveness of social media, students can easily obtain most of their information through online media platforms. Our research reveals that Chinese students are using social media for two to five hours per day. They use WeChat mainly, but Facebook, which people have no access in China, is also heavily used when they are out of China. This result may indicate that Chinese international students use Western social media platforms to get in touch with the local communities, making friends from other countries and learning about common social subjects in the host country. Although some studies have argued that access to media platforms which are highly home culture oriented is more likely to prevent people from full immersion into the host culture (Allison & Emmers-Sommer, 2011),

Chinese students do not appear to have difficulties in cultural adaptation. Using social media to seek advice from peer groups helps Chinese students ease their 'culture shock' as well as find the best way to live in the new host environment. In addition, social media allows Chinese students to maintain communication with people from their home culture, which can ease their acculturation stress and enhance their gratification (Kline & Liu, 2005). Loneliness becomes less of an issue with the use of social media, which proves to be an effective source of social support. This is particularly true for Chinese students because Chinese culture prioritises strong connectedness with family ties (Yeh, 2003).

The results also show that Chinese students' self-identification has a moderating effect on the relationship between their social media usage and acculturation. This is significant as some previous research considers acculturation as a unidimensional process, which emphasises international students' choice between main cultural values (Ryder et al., 2000). When they have a strong attachment to their ethnic identity, they tend to be more unwilling to use host country media or interact with people from the host culture (Hirji, 2006); however, having a strong ethnic identity does not necessarily lead to less acculturation to the host culture. The result of our study further supports Berry's (1980) four-part acculturation framework (i.e. assimilation, integration, separation and marginalisation), which argues for cultural balancing and co-existence of two or more cultures (LaFromboise et al., 1993; Cameron & Lalonde, 1994; Yeh, 2003). The bi-dimensional acculturation mode suggests that individuals can live in two culture groups without compromising their cultural identities. This supports the argument made by Ward and Rana-Deuba (2000) that self-identification with the host country was unrelated to psychological well-being, whilst maintaining and practising home culture identity can provide sojourners with enhanced self-esteem.

Buddington (2002) suggests that international students of colour, or other minorities, appear to combine high academic achievements with less stress if they have strong ethnic

identification and frequently communicate with family or friends from their own ethnic culture. This is in line with previous research which shows that when international students are confident in their own identity and home culture, they tend to be less anxious about being aware of the cultural differences all the time (Buddington, 2002).

The research results demonstrate there is no relationship between Chinese international students in their psychological acculturation towards British culture and their academic achievement, but their academic achievement will be positively affected by their behavioural acculturation. This may be due to the fact that when international students are too eager to acculturate to the host culture from the psychological perspective, they experience greater stress and depression, which causes a decline in both self-esteem and academic performance (Buddington, 2002). Agreeing with values or knowing what to do in the host country has no relation to the academic achievement. However, from the behavioural perspective, English fluency overcomes communication difficulties and contributes to improved social interactions (Salgado de Synder, 1987; Yeh, 2003). Increased social contact with host nationals can lead to better cultural adjustment and satisfaction (Berry et al., 1987). Hence, Chinese international students who are fluent in English and comfortable socialising with people from the different cultures may have a better academic achievement. Using SNSs from the host country may also be associated with better understanding of lecture contents, academic requirements, and confidence make presentations in front of their classmates. However, international students who make a great effort to make extensive host national contact may experience increased psychological distress; hence, we argue that it is the quality rather than quantity of interaction which matters in cultural adjustment (Ward & Kennedy, 1993).

This study also finds a positive relationship between students' academic achievement and the perceived value of their university education. This indicates that Chinese students who

have a pleasant experience in their overseas educational journey are confident about their study in the UK when their academic performance reaches or exceeds their expectation.

Academic achievement has been one of the most important indicators for students, especially for international students, to evaluate their overseas educational experience, that is, the perceived value of the university where they study. High perceived value among Chinese international students who experience UK university education leads to loyalty to their university, which means that they are more willing to tell others about their satisfaction.

### **Implications**

This study sheds light on the experience of international students (Chinese in this case) and helps managers to understand how to develop a positive university-student relationship.

Although some research argues that using social media can somehow prevent immigrants from acculturating to the host culture, our research proves the opposite among Chinese students who use social media to seek ways to help them ‘do things right’ and reduce embarrassment in their new cultural environment (Lee & Tse, 1994). Instead of being afraid that students who hold strong ethnic identities may not be acculturated to the host culture in terms of value, causes, ideas or common practice, the universities should put more investment, effort and support to make students confident and proud about who they are while, at the same time, to providing them with full support in language improvement and creating events for interactions between international students and people from the host culture.

Compared with the traditional marketing communication tools, social media allows universities to engage directly with international students at relatively low cost and high levels of efficiency. Social media itself allows the evolution of new culture where it is no longer shaped by individual values and ideologies but by new rituals (Pookulangara & Koesler, 2011). Hence, universities may also consider engaging with their customers, i.e.



students, more through social media by a) helping international students set up social network groups to tackle their living and studying difficulties upon their arrival in the UK; b) initiating and encouraging conversations for both academic and social activities; c) employing cultural ambassadors to increase the social interactions among students in these groups; and d) organising activities or events to celebrate important festivals in their home culture, e.g. Chinese Spring Festival. As there is also a positive link between students' perceived value and their loyalty to the university, promotions, incentives and interactive activities may be used to encourage existing Chinese students to share their positive experience with prospective students, thus turning loyal customers into passionate advocates.

### **Conclusion and Future Research Direction**

Most of the current acculturation research has been focused on the acculturation process. The bulks of studies have examined the impact of media consumption and language proficiency on cultural acculturation among immigrants, sojourners or expats in the past (e.g. Clément, 1986; Yang et al., 2004). Previous research examined acculturation either from the psychological perspective to tackle the issues relating to acculturation stress or mental health (e.g. Yeh, 2003; Kline & Liu, 2005) to provide marketing recommendations for targeting ethnic immigrant segments (e.g. Peñaloza, 1994; Cleveland et al., 2009). This study contributes to the existing literature by investigating the impact of contemporary social media usage on international students' acculturation, in our case, Chinese students, from both psychological and behavioural perspective. Students who have a higher level of behavioural acculturation tend to have better academic achievement and the 'integration acculturation' strategy adopted by Chinese international students can help facilitate their acculturation process and enhance self-esteem. Chinese international students are more likely to perceive

their UK education experience positively when they achieve their academic goals and then they are willing to share their experience.

The findings of this research are especially helpful for universities hosting a great number of international students and having an international recruitment strategy, particularly targeting Chinese students. The research outcomes highlight the important role of social media usage among international students and the ultimate influence on their perceived university value and loyalty. Given the importance of social media as an antecedent to international students' acculturation in terms of value acceptance, social interactions and language acquisition, managerial applications are recommended. However, the study has several limitations, which could be addressed in future research. While social media usage is confirmed as a predictor of cultural acculturation, this study does not examine the impact of personal factors, such as age, gender, personality, university programme, and years of sojourning (Berry, 1997; Ward & Rana-Deuba, 2000). A multi-level study may be carried out to integrate society-level characteristics in understanding international students' acculturation in the UK cultural environment. Future research should consider including critical external factors from the host society, which may impact greatly on international students' cultural acculturation as well. As suggested by Sam and Berry (2010), research in acculturation should ideally be both longitudinal and comparative.

Hence, we call for future relevant research in the area to consider conducting longitudinal study tracking the changes in the acculturation process. Using only Chinese students is not representative enough and the results cannot be generalised to international students from other ethnic backgrounds. Therefore, we believe a comparative cross-cultural study is necessary to add to the existing knowledge. Finally, with the worldwide increase in intercultural contact and mutual influence (i.e. globalisation), acculturation does not necessarily happen when international students are in the host country; it may have already

been happening before they travel and will still have a long-term impact when they finish their overseas education. It may also be useful for studies to consider comparing the acculturation in terms of before, during and after international students' overseas educational journey.

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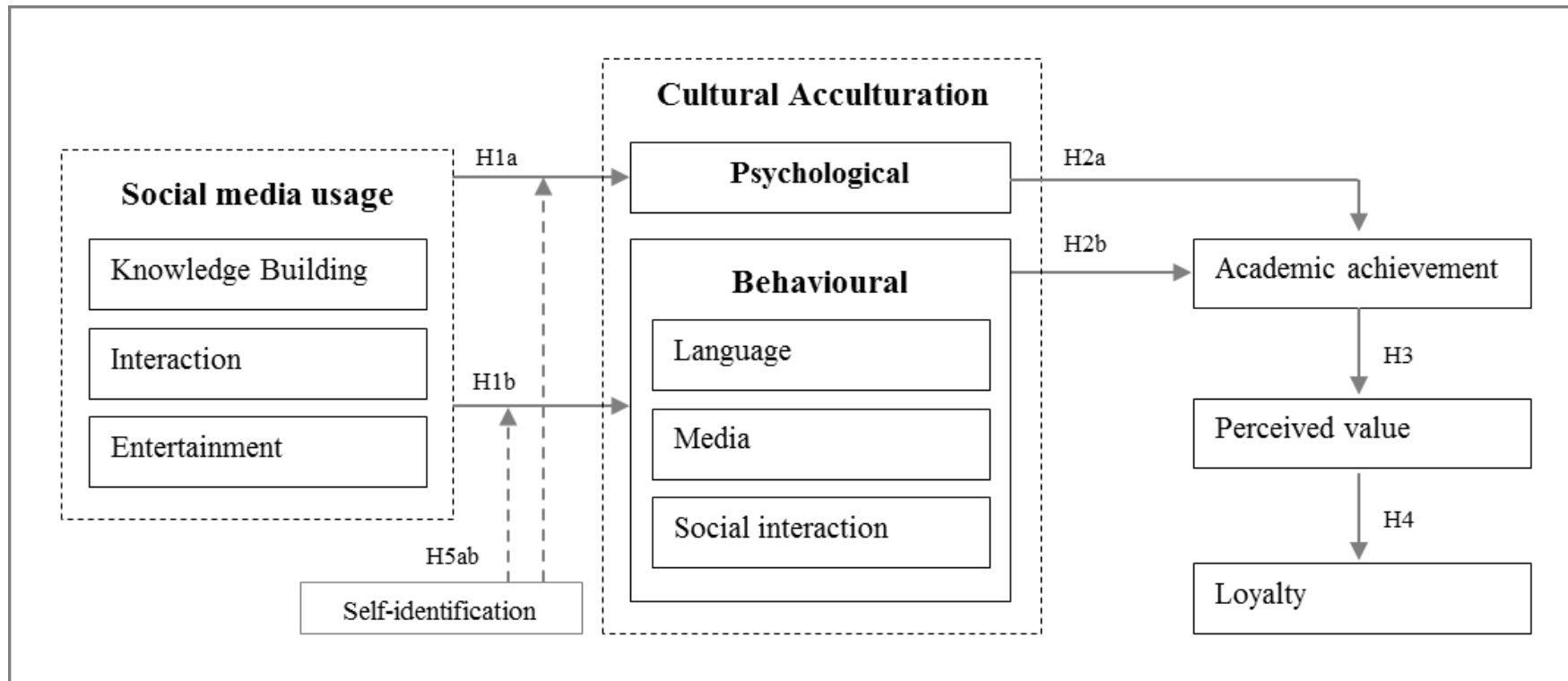


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**Figure 1: The relationship between the three constructs**



**Table 1: Demographic profile (N=368)**

Gender	Frequency	Percent	List of media used	Frequency	Percent
Female	215	58.4	WeChat	194	52.7
Male	153	41.6	Facebook	117	31.8
<b>Age</b>			WhatsApp	7	1.9
18-23	238	64.7	Snapchat	5	1.4
24-30	101	27.4	QQ	29	7.9
31-39	28	7.6	Weibo	16	4.3
40-59	1	.3	<b>Using social media</b>		
<b>Living in UK</b>			Less than 30 min per day	14	3.8
Less than 1 Year	67	18.2	Between 30 min and 1 hrs per day	32	8.7
Between 1 and 2 years	166	45.1	Between 1 to 2 hrs per day	75	20.4
Between 2 and 5 years	105	28.5	Between 2 to 5 hrs per day	247	67.1
Between 5 and 8 years	23	6.3	<b>Education</b>		
Over 8 years	7	1.9	Undergraduate	265	72.0
			Postgraduate	90	24.5
			PhD	13	3.5

**Table 2: The domain and items of construct in extant literature, factor loadings, descriptive statistics and reliabilities**

Items	EFA Final loading	Mean	SD	AVE	CR	Cronbach alpha
<b>Social media usage</b>						
<b>Knowledge sharing (Ma and Chan, 2014)</b>				<b>.863</b>	<b>.724</b>	<b>.945</b>
Definition: is defined as the communication of knowledge from a source in such a way that it is learned and applied by the recipient.						
The advice I receive from other members using the social media has increased my understanding.	.870	5.6467	1.34314			
The advice I received from other members using the social media has increased my knowledge.	.876	5.7120	1.35665			
The advice I receive from other members using the social media allows me to conduct tasks more successfully.	.844	5.7446	1.29975			
<b>Interaction (Whiting and Williams, 2013)</b>				<b>.844</b>	<b>.717</b>	<b>.918</b>
Definition: is defined as using social media to communicate and interact with others.						
I use social media to interact with others (e.g. group of interest).	.809	5.5707	1.39497			
I use social media to interact with my friends.	.866	5.5734	1.42766			
I use social media to interact with my family.	.856	5.4620	1.52854			
<b>Entertainment (Whiting and Williams, 2013)</b>				<b>.713</b>	<b>.808</b>	<b>.964</b>
Definition: is defined as using social media to provide entertainment and enjoyment.						
I use social media as a source of entertainment.	.863	5.5462	1.34226			
I use social media to play games.	.855	5.5489	1.39200			
I use social media to watch videos.	.799	5.5326	1.40998			
I use social media to listen to music.	.864	5.5679	1.32909			
Chatting on social media with my friends is very entertaining.	.838	5.6467	1.36327			
<b>Cultural Acculturation</b>						
<b>Psychological (Tropp et al., 1999)</b>				<b>.898</b>	<b>.900</b>	<b>.981</b>
Definition: Psychological acculturation refers to changes in individuals' psychocultural orientations that develop through involvement and interaction within new cultural systems.						
share most of your beliefs and values	.873	5.1250	1.49317			

have the most in common	.875	5.0870	1.57399
feel the most comfortable	.877	5.0870	1.55132
understand the ideas (ways of thinking)	.873	5.1359	1.49222
are proud to be a part of	.905	5.1821	1.49914
know how things are done	.910	5.1495	1.50818
feel confident that I know how to act	.923	5.1685	1.54810
understand best	.920	5.1060	1.56674
know what is expected in various situations	.918	5.1603	1.50344
know the most about	.908	5.1386	1.56593

**Behavioural (Cleveland et al., 2009)**

Definition: requires measures for the multiple facets, such as, language, media usage, social interaction, food consumption and religion.

**Language** .707 .771 .954

Definition: plays a primary role in the course of cultural maintenance and the acquisition of a second culture.

I feel very comfortable speaking in Chinese with my friends.	.824	5.7908	1.38981
Many of my favourite shows on TV are in English	.865	5.7147	1.47923
I like to read books or magazines in English	.808	5.6467	1.40268
I always watch movies in English	.865	5.7391	1.42473

**Media** .820 .711 .955

Definition: refers to the mass communication to connect of various disparate components of a society and to transmit social heritage.

My favourite actors/actress are from China	.824	5.8179	1.47717
The Internet websites that I browse are mostly in English.	.825	5.9212	1.49177
I enjoy listening and singing English songs much more than songs in other languages.	.811	5.8967	1.49301

**Social interaction** .820 .711 .894

Definition: refers to interaction with fellow ethnic group members and mainstream culture members.

Most of the people that I go to parties are Chinese	.824	5.6576	1.41311
I get together with Chinese very often	.835	5.7147	1.40556
If I have to live with someone, I would rather live with a Chinese	.801	5.6793	1.39302

**Academic achievement (Park et al., 2014)** .557 .749 .948

Definition: is measured by reporting students' confidence in their academic performance.

I feel less intelligent and less capable than others.	.703	5.6005	1.39704			
My academic achievement is much less than I expect. *	.760	5.7935	1.40872			
I am very confident about my study in the UK.	.741	5.6060	1.44270			
My academic performance is better than I expected.	.779	5.7201	1.39888			
<b>Perceived value (Ryu et al., 2010)</b>				<b>.708</b>	<b>.716</b>	<b>.940</b>
Definition: the result of the personal comparison between perceived overall benefits and the perceived sacrifices or costs paid by the customer						
Studying in the UK offers good value for the cost	.836	5.5217	1.48913			
My UK experience is worthy for money	.852	5.5217	1.50007			
Studying in the UK provides me great value comparing to studying somewhere else.	.836	5.4837	1.53604			
<b>Loyalty (Cheung and Lee, 2012)</b>				<b>.750</b>	<b>.722</b>	<b>.904</b>
Definition: is measured by the willingness to share and spread the information about their university experience.						
I frequently share information about my UK study experiences	.878	5.3234	1.46393			
I go out of my way to help others with a problem or question <sup>[1]</sup> about UK study	.902	5.3179	1.49823			
I share information without being asked	.816	5.0978	1.53122			
<b>Self-identification (Cleveland et al., 2009)</b>				<b>.685</b>	<b>.768</b>	<b>.940</b>
Definition: refers to certain or identify with certain ethnic groups who share communal values and attitudes, feelings of belongings and commitment.						
I am very attached to all aspects of the Chinese culture	.808	5.3315	1.40992			
The Chinese culture has had the most positive impact on my life	.810	5.2853	1.43624			
I consider the Chinese culture to be rich and precious	.840	5.2201	1.47935			
The people that I admire the most are mostly Chinese	.851	5.3342	1.44083			



**Table 3: Correlation matrix for the constructs**

	<b>RL</b>	<b>RPV</b>	<b>RA</b>	<b>BS</b>	<b>BM</b>	<b>BL</b>	<b>CAP</b>	<b>SME</b>	<b>SMI</b>	<b>SMK</b>
<b>Loyalty</b>	<b>.866</b>									
<b>Perceived value</b>	.344	<b>.841</b>								
<b>Academic achievement</b>	.329	.602	<b>.746</b>							
<b>Social interaction</b>	.317	.505	.591	<b>.906</b>						
<b>Media</b>	.156	.249	.291	.465	<b>.906</b>					
<b>Language</b>	.127	.202	.236	.377	.186	<b>.841</b>				
<b>Psychological</b>	.306	.296	.313	.389	.192	.156	<b>.948</b>			
<b>Entertainment</b>	.117	.235	.284	.512	.252	.205	.154	<b>.844</b>		
<b>Interaction</b>	.098	.198	.239	.431	.212	.172	.129	.232	<b>.919</b>	
<b>Knowledge sharing</b>	.213	.429	.519	.936	.461	.374	.281	.504	.424	<b>.929</b>

Note: Average variance was extracted from the square roots of average variance extracted.

**Table 4: Results of hypothesis testing**

Hypotheses Path				Estimate	S.E.	C.R.	P			
H1a	Social media usage	->	Psychological cultural acculturation	.908	.172	5.273	***		Accepted	
H1b	Social media usage	->	Behavioural cultural acculturation	.875	.162	5.390	***		Accepted	
H2a	Psychological cultural acculturation		Academic achievement	.084	.043	1.952	.051		Not-Accepted	
H2b	Behavioural cultural acculturation	->	Academic achievement	1.383	.230	6.013	***		Accepted	
H3	Academic achievement	->	Perceived value	.685	.057	11.948	***		Accepted	
H4	Perceived value	->	Loyalty	.359	.055	6.482	***		Accepted	
Moderation effect (Self-identification)					Unstandardized Coefficients	Standardized Coefficients	t	Sig.		
				B	Std. Error	Beta				
H5a	Social media usage	->	Psychological cultural acculturation	(Constant)	2.529	.405		6.251	.000	Accepted
				Social media	.302	.078	.218	3.872	.000	
				Psychological cultural acculturation	.172	.060	.162	2.866	.004	
H5b	Social media usage	->	Behavioural cultural acculturation	(Constant)	1.067	.211		5.065	.000	Accepted
				Social media	.604	.041	.576	14.859	.000	
				Behavioural cultural acculturation	.235	.031	.292	7.522	.000	