

Effects of Social Media Use Intensity on Ethnic Cultural Identity among Chinese International Students in Malaysia

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Abstract: Social media is playing an increasingly important role in the daily lives of international students. A cross-sectional survey of 151 Chinese students studying in Malaysia, aimed to explore the relationship between social media usage intensity and ethnic cultural identity considering the mediating effect of social media use purpose (informational usage, social entertainment usage, and acculturation usage). SPSS and Regression PROCESS macro were applied to analysis the data. The findings show that social media use intensity positively predicts ethnic cultural identity, and also significantly influences informational usage, social entertainment usage, and acculturation usage after controlling demographic variables. In addition, informational usage and acculturation usage positively predict ethnic cultural identity while social entertainment usage is not. Among social media use purposees, only acculturation usage partially mediates the relationship between social media use intensity and ethnic cultural identity. These empirical findings enrich the understanding of the impact of social media usage on ethnic cultural identity in a cross-cultural environment. The limitations and implications of this research are also discussed.

Keywords: Social media use intensity, social media use purpose, ethnic cultural identity, Chinese students, Malaysia

1. Introduction

With the rapid advancement of globalization, studying abroad has become a more common occurrence. In 2017. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), more than 5.3 million international students studied abroad in 2017 (UNESCO, 2019). Between 1978 and 2018, China sent 5.58 million students abroad to study, making it the world's largest source of international students. Malaysia, as an emerging education center in Asia, has also become one of the options for Chinese students seeking to study abroad (Shafaei et al., 2016). According to official figures from Education Malaysia Global Services (EMGS), over 8,000 students from the Chinese mainland came to Malaysia to continue their studies in 2020. In 2021, that figure has risen to 19,000 (EMGS, 2021). Chinese students have surpassed all other nationalities to become Malaysia's largest group of international students (Hirschmann, 2020). However, few studies have been conducted on Chinese international students in Malaysia.

Social media has become an almost unavoidable part of daily life, particularly among college students who are frequent users of the platform (Lau, 2017). Overseas students have greater communication needs than domestic students in a transcultural environment (Hao, 2007). Many academics have demonstrated that social media plays an important role in studying abroad because it allows students to stay in touch with family and friends back home while also making new friends and developing new social interactions in the host country (Park et al., 2014; Shuter, 2012; Rui & Wang, 2015). Individuals can also use social media to learn about the beliefs and norms of the host community, allowing them to become more fully integrated into the host culture (Liu et al., 2018). According to Wilkin et al. (2009), media usage is a major motivator for international students in a foreign environment.

International students grow up and live in a cultural context with specific values and rules that guide their behavior (Gamsakhurdia, 2018). This self-awareness from members of a cultural (or ethnic) group is called cultural identity (Phinney, 2003). However, cultural identity is fluid. It may evolve during transmission and be influenced by various cultural, geographical, social, and political contexts (Hunsinger, 2006). In the process of cross-cultural contact, while

maintaining the original cultural identity, individuals who participate in the local culture may generate a new cultural identity, including the cognition of the host country's language, customs, ethnicity, and other dimensions through online and offline communication. Park (2016) argues that for international students, "culture can be accessed, managed and practiced through social media" (p. 26). One person coexists in virtual space with thousands of other people in the age of social media, and the previous cultural identity theory must be re-examined (Shuter, 2012). However, cross-cultural research on the impact of social media on cultural identity is still lacking (Mao & Qian, 2015). Furthermore, the majority of the limited studies focus on the host cultural identity while ignoring ethnic cultural identity (Li, 2014; Yang, 2018; Dalisay, 2012). It is unclear whether different media contents will have an impact on cultural identity (Li & Tsai, 2015). To fill the gap, this study focuses on the influence of social media usage on ethnic cultural identity and attempts to investigate the mechanism through social media use purpose.

The main goal of this study, which is based on the theoretical and empirical literature, is to investigate the relationship between social media use intensity, social media use purpose, and ethnic cultural identity among Chinese international students in Malaysia. Based on previous research, this study categorizes social media use purposes as informational usage, social entertainment usage, and acculturation usage. This study sought to discover the mediating role of the three types of social media use purpose to explain how social media use intensity affects ethnic cultural identity. At the same time, this study also tries to explore the influence of different social media content on ethnic cultural identity. As a result, this study extends the research on the relationship between social media usage and cultural identity, particularly in a cross-cultural context.

2. Literature Review

2.1 Social Media Use Intensity and Ethnic Cultural Identity

According to media dependence theory, an individual's degree of media dependence determines how frequently he uses the media, and the more frequently the media is used, the greater the influence of the medium on an individual's cognition, emotion, and behavior (Baran & Davis, 2000). In a study based on cultural learning models, the intensity of social media usage, particularly the host social media, influences cultural identification (Ellison et al., 2007). A comparison study of Facebook and RenRen (a Chinese social networking site) based on this research found that increased use of Facebook can improve the host society's language ability and understanding of mainstream culture, as well as aid in the formation of host cultural identity (Li, 2014). Several studies have supported this point of view (e.g., Dalisay, 2012; Yang, 2018). The relationship between use intensity and ethnic cultural identity, on the other hand, has received insufficient attention. Similarly, international students in a foreign country can learn about ethical culture through ethnic social media. For this study, ethnic cultural identity refers to identification with Chinese culture. As a result, the study proposed the following hypothesis:

H1 Social media usage intensity significantly influenced ethnic cultural identity.

2.2 Social Media Use Intensity and Social Media Use Purpose

The use and gratification theory emphasizes that individuals use social media activity based on certain needs and purposes. In a cross-cultural environment, individuals mainly have different purposes to use social media, including information usage, socializing usage, entertainment usage, and acculturation usage (Ma, 2017; Pang, 2018; Yu et al., 2019). Informational purpose refers to users' gathering or dissemination of specific information to solve related problems (Lee & Ma, 2012), such as information about the host country, motherland, and learning materials. Socializing usage mainly refers to contact with the real world, such as maintaining strong and weak relationships (Guo et al., 2014). Entertainment purpose refers to obtaining entertainment and escaping pressure in a foreign country, such as playing games (Lee & Ma, 2012; Luo et al., 2011). Since both socializing usage and entertainment usage focus on personal emotional appreciation, this study integrates the two purposes into social entertainment usage. Acculturation usage primarily refers to individuals using media to improve their life experience in the host country, such as improving their English proficiency and learning local culture knowledge (Yang et al., 2004). Acculturation may be prominent for international students in cross-cultural contexts (Wang & Quan, 2009).

Limited research also suggested that this user initiative can be shaped. For example, Elwick suggested that the student's motivation to learn was influenced by the brain knowledge taught by teachers (Elwick, 2014). An empirical study on Chinese students found that WeChat use intensity affects their motivation to use WeChat, such as enjoyment and identification (Wen et al., 2016). However, this study was conducted in the users' region and did not take place in a multicultural setting. Research is scarce on this topic in the cross-cultural context. The following hypotheses were proposed.

H2 Social media usage intensity significantly influenced information usage.

H3 Social media usage intensity significantly influenced social entertainment usage.

H4 Social media usage intensity significantly influenced acculturation usage.

2.3 Social Media Use Purpose and Ethnic Cultural Identity

Previous research has found that exposure to the local country's mass media contributes to the acceptance of local culture (Hwang & He, 1999; Moon & Park, 2007). More research is needed to see if the result holds for social media. According to Qiu et al. (2013), different social networking sites can foster different cultural value systems through information exchange. People's cultural values are maintained and strengthened through continuous information exchange and social interaction, according to Li and Tsai (2015). Furthermore, social media use for entertainment (Diehi & Prins, 2008) and acculturation (Wang & Sun, 2009) have been shown to influence cultural identity. To be specific, social media provides a convenient way to learn about values, norms, practices, and relevant information about the culture of the host country (Liu et al., 2018). Social media games create virtual communities in which cultural identities can be constructed, explored, and transformed (Diehi & Prins, 2008). However, the research presented above focuses on the impact of social media usage on host cultural identity while ignoring the impact on ethnic cultural identity. This is what this study wants to explore. Social media, on the other hand, has no geographical boundaries (Sawyer & Chen, 2011). International students, for example, do not require face-to-face communication but can learn about what is going on with the people they care about because people all over the world can send and receive messages instantly (Sawyer & Chen, 2011). Thus, students abroad can also use social media to obtain information about their home country and communicate with family and friends in their home country. In light of some of the findings discussed above, the following hypotheses were proposed in this study:

H5 Information usage significantly influenced ethnic cultural identity.

H6 Social entertainment usage significantly influenced ethnic cultural identity.

H7 Acculturation usage significantly influenced ethnic cultural identity.

2.4 The Mediating Role of Social Media Use Purpose

Previous research findings suggest that social media use intensity can predict social media use purpose, which influences cultural identity. In other words, the use purpose mediates the relationship between social media use intensity and cultural identity. The following hypotheses have been advanced:

H8 Information usage mediates the relationship between social media use intensity and ethnic cultural identity.

H9 Social entertainment usage mediates the relationship between social media use intensity and ethnic cultural identity.

H10 Acculturation usage mediates the relationship between social media use intensity and ethnic cultural identity.

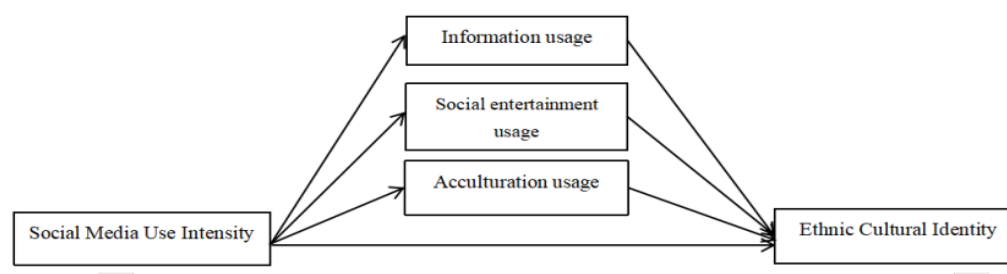


Fig. 1 - The proposed research model.

3. Research Design

3.1 Method

From early April to late April 2022, a cross-sectional survey was conducted. An online survey questionnaire was distributed on Weibo, WeChat, WhatsApp, and other social media platforms popular among Chinese international

students. Collecting data in this manner ensures that participants are social media users, which meets the study's requirements.

3.2 Participants

The study included 151 Chinese international students ($N=151$) from a large public university in Malaysia. There were 97 women (64.2 percent) and 54 men in the sample (35.8 percent). The majority of the participants were between the ages of 18 and 22. About half of the participants ($N=76$) had lived in Malaysia for six months to a year, with only four staying for more than four years. The majority of the participants ($N=91$) were undergraduate students.

3.3 Measurement of the Variables

3.3.1 Social Media Use Intensity

The measurement of the social media use intensity is mainly adapted from Ellison et al. (2007) and Ni et al. (2020). The first five questions were adapted from Ellison et al. (2007), which has been verified in several studies (Jiang & Bruijn, 2014; Phua & Jin, 2011; Wang et al., 2019). In the current study, Facebook was replaced with social media. The other four questions were adapted from Ni et al. (2020). Two elements were deleted due to the low factor loading. Finally, a 5-point Likert-response scale included 7- items that were adopted, participants were asked to "Social media is part of my everyday activity", where 1 meant "Strongly Disagree" and 5 meant "Strongly Agree". In the current research, Cronbach's alpha was 0.878.

3.3.2 Social Media Use Purpose

After deleting some items with factor loading coefficients lower than 0.5, information usage including 5 items was adapted from Hughes et al. (2012) and Wang & Quan (2013). Cronbach's alpha for the scale was 0.766. Social entertainment usage was adapted from Hughes et al. (2012) and Whiting & Williams (2013). Cronbach's alpha for the 5-item scale was 0.845. Acculturation usage was adapted from Yang et al. (2004). Cronbach's alpha for the 3-item scale was 0.826. The three scales used a 5-point Likert-response scale, where 1 meant "Strongly Disagree" and 5 meant "Strongly Agree".

3.3.3 Ethnic Cultural Identity

Ethnic cultural identity was measured by a 5-point Likert-response scale that included 9- items. The original scale was adapted from Ryder et al. (2000) and Mezzich et al. (2009), which was modified based on Cortes et al. (1994). It measured participants' language, preferred foods, holiday celebrations, and social relationships. Considering the purpose of this study and the consistency with other scales in the current study, this study made some minor modifications to the scale. For example, four questions were dropped from the questionnaire. Such as "How important would it be to you for your children to have (ethnic minority) friends". The main reason is that the participants were university students, and the education of the next generation mentioned in the above questions does not conform to their status. For the current research, ethnic cultural identity refers to Chinese cultural identity, the options range from 1(Strongly Disagree) to 5 (Strongly Agree). The Cronbach's alpha of the scale was 0.874.

3.3.4 Personal Information

Personal information about international students, such as gender, sex, age, English proficiency, and length of stay in Malaysia, were collected as the control variables. English proficiency was measured primarily by self-reported English language ability in writing, speaking, reading, listening, understanding, and conversation on a 5-point scale (1=very poor, 5=very good). Cronbach's alpha for the 6-item scale was 0.886. In addition, participants' social media usage patterns were investigated, such as time spent, frequency of use, and the number of social media friends.

3.4 Analytical Strategy

SPSS 26 will be the primary tool for quantitative data analysis in this study. Before formally analyzing the data, it is necessary to perform data screening and transformation, such as the treatment of outliers and missing values. Furthermore, the questionnaire's validity and reliability should be evaluated. Following that, descriptive statistical analysis was used to describe the individuals' demographic characteristics. Before hypothesis testing, the correlation between variables is examined. To demonstrate the relationship between variables, regression analysis was used. PROCESS was suggested by Haye (2013) was used to test the mediating hypothesis.

3.5 Results

3.5.1 Reliability and Validity of the Instrument

The results (Table 1) showed that all the factor loadings ≥ 0.6 , the AVE of all variables was greater than 0.5, the CR was greater than 0.8, and Cronbach's α was greater than 0.7. The square root of AVE was greater than the correlation coefficient between variables, indicating that the discriminate validity meets the requirement.

Table 1 - Items loadings, composite reliability, average variance extracted, and cronbach's α (N = 151).

Variables	Factors			AVE	CR	Cronbach's α
Social Media Use Intensity	Social media is part of my everyday activity.		.784	0.581	.906	.878
	I am proud to tell people that I am on social media.		.708			
	I feel out of touch when I have not logged onto social media for a while.		.814			
	I will be upset if a social media platform shuts down		.735			
	I feel like I'm a part of a social media community.		.783			
	I browse social media whenever I have the time.		.796			
	Even if it is late, I will take a look at social media before I sleep.		.709			
Social Media Use Purpose	Information usage	I use social media to find information.	.813	.526	.846	.766
		I use social media to get information for free.	.766			
		I use social media to keep abreast of current events in China.	.731			
		I use social media to keep abreast of current events in Malaysia.	.652			
		I use social media to find information related to class assignments.	.650			
	Social entertainment usage	I use social media for chatting.	.877	.622	.891	.845
		I use social media to relax	.831			
		I use social media as a source of entertainment.	.793			
		I use social media to pass the time.	.739			
		I use social media because I want to communicate with	.689			

Variables	Factors			AVE	CR	Cronbach's α
		families and friends in China.				
	Acculturation usage	I use social media to learn about Malaysian culture.	.866	.744	.897	.826
		I use social media to improve my English or my Malay language.	.864			
		I use social media to help me adjust to Malaysian society.	.857			
Ethnic Cultural Identity	I enjoy Chinese jokes and humor in Malaysia.		.761	.505	.902	.874
	I need to maintain or develop Chinese cultural practices in Malaysia.		.739			
	I like to eat Chinese food in Malaysia.		.739			
	I like to celebrate holidays in the Chinese way in Malaysia.		.737			
	I enjoy engaging in social activities with Chinese people in Malaysia.		.737			
	I enjoy Chinese cultural entertainment (e.g., movies, music) in Malaysia.		.687			
	I enjoy speaking Chinese in Malaysia.		.676			
	I believe in Chinese values.		.658			
	I am interested in having Chinese friends in Malaysia.		.653			

Table 2 - Descriptive statistics, square root of AVE, and correlation matrix (N = 151).

Variables	Mean	SD	1	2	3	4	5
Social media use intensity	3.70	0.720	.762				
Information usage	3.91	0.719	.672**	.725			
Acculturation usage	3.47	0.812	.422**	.499**	.863		
Social entertainment usage	3.85	0.809	.718**	.677**	.512**	.789	
Ethnic cultural identity	3.72	0.678	.339**	.433**	.514**	.342**	.711

Note: (1)* $p < 0.05$; ** $p < 0.01$; (2) Square roots of AVE for every construct are bold in the table. (3) Off-diagonal numbers are the correlations among variables.

Table 3 - Descriptive statistics of participants (N = 151).

Variables		N	Percentage
Gender	Female	97	64.24
	Male	54	35.76
Marital status	Married	26	17.22
	Not married	117	77.48
	Others	1	0.66
	Separated/Divorced	1	0.66
	Widowed	6	3.97
Age	18-22	83	54.96
	23-27	31	20.5
	28-32	21	13.9
	More than 32	16	15.2
Education level	Bachelor degree	91	60.26
	Doctoral degree	36	23.84
	Master degree	23	15.23
	Post-doctoral degree	1	0.66
Length of residence in Malaysia	6 months to 1 year	76	50.3
	1-2 years	36	23.8
	2-4 years	35	23.1
	More than 4 years	4	2.6
The most frequently used social media	Facebook	5	3.31
	Facebook Messenger	1	0.66
	Instagram	4	2.65
	LinkedIn	1	0.66
	QQ	2	1.32
	Sina Weibo	2	1.32
	TikTok (Douyin)	1	0.66
	Twitter	2	1.32
	WeChat	74	49.01
	WhatsApp	57	37.75
	YouTube	2	1.32

Variables		N	Percentage
The frequency of using social media per day	1-2times	13	8.6
	2-4times	12	7.9
	4-6times	21	13.9
	6-8times	10	6.6
	More than 8 times	42	27.8
	On every notification beep	49	32.4
	not everyday	4	2.65
Time spent on social media per day	Less than 1 hour	15	0.66
	1-2 hours	18	11.92
	2-4 hours	52	5.96
	4-6 hours	30	1.99
	6-8 hours	15	1.99
	More than 8 hours	21	0.66
Number of friends on social media	101-150	13	8.61
	151-200	19	12.58
	201-250	16	10.60
	251-300	17	11.26
	Less than 50	26	17.22
	More than 300	60	39.74
Duration of social media usage	Less than 1 year	7	4.64
	1-2 years	12	7.95
	2-4 years	27	3.31
	4-6 years	21	3.97
	6-8 years	20	1.32
	More than 8 years	64	42.38

Data can be considered roughly normally distributed if the absolute values of skewness and kurtosis are less than one, according to Huck (2012). The skewness of the variables in this study ranged from -0.426 to -0.088 and kurtosis ranged from -0.693 to 0.024, indicating that the data conform to normal distribution.

3.5.2 Bivariate Correlation among Variables

Table 2 showed the bivariate correlations between social media use intensity, information usage, social entertainment usage, and ethnic cultural identity. Social media use intensity was significantly associated with information usage ($r = .672, p < .001$), social entertainment usage ($r = .718, p < .001$), acculturation usage ($r = .422, p < .001$), and ethnic cultural identity ($r = .339, p < .001$). Information usage, social entertainment usage, and acculturation usage were all significantly associated with high level ethnic cultural identity ($r = .433, p < .001$; $r = .342, p < .001$; $r = .514, p < .001$ respectively).

3.5.3 Hierarchical Regression Analyses

Tolerance and Variance Inflation Factor (VIF) was used to assess collinearity between variables before the regression analysis. The results showed that all tolerance values were greater than .30 and the maximum VIF value was less than 3, indicating that multicollinearity was not a concern in the current study (Dugard et al., 2010).

Social Media Use Intensity and Social Media Use Purpose

Regression analysis was used to explore the predictive effects of social media use intensity on information usage, social entertainment usage, and acculturation usage. Specifically, three regression models were established with the social media use intensity as the independent variable and the three types of use purpose as dependent variables respectively. Table 4, Table 5, and Table 6 revealed that social media use intensity significantly predicted information usage, social entertainment usage, and acculturation usage. H2, H3, and H4 were supported.

Table 4 - The regression model of social media use intensity predicting information usage (N=151).

Predictors	Dependent variable: information usage ($R^2=.417$ $F=106.8$ $p<.01$)		
	β	t	P
Social media use intensity	.578	10.334	.000***

*** $p < .01$.

Table 5 - The regression model of social media use intensity predicting acculturation usage (N=151).

Predictors	Dependent variable: acculturation usage ($R^2=.194$ $F=35.96$ $p<.01$)		
	β	t	P
Social media use intensity	.52	5.60	.000***

*** $p < .001$.

Table 6 - The regression model of social media use intensity predicting social entertainment usage (N=151).

Predictors	Dependent variable: social entertainment usage ($R^2=.492$ $F=1444$ $p<.01$)		
	β	t	P
Social media use intensity	.739	12.02	.000***

*** $p < .001$.

Social Media Use Intensity, Use Purpose, and Ethnic Cultural Identity

To demonstrate the predicting values of personal information, social media use intensity, and social media use purpose on ethnic cultural identity, hierarchical multiple regression was performed. To be specific, three blocks of the regression model were developed. The first block was demographic variables. Social media use intensity entered into the second block and three types of social media use purpose entered into the third block. Results showed that all of the demographic variables explained a 29.3% variance in ethnic cultural identity and the regression model was statistically significant ($R^2=.293$, $F_{(6, 151)}=2.231$, $p<.05$). However, only English proficiency significantly predicted ethnic cultural identity, suggesting that participants with higher English proficiency had a higher ethnic cultural identity. English proficiency also contributed to the model in the second and third block. The inclusion of social media use intensity in the second block of the regression model enhanced the model to explain a 48.6% variance in ethnic cultural identity, which was statistically significant ($R^2=.486$, $F_{(7, 151)}=6.26$, $p<.001$). H1 was supported. After controlling for the predictive effect of demographic variables, the social media use intensity contributed an additional statistically significant variance of 15% (R -square change=.150, F change $_{(1,150)}=27.92$, $P<.001$) in ethnic cultural identity, indicating that participants with higher intensity of social media use had a higher ethnic cultural identity. When controlling the effect of demographic variables and social media use intensity, three types of use purpose explained an additional 16.1 percent of variance

(R-square change=.161, F change_(3, 149) = 12.39, $p < .001$) in ethnic cultural identity. For the use purpose variable, social entertainment usage was not significantly contributed to the regression equation of the third block, and H6 was not supported. Participants who use social media for information and acculturation could enhance their identification with ethnic cultural identity. H5 and H7 were supported.

Table 7 - Hierarchical regression analysis for predictors of ethnic cultural identity.

Predictors	B	SEB	Beta	Model			
				R ²	Adjusted R ²	R ²	F
Block 1				.293	.086		2.231*
Gender	-.137	.103	-.097				
Marital status	-.064	.084	-.045				
Age	.070	.011	.108				
Education level	-.033	.092	-.036				
Length of residence in Malaysia	-.016	.004	-.021				
English proficiency	.290	.089	.272***				
Block 2				.486	.236	.150	27.92***
Gender	-.112	.107	-.079				
Marital status	-.183	.123	-.128				
Age	.052	.066	.080				
Education level	-.003	.079	.079				
Length of residence in Malaysia	-.021	.060	.060				
English proficiency	.322	.082	.312***				
Social media use intensity	.314	.071	.397***				
Block 3				.630	.397	.161	12.39***
Gender	-.034	.097	-.024				
Marital status	-.216	.111	-.151				
Age	.049	.059	.074				
Education level	.102	.073	.114				
Length of residence in Malaysia	-.042	.054	-.055				
English proficiency	.214	.077	.201*				
Social media use intensity	.110	.099	.116				
Information usage	.280	.104	.272*				
Social entertainment usage	-.076	.090	-.090				
Acculturation usage	.298	.063	.393***				

Note: Personal information variables were coded as dummy variables.

* $p < .05$; ** $p < .01$; *** $p < .001$.

Mediating Effect of Use Purpose

Four conditions need to be satisfied for the existence of a mediating effect. First, the independent variable must predict the dependent variable. Second, the independent variable must predict the mediating variable. Third, the mediating variable must predict the dependent variable. Finally, when the mediating variable is removed from the model, the significant predictive effect of the independent variable on the dependent variable is reduced (partial mediation), or eliminated (full mediation) (Gebregergis et al., 2020). Regression PROCESS macro suggested by Hayes (2013) was conducted to test the mediating effect. To analyze the statistical significance of indirect effects, bootstrap estimation with 5000 samples was used, where the 95% confidence interval does not include zero indicating significant indirect effects. For the current research, three types of social media use purposes were entered into the model to build a parallel mediating effect analysis. According to the above regression analysis, only English proficiency has an impact on the cultural identity on ethnic cultural identity. Thus, English proficiency was controlled in the analysis (Figure 2). According to the results, the independent variable of social media use intensity predicted both the mediating variable of information usage ($\beta=.621$, $p<.001$), acculturation usage ($\beta=.547$, $p<.001$), social entertainment usage ($\beta=.810$, $p<.001$) and the dependent variable of ethnic cultural identity ($\beta=.342$, $p<.001$). Besides, social entertainment usage did not predict ethnic cultural identity ($\beta=-.54$, $p>0.05$). Thus, the mediating analysis for social entertainment usage was ended. H9 is not supported. Information usage and acculturation usage both predicted ethnic cultural identity. When considering the mediating effect of information usage, the 95% bootstrap confidence interval of the indirect effect interval includes zero ($b=.152$, 95% CI $[-.024$ to $.340]$), indicating that social media intensity on ethnic cultural identity was not mediated by information usage. Thus, H8 is not supported. As for acculturation usage, the 95% bootstrap confidence interval of the indirect effect does not include zero, indicating that acculturation usage mediated the relationship between social media use intensity and ethnic cultural identity ($b=.159$, 95% CI $[-.057$ to $.382]$). Thus, only acculturation usage mediates the relationship between social media use intensity and ethnic cultural identity. When only acculturation usage is entered into the model as the mediating variable (Figure 3), English proficiency is also entered into the model as the control variable, and the 95% confidence interval of indirect effect and direct effect are both above zero ($b=.178$, 95% CI $[-.074$ to $.356]$ and $b=.165$, 95% CI $[-.016$ to $.313]$, respectively), indicating that acculturation usage partially mediating the relationship. The total effect is 0.342, the indirect effect is $0.177(0.547 \times 0.324)$. Indirect effects account for 51.8 percent of the total effect.

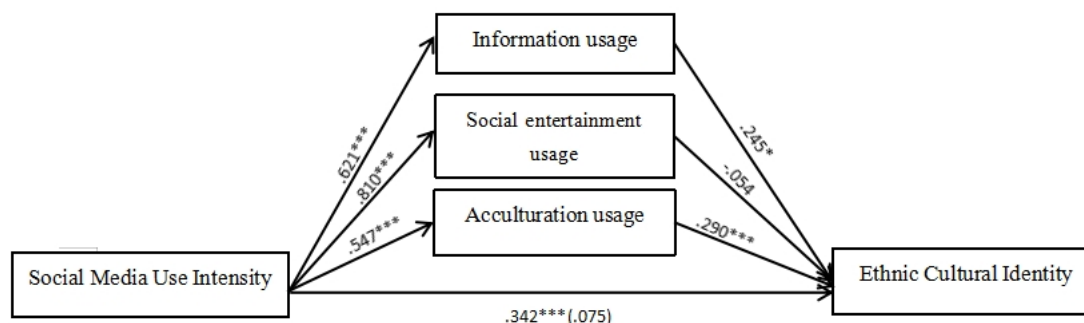


Fig. 2 - Parallel Mediating effect models of the impact of social media use intensity on ethnic cultural identity.

Note: Standardized coefficients are displayed in the path model. $N = 151$. The numbers in parentheses represent the direct effect. * $p < .05$; ** $p < .01$; *** $p < .001$.

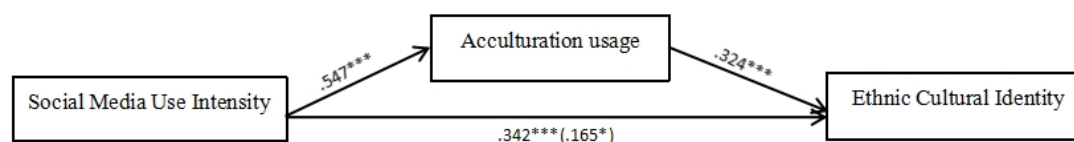


Fig. 3 - Mediating effect models of acculturation usage on the relationship between social media use intensity and ethnic cultural identity.

Note: Standardized coefficients are displayed in the path model. $N = 151$. The numbers in parentheses represent the direct effect. * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 8 - Summary of the hypothesis testing results.

Hypothesis	Results
H1: Social media use intensity → Ethnic cultural identity	Supported
H2: Social media use intensity → Information usage	Supported
H3: Social media use intensity → Social entertainment usage	Supported
H4: Social media use intensity → Acculturation usage	Supported
H5: Information usage → Ethnic cultural identity	Supported
H6: Social entertainment Usage → Ethnic cultural identity	Not Supported
H7: Acculturation usage → Ethnic cultural identity	Supported
H8: Social media use intensity → Information usage → Ethnic cultural identity	Not Supported
H9: Social media use intensity → Social entertainment usage → Ethnic cultural identity	Not Supported
H10: Social media use intensity → Acculturation usage → Ethnic cultural identity	Supported

4. Discussion

The study is to explore the relationship between social media use intensity and ethnic cultural identity. The results showed that seven out of ten hypotheses were supported.

First, the results of this study are in line with the existing literature that social media use intensity has an impact on cultural identity. However, while previous studies have centered on the relationship between social media usage and host cultural identity, this study finds that Chinese students' social media usage in Malaysia positively affects Chinese cultural identity. Specifically, the greater the dependence of Chinese students on social media, the more it helps to enhance Chinese cultural identity. This is because social media usage is with no obvious geographical limits. As found in this study, Wechat was the most frequently used social media by participants in Malaysia. The idea that ethnic social media usage is beneficial to promoting ethnic cultural identity has been proved by some studies (Li & Liu, 2017; Li & Tsai, 2015; Yin, 2015).

This study demonstrates once again that social media use purpose use can be shaped (Elwick, 2014; Wen et al., 2016). In the study, social media use purposes were categorized into informational usage, social entertainment usage, and acculturation usage. Specifically, social media use intensity predicted three different use purposes, and the more engagement with social media, the more Chinese international students were motivated to use social media to obtain information, and satisfy social entertainment and acculturation needs.

This study also responds to the researchers' call to investigate the impact of various social media use content on cultural identity (Li & Tsai, 2015). It is worth noting that not only does social media use intensity affect ethnic cultural identity, but the content of social media also affects ethnic cultural identity. Contrary to predictions, social entertainment use does not predict ethnic cultural identity. One possible explanation is that social entertainment is mostly used to kill time and has little to do with ethnic cultural identity. As predicted, information usage contributes to ethnic cultural identity supports the point that obtaining information through social media strengthens the connection with home culture, which enhances ethnic cultural identity (Qiu et al., 2013; Li & Tsai, 2015).

Interestingly, the study finds that acculturation usage helps to enhance ethnic cultural identity. In other words, while learning about the host country's culture, international students also strengthen their ethnic cultural identity. The result supports the view that even if international students strengthen their identification with the host culture, they will not necessarily lose their identification with the ethnic culture (Li & Tsai, 2015). As mentioned by an earlier scholar, multi-culture promotes ethnic cultural identity because the contact of different cultures helps individuals to be aware of being in an ethnic group and gives rise to the identification with their own ethnic culture (Berry, 2004). In the age of social media, multicultural communication is increasingly common. A study of Chinese students in New Zealand found that the use frequency of a Chinese social media (Weibo) is positively correlated with the identification with New

Zealand's culture (Du & Lin, 2019). Thus, in the era of rapid globalization of media and culture, the resources for the formation of cultural identity are becoming more and more diversified, and the research on cultural identity should be paid more attention to (Ibold, 2010). The results of parallel mediation analysis indicate that only acculturation usage plays a partial mediating role to explain how social media use intensity influences ethnic cultural identity.

5. Limitations and Implications

There are several major limitations to this study that must be addressed. To begin, this study chose Chinese mainland students from a large public university as participants using purposive sampling. It is difficult to generalize the findings to all Chinese students studying in Malaysia. Second, the research merely focuses on a Malaysian setting, making it difficult to represent Chinese international students in other Asian countries. Similarly, because the study only includes Chinese students, it cannot represent international students from other countries in Malaysia. Furthermore, the sample is demographically homogeneous. Sixty percent of those who took part were undergraduates, with more than half aged 18 to 22. Furthermore, half of the participants lived in Malaysia for less than a year. In the future, a larger and more representative sample will need to be studied. Second, shortcomings in research methods must be identified. The current study used a cross-sectional research design and only survey the research subjects at one point in time. The cross-sectional research method makes determining causality between variables difficulty (Setia, 2016).

There are two main implications of this study. First, the study demonstrated that the use of social media can help international students improve their ethnic cultural identities. It has been demonstrated that ethnic cultural identity is beneficial for the well-being of international students in a cross-cultural setting (Smith & Silva, 2011; Yoon et al., 2012). Therefore, Chinese international students can make good use of social media to enhance their understanding of ethnic culture and gain a better cross-cultural experience. Moreover, the results showed that overseas students can use social media to improve their home country's cultural identity even in a foreign country.

Second, the main driver of new market participants in higher education internationalization is the financial, cultural, and economic benefits that international students bring to the host country (Terry, 2011; Yu et al., 2019). Given the large number of Chinese students studying in Malaysia, this research will assist them in having a positive experience while also contributing to the economic, cultural and educational development of Malaysia.

6. Conclusion

The purpose of this study is to investigate the relationship between social media use intensity and ethnic cultural identity. Chinese students studying in Malaysia served as research subjects. Cross-cultural scholars have long been interested in Chinese students, but the group has received little attention in the Asian context, particularly in Malaysia, which has attracted a large number of Chinese students in recent years. Although Chinese students study in Malaysia, they can enhance their Chinese cultural identity by using social media. Furthermore, both social media use intensity and social media content have an impact on the home country's cultural identity. Cultural identity theory requires more investigation in the digital age (Shuter, 2012).

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Conflict of Interest

The authors declare no conflicts of interest.

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