

Association for Information Systems AIS Electronic Library (AISeL)

WHICEB 2017 Proceedings

Wuhan International Conference on e-Business

Summer 5-26-2017

Social Media Usage, Self-efficacy and Cultural Intelligence: A Longitudinal Empirical Research in China

Shangui Hu

School of Business, Anhui University of Technology, Ma'anshan, 243002, China; School of Management, University of Science and Technology of China, Hefei, 230026, China, stanleyhff@hotmail.com

Jibao Gu

School of Management, University of Science and Technology of China, Hefei, 230026, China, jibao@ustc.edu.cn

Shulin Zhang

School of Management, University of Science and Technology of China, Hefei, 230026, China, jibao@ustc.edu.cn

Follow this and additional works at: <http://aisel.aisnet.org/whiceb2017>

Recommended Citation

Hu, Shangui; Gu, Jibao; and Zhang, Shulin, "Social Media Usage, Self-efficacy and Cultural Intelligence: A Longitudinal Empirical Research in China" (2017). *WHICEB 2017 Proceedings*. 40.
<http://aisel.aisnet.org/whiceb2017/40>

This material is brought to you by the Wuhan International Conference on e-Business at AIS Electronic Library (AISeL). It has been accepted for inclusion in WHICEB 2017 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Social Media Usage, Self-efficacy and Cultural Intelligence: A Longitudinal Empirical Research in China

Shangui Hu^{a,b,*}, Jibao Gu^{b,†}, Shulin Zhang^b

^a School of Business, Anhui University of Technology, Ma'anshan, 243002, China;

^b School of Management, University of Science and Technology of China, Hefei, 230026, China

Abstract: Social media have become ubiquitous in our lives. To meet with the calls to examine social media usage in cross-cultural contexts, the study conducted a longitudinal survey to explore bilateral relationships between social media usage, self-efficacy and cultural intelligence. Based on Social Cognitive Theory, findings indicate that both informational and socializing usage of social media increase individual's self-efficacy whereby individual cultural intelligence is developed. In addition, cultural intelligence effectively enhances increasing of individual's self-efficacy. Implications and limitations are further discussed.

Keywords: Social media usage, self-efficacy, cultural intelligence, cross-cultural context

1. INTRODUCTION

Social media (e.g. Facebook, Twitter) have become ubiquitous and extremely important platforms to facilitate individuals with social relationships building and information gathering or spreading (Luchman et al., 2014; Smith, 2014; Correa et al., 2010). Accordingly, scholars have made tremendous efforts on exploring the effects of social media usage but reached incongruent conclusions and even competing perspectives about the functions of social media usage (Mattanah et al., 2010; Ellison et al., 2007; Kirschner and Karpinsk, 2010; Wohn and LaRose, 2014). Scholars have proposed that the inconsistent findings of prior research are partly due to monolithic research approach and neglect of particular context (Argyris and Xu, 2016; Leonardi, 2014). Thereby we attempt to explore more accurate understandings about social media usage in different contexts (Kim et al., 2011; Sendurur et al., 2015; Ma et al., 2014) since social media usage is regarded as a multifaceted phenomenon (Kirschner and Karpinski, 2010).

A growing stream of research is interested in exploring the relationships between social media usage and cultures. Most of the related work has focused on how individuals from various cultural backgrounds follow their cultural mindsets to use social media for specific purposes. For example, Li and Tsai (2015) have found that English social media usage has helped Hispanics in U.S to acculturate into the mainstream American culture. This indicates that social media usage facilitates the development of individual cultural intelligence. First advanced by Earley and Ang (2003), cultural intelligence has been conceptualized as individual's key capability to manage situations effectively characterized by cultural diversity. However, little literature has investigated the relationships between social media usage and cultural intelligence and there is an urgent need to examine whether and how they are connected in cross-cultural settings.

When individuals are exposed to foreign environments, they are supposed to encounter various stressors (Khawaja and Smith, 2011; Townsend and Poh, 2008). Scholars have argued that self-efficacy really matters in cultural milieu (Bandura, 1995; Wright et al., 1995) and acts as an important antecedent for the development of cultural intelligence (MacNab and Worthley, 2012). And this needs to be further examined out of western countries. In addition, Social Cognitive Theory (Bandura, 2001) indicates that the relationship between

* Corresponding authors at: School of Business, Anhui University of Technology, Ma'anshan, 243002, China; Email: stanleyhff@hotmail.com; School of Management, University of Science and Technology of China, Hefei, 230026, China; Email: jibao@ustc.edu.cn.

self-efficacy and cultural intelligence should be bilateral, not one direction. To the best of our knowledge, no prior research has elaborated on the two-direction relationship between these two key elements contributing to success in overseas experience.

To sum up, the research aims to address those gaps by drawing upon Social Cognitive Theory to empirically explore relationships between social media usage, self-efficacy and cultural intelligence and examining whether there is a two-way direction between self-efficacy and cultural intelligence.

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

2.1 Social cognitive theory and self-efficacy

Advanced by Bandura (1986), Social Cognitive Theory (SCT) posits the reciprocal causal relationships between individuals, behaviors and environment. We applied SCT as the basis of research framework in this study because the theory unveils the underlying mechanism how individual behaviors, internal dispositions and environment factors all work as interacting determinants and influence each other bidirectionally (Chen and Lin, 2013; Bandura, 2001). And this fits well with the complex processes how individuals use social media to increase self-efficacy and cultural intelligence in cross-cultural settings.

In other words, within SCT, individuals are shaped by their media attendance for direct and observational experiences (Bandura, 1986, 2001) wherein individuals learn to self-organize, self-regulate, self-reflect and behave proactively. In cross-cultural context, those direct personal and observed various experiences of searching for information and socializing through social media attendance influence individual cognitive process and thereby initiate behaviors of developing cultural intelligence to cope with cultural related issues effectively. Based on the proposition of bi-directional relationships between individual, behavioral and environmental variables, SCT indicates that developed cultural intelligence enables individuals to better master personal and vicarious experiences through social media attendance. This devotes to processing and transforming the acquisition of information and knowledge into improving cognitive models and schema for the increase of self-efficacy (Phipps et al., 2013), which feeds back to the development of cultural intelligence. Recent research has also discovered that SCT is a more desirable theoretical framework to support social media usage than other theories by explaining more variance increase (LaRose & Eastin, 2004; Bandura, 2001).

As a dominant mechanism of SCT, self-efficacy is defined as “the conviction one can engage in behavior that will produce the desired outcome” (Bandura, 1977, p. 193). Bandura (1977) has established that the development of self-efficacy is associated with four resources: (1) Mastery experience. The individual has ever successfully participated in an experience before. (2) Vicarious experience. The individual has ever observed others to be successfully engaged in an experience related to the task he or she is going to be involved in. (3) Verbal or social persuasion. Verbal or social encouragement is related to the task to be performed. (4) Physiological state. The individual is in good physical and psychological situations. It is commonly acknowledged that self-efficacy is an important construct to elaborate on individual’s psychological, behavioral and capability changes (Achterkamp et al., 2015; Hawkins et al., 2008).

Recent research has indicated the relationships between social media usage and self-efficacy (Hocevar et al., 2014; Huang, 2016). Furthermore, scholars have discovered that self-efficacy is related to cultural and psychological adjustment in a foreign environment (Harrison et al., 1996; Fenner and Selmer, 2008). This indicates that self-efficacy plays influential roles in cross-cultural settings. However, there is scarcity of research, especially in non-western countries, further examining the relationship between social media usage, self-efficacy and cultural intelligence in cross-cultural environment (Rehg et al., 2012).

2.2 Social media usage

Defined as “a group of Internet-based applications that build on the ideological and technological foundations

of Web 2.0, and allow the creation and exchange of user generated content” (Kaplan and Haenlein, 2010, p. 61), social media have integrated into people’s daily lives and exert strong impacts as a searching tool and social interaction mechanism (Luchman et al., 2014). The platform is crucial because international expatriates have to suffer a lot from unexpected risks, cultural shocks and acculturation stress (Smith and Khawaja, 2011; Zhang and Goodson, 2011) when they are far away from their families and exposed to an uncertain and foreign environment. Although scholars have also explored the implications or outcomes aroused by social media usage, incongruent findings have been reached with both positive and negative effects of using social media (Mattanah et al., 2010; Ellison et al., 2007; Ainin et al., 2015; Wohn and LaRose, 2014). Furthermore there is relatively little research work associated with social media usage among minority people (Ma et al., 2014). Therefore there is much necessity to further examine the functions of social media usage on international expatriates and how it would perform on minority people who are living in cross-cultural settings.

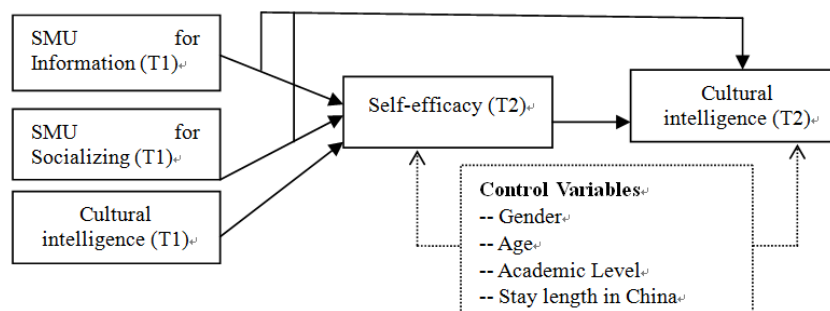
Researchers have further differentiated social media usage into socializing and information gathering/spreading types to explain why people are involved in social media (Hsu et al., 2015; Raacke and Bonds-Raacke, 2008). Informational social media usage refers to users’ achieving timely and relevant information to solve specific problems (Lee and Ma, 2012), which reflects users’ cognitive needs (Hsu et al., 2015). Accordingly socializing social media usage focuses on building and maintaining interpersonal relationships, which reflects users’ emotional needs (Hsu et al., 2015; Lee and Ma, 2012).

2.2 Cultural intelligence

Cultural intelligence (CQ) is defined as individual’s capability to effectively manage in culturally diverse settings (Earley and Ang, 2003; Ng and Earley, 2006; Ang et al., 2007). As a multidimensional construct, CQ consists of metacognitive, cognitive, motivational, and behavioral dimensions. More specifically, metacognitive CQ refers to cognition control: individual’s consciousness and processes to acquire and understand culture-related knowledge. Individuals with high metacognitive CQ are consciously aware of cultural preferences, question cultural assumptions, and make necessary adjustment of their mental models for interaction purposes. Cognitive CQ reflects structured knowledge of the values, norms, practices and conventions of different cultures, which are acquired from education training or other personal experiences. Individuals with high cognitive CQ understand and analyze cultural similarities and differences of different cultures (Brislin et al., 2006). Motivational CQ refers to individual’s capability to direct their attention and energy to manage effectively in culturally diverse situations (Van Dyne et al., 2012). Finally, behavioral CQ reflects an individual’s capability to execute appropriate verbal and nonverbal actions to interact with people in cross-cultural contexts. Individuals with high behavioral CQ exhibit behaviors with appropriate words, gestures and expression ways to situate themselves comfortably into culturally diversified environment (Gudykunst et al., 1988).

3. HYPOTHESES DEVELOPMENT

Figure 1 illustrates the proposed research model.



3.1 Social media usage and self-efficacy

Based on differentiation of social media usage into informational and socializing (Hsu et al., 2015; Raacke and Bonds-Raacke, 2008), we argue that two categories fuel the increase of self-efficacy respectively.

First, when individuals are exposed to a foreign new environment, they are supposed to meet with unexpected uncertainties and risks wherein social media become their first consideration to search for assistance. In order to seek for comfortable psychological state and approaches to adapt to the new environment, individuals use social media to search for related new information required for their survival and success. Selected information improves individual's psychological state, refreshes thinking modes and increases their confidence and motivations to cope with uncertainties. Furthermore, social media enable individuals with the information about others' successful experiences in similar situations. Likewise those successful experiences encourage individuals' conviction of managing similar issues.

H1a: Social media usage for information (T1) is positively related to individual's self-efficacy (T2).

One of the main functions of social media is to facilitate individuals to socialize with others. When communicating with family members, friends, peers and senior people through social media, individuals are more likely to get verbal and social persuasions. For example, when expatriates who arrive at a new friendly environment have more interactions through social media, they will be supported with more encouragements, trust and friendship which relieve their worries and stress caused by cultural differences and increase healthy psychological state. In addition, socializing with experts and experienced professionals, individuals are more likely to learn from their successful experiences and thereby increase their confidence and motivation to deal with various setbacks (Deci and Ryan, 1985).

H1b: Social media usage for socializing (T1) is positively related to self-efficacy (T2).

3.2 Social media usage and cultural intelligence

Social media interplay with individual's learning experiences in both physical world and virtual world. It has been proposed that social media usage is strongly associated with individual's educational experiences and acculturation process in a foreign environment (Li and Tsai, 2015).

First when individuals use social media for information purpose, they are expanding their extensiveness and access of cultural information from a much broader network. To avoid potential cultural conflicts and mitigate cultural shocks, individuals are required for acquiring cultural related information. Social media facilitate individuals to access extensive information on culture and help them to master personal experiences and observe others' successful experiences through posted information. The acquired information about other culture's values, norms, practices and conventions increases the individual's knowledge, conceptual framework, understanding and flexibility in different cultures (metacognitive and cognitive CQ), which in turn enhances their motivation to be engaged in cultural-related affairs (motivational CQ). Similarly, acquired cultural knowledge enables individuals to behave appropriately in cross-cultural settings (behavioral CQ).

H2a: Informational social media usage (T1) is positively related to individual's development of CQ (T2).

Namely we propose that social media usage for socializing would be conducive to the development of cultural intelligence by leveraging the emotional appreciation and worth (Chung and Koo, 2015; Babin et al., 1994). When exposed to a foreign environment, individuals are frequently confronted with uncertainties and unexpected conflicts which lead to negative outcomes (Misra et al., 2003; Sawir et al., 2008). Using social media to interact with others from different cultures may mitigate those negative effects, thereby increasing their interests and motivations to learn more about different cultural knowledge (Bagozzi et al., 2007).

Furthermore, social media usage for socializing is proved to effectively establish and maintain sound interpersonal relationships (McKenna and Bargh, 1999; Bonebrake, 2002). With well-established interpersonal relationships, individuals find it much easier to overcome cultural difficulties, obtain additional encouragement

and trust, improve interaction and cooperation quality, and thereby increase their cognition, interests and motivations to learn more about other cultures which finally enhance their cultural intelligence.

H2b: Social media usage for socializing (T1) is positively related to individual's development of CQ (T2).

3.3 Self-efficacy and cultural intelligence

According to SCT, self-efficacy is a fundamental element to motivate individual's proactivity and performance. Individuals with high self-efficacy have more cognitive control over stresses and maintain direction, efforts and perseverance to adjust to the new environment and are more likely to raise consciousness to learn about another culture and adjust their mental models to meet with the demands of culturally diversified environment, thereby enhancing their meta-cognitive CQ. In addition, individuals with high self-efficacy are more motivated to learn about facets of knowledge of another culture in order to get better flexibilities, understandings and interactions with others. Hence, their cognitive CQ is more likely to be improved. Furthermore, individuals high in self-efficacy enjoy more about interacting and socializing with others because of their strong conviction that they are capable of coping with stresses in different environments (Bandura, 1986). Thus higher level of self-efficacy should facilitate individuals with the development of motivational CQ. Similarly, individuals with high self-efficacy are more proactive to learn more about another culture and have more interactions with locals, peers and superiors from different cultures (Ang et al., 2007). Acquired cultural knowledge and interactions encourage individuals' appropriate behaviors and develop their behavioral CQ.

H3: Individual's self-efficacy is positively related to the development of CQ.

As the key capability of adapting and functioning in environment characterized with cultural diversities, individuals with high CQ have shown adaptability to new cultural contexts and transitional challenges (Earley and Ang, 2003). And they are more open to experiences and more capable to deal with conflicts (Digman, 1990; Ang et al., 2006). As a return, personal successful experiences boost individuals' confidence and enhance their self-efficacy (Bandura, 1986). Furthermore, individuals with higher level of CQ are more agreeable, approachable and cooperative than those low in CQ (Kim et al., 2008; Imai and Gelfand, 2010). Those characteristics are helpful to facilitate individuals to build up intimate interpersonal relationships (Earley and Ang, 2003), in which individuals obtain more social capital, trust and opportunities to observe and learn from others' successful experiences, and thus increase their own self-efficacy. It has also been empirically tested that higher CQ predicts more desirable psychological and sociocultural changes over time (Ward et al., 2011).

H4: Cultural intelligence (T1) predicts the development of self-efficacy (T2).

4. METHODOLOGY

4.1 Samples

To examine the proposed research model, we conducted a questionnaire survey to international students from three Chinese public universities in China because China has become the third largest destination chosen by worldwide international students. We aim to contribute to the literature by conducting the survey at two waves with an interval of six months. The first-wave data were collected within two weeks at the beginning of the new semester and we made the follow-up survey after six months. We delivered 399 questionnaires to the international students and followed up with e-mails and calls as reminders to increase the response rate. A total of 316 respondents finished the questionnaires in both waves with the response rate of 79.2%. After deleting the uncompleted and disordered questionnaires, a total of 248 questionnaires were used in the current research.

Table 1 Sample demographic (n = 248)

		Number	Percentage
Age	≤ 20	114	46.0%
	21–25	99	39.9%
	26–30	27	10.9%
	≥ 31	8	3.2%

		Number	Percentage
Gender	Male	125	50.4%
	Female	123	49.6%
Areas	Asia	127	51.2%
	Africa	78	31.5%
	Europe	3	1.2%
	North America	39	15.7%
	South America	1	0.4%
Educational level	Below bachelor's	162	65.3%
	Bachelor's	68	27.4%
	Master's and above	13	5.2%
	Missing data	5	2.0%

4.2 Measures

All items of the measures were assessed by five-point Likert scales, ranging from 1, “strongly disagree” to 5, “strongly agree”. A six-item scale to measure social media usage was adapted from Hughes et al. (2012). The Cronbach alphas for SMU information was 0.803 in T1. The Cronbach alphas for SMU socializing was 0.700 in T1. We assessed overall cultural intelligence and its four dimensions with a 20-item scale by Ang et al. (2007) at Time 1 and Time 2. The Cronbach alphas for four dimensions was 0.792, 0.841, 0.734 and 0.815 in Time 1 and 0.784, 0.793, 0.813 and 0.825 in Time 2. Self-efficacy was assessed both at Time 1 and Time 2 with a 10-item scale established and used by previous studies (MacNab and Worthley, 2012). The Cronbach alphas for this scale was 0.879 in T1 and 0.908 in T2.

5. Data analysis

5.1 Assessment of variables

We examined the convergent validity with factor loading, composite reliability (CR), Cronbach alpha, and average variance extracted (AVE). Table 2 showed that two-wave items' loadings and CRs were above 0.7. Cronbach's alpha ranged from 0.700 to 0.879 in Time 1 and from 0.784 to 0.908 in Time 2, both above 0.7. AVEs were from 0.512 to 0.743 in Time 1 and from 0.513 to 0.617 in Time 2, both above required 0.5. These results presented measures' good convergent validity. We also checked the discriminant validity of the measurement. Compared with the correlations between each construct and the other constructs, the square root of AVE for each construct was greater than the correlations between the construct and the others. This finding presented the good discriminant validity of the measures. Given that the inter-construct correlation between informational social media usage and socializing social media usage was higher than the benchmark of 0.6, we conducted a multicollinearity test among three independent variables in the research model and found that VIF was acceptable with 1.033, 1.039 and 1.011 respectively.

Table 2 Measurement of constructs (Time 1)

Constructs ^o	Dimensions ^o	Items ^o	Cronbach's alpha ^o	Loadings ^o	CR ^o	AVE ^o
Social media usage (T1) ^o	Information ^o	3 ^o	0.803 ^o	0.833-0.885 ^o	0.897 ^o	0.743 ^o
	socializing ^o	3 ^o	0.700 ^o	0.743-0.821 ^o	0.833 ^o	0.625 ^o
Self-efficacy (T1) ^o	^o	6 ^o	0.879 ^o	0.701-0.797 ^o	0.904 ^o	0.512 ^o
	Meta-cognitive ^o	4 ^o	0.792 ^o	0.707-0.825 ^o	0.867 ^o	0.620 ^o
Cultural intelligence (T1) ^o	Cognitive ^o	6 ^o	0.841 ^o	0.704-0.833 ^o	0.884 ^o	0.560 ^o
	Motivational ^o	5 ^o	0.734 ^o	0.701-0.800 ^o	0.833 ^o	0.556 ^o
Self-efficacy (T2) ^o	Behavioral ^o	5 ^o	0.815 ^o	0.727-0.808 ^o	0.878 ^o	0.589 ^o
	^o	6 ^o	0.908 ^o	0.724-0.792 ^o	0.924 ^o	0.545 ^o
^o	Meta-cognitive ^o	4 ^o	0.784 ^o	0.637-0.847 ^o	0.865 ^o	0.617 ^o
	Cognitive ^o	6 ^o	0.793 ^o	0.644-0.794 ^o	0.840 ^o	0.513 ^o
Cultural intelligence (T2) ^o	Motivational ^o	5 ^o	0.813 ^o	0.721-0.794 ^o	0.871 ^o	0.574 ^o
	Behavioral ^o	5 ^o	0.825 ^o	0.741-0.847 ^o	0.879 ^o	0.593 ^o

Table 3 Means, Standard Deviations (SD) and Correlations.

Variables ^o	Mean ^o	SD ^o	1 ^o	2 ^o	3 ^o	4 ^o	5 ^o
Informational SMU T1 ^o	3.700 ^o	0.909 ^o					
Socializing SMU T1 ^o	3.624 ^o	0.872 ^o	0.662** ^o				
SE T1 ^o	3.832 ^o	0.600 ^o	0.109 ^o	0.038 ^o			
SE T2 ^o	3.819 ^o	0.592 ^o	0.360** ^o	0.256** ^o	0.300** ^o		
CQ T1 ^o	3.523 ^o	0.549 ^o	0.166** ^o	0.052 ^o	0.437** ^o	0.276** ^o	
CQ T2 ^o	3.601 ^o	0.503 ^o	0.321** ^o	0.240** ^o	0.242** ^o	0.579** ^o	0.348** ^o

SMU=social media usage, SE= self-efficacy, CQ=cultural intelligence. N = 248. *p < 0.05, **p < 0.01, ***p < 0.001.

5.2 Hypothesis Testing

SPSS was used to make analysis of related hypothesis. We controlled for age, gender, academic level and length of stay in China, and listed general self-efficacy in Time 1 and cultural intelligence in Time 1 into control variables to avoid possible impacts on results when we examined the constructs of self-efficacy and cultural intelligence in Time 2. Tables 4 and 5 show the final results. Consistent with H1a, the results shown in Table 4 presented that informational SMU ($\beta = 0.307, p < 0.001$) was significantly related to the development of general self-efficacy in Time 2. Thus H1a was supported. Furthermore, the result shows that socializing SMU was also significantly related to general self-efficacy in Time 2 ($\beta = 0.236, p < 0.001$), thereby supporting H1b. Similarly, we tested whether social media usage either for information or for socializing was positively related to the development of cultural intelligence. The results in Table 4 and 5 showed that informational SMU ($\beta = 0.263, p < 0.001$) and socializing SMU ($\beta = 0.221, p < 0.001$) were both significantly related to the development of cultural intelligence in Time 2. Thus hypothesis H2a and H2b were supported as well.

Table 4 showed that when we added self-efficacy in the regression between informational social media usage and cultural intelligence, both informational social media usage ($\beta = 0.114, p < 0.05$) and general self-efficacy in Time 2 ($\beta = 0.486, p < 0.001$) were significantly associated with cultural intelligence. The results proved that self-efficacy partially mediated the relationship between informational social media usage and cultural intelligence. Similarly, both socializing social media usage ($\beta = 0.105, p < 0.05$) and general self-efficacy in Time 2 ($\beta = 0.496, p < 0.001$) were significantly associated with cultural intelligence in Time 2. Thus H3 was supported. Accordingly, we found that in Table 4 and 5 cultural intelligence in Time 1 was significantly associated with self-efficacy in Time 2. Thus H4 was also supported.

Table 4. Results of hierarchical regression analyses when SMU for Information.

	GSE T2 ^o	CQ T2 ^o	CQ T2 ^o	GSE T2 ^o
Age ^o	0.009 ^o	-0.013 ^o	-0.017 ^o	0.015 ^o
Gender ^o	0.030 ^o	0.028 ^o	0.014 ^o	0.016 ^o
Length of stay in China ^o	-0.067 ^o	-0.015 ^o	0.018 ^o	-0.060 ^o
Education level ^o	0.011 ^o	0.006 ^o	0.001 ^o	0.008 ^o
GSE T1 ^o	0.200** ^o	0.094 ^o	-0.004 ^o	0.156** ^o
CQ T1 ^o	0.139* ^o	0.263*** ^o	0.196** ^o	0.014 ^o
Informational SMU ^o	0.307*** ^o	0.263*** ^o	0.114* ^o	0.182** ^o
GSE T2 ^o			0.486*** ^o	
CQ T2 ^o				0.475*** ^o
R2 ^o	0.218 ^o	0.201 ^o	0.386 ^o	0.398 ^o
$\Delta R2^o$			0.184 ^o	0.181 ^o
ΔF^o			71.754*** ^o	71.754*** ^o

N = 248. Standardized regression coefficients are shown. *p < 0.05, **p < 0.01, ***p < 0.001.

Table 5. Results of hierarchical regression analyses for mediation when SMU for Socializing

	GSE T2 ^o	CQ T2 ^o	CQ T2 ^o	GSE T2 ^o
Age ^o	-0.016 ^o	-0.034 ^o	-0.027 ^o	0.001 ^o
Gender ^o	0.054 ^o	0.051 ^o	0.024 ^o	0.029 ^o
Length of stay in China ^o	-0.080 ^o	-0.025 ^o	0.015 ^o	-0.068 ^o
Education level ^o	0.029 ^o	0.021 ^o	0.007 ^o	0.018 ^o
GSE T1 ^o	0.204** ^o	0.097 ^o	-0.005 ^o	0.156*** ^o
CQ T1 ^o	0.176** ^o	0.293*** ^o	0.206*** ^o	0.030 ^o
Socializing SMU ^o	0.236*** ^o	0.221*** ^o	0.105* ^o	0.126* ^o
GSE T2 ^o			0.496*** ^o	
CQ T2 ^o				0.496*** ^o
R2 ^o	0.183 ^o	0.183 ^o	0.385 ^o	0.384 ^o
$\Delta R2^o$			0.201 ^o	0.201 ^o
F ^o			78.097*** ^o	78.097*** ^o

N = 248. Standardized regression coefficients are shown. *p < 0.05, **p < 0.01, ***p < 0.001.

6. DISCUSSIONS

6.1 Findings

The current research examines the impacts of social media usage on cultural intelligence and general self-efficacy. The results support all predictions and provide us with more complete understandings about the relationship among social media usage, general self-efficacy and cultural intelligence.

The research indicates that social media usage does impact on individual's cultural intelligence development and self-efficacy. First informational social media purpose impacts on the development of both cultural intelligence and self-efficacy. Similarly, socializing social media usage is also positively related to both cultural intelligence and self-efficacy. In addition, self-efficacy was found to be an effective mediator between social media usage and cultural intelligence. Furthermore, the result suggests that cultural intelligence is also positively related to self-efficacy. The finding supports SCT with the bilateral relationships between self-efficacy and cultural intelligence.

6.2 Theoretical and practical implications

The current research makes several important contributions both theoretically and practically.

First, most of previous research about social media was cross-sectional and focused on single cultural background and neglected particular context (Argyris and Xu, 2016). We have examined a longitudinal research and extended nomological network of social media research to non-western countries and cross-cultural settings. Second, the research contributes to social media research by discovering that social media usage is the source of developing self-efficacy and cultural intelligence. Third, the research has confirmed that self-efficacy partially mediates the relationship between social media usage and cultural intelligence, which has extended the research of self-efficacy in cross-cultural settings and unveiled the underlying mechanism how social media work on personal development. Fourth, the finding contributes to the extension of nomological network of cultural intelligence by discovering that media usage is another determinant to develop cultural intelligence and cultural intelligence feeds back to the development of self-efficacy in cross-cultural settings.

The current research also has several significant practical implications. First, our findings suggest that practitioners and administrators should highlight the important roles of social media usage in a culturally diverse environment because social media usage could increase expatriate's self-efficacy and cultural intelligence. Second, measures to encourage expatriate's cultural intelligence should be considered for developing expatriate's self-efficacy to cope with international assignments. Third, those expatriates with high self-efficacy should be considered first to be selected for international tasks because they seem to have more potential to develop cultural intelligence to adapt to the new environment.

7. LIMITATIONS AND FUTURE RESEARCH

Despite of contributions, the current research has limitations to be addressed by future studies.

First, we conducted the research with the international students as survey samples. However, most of them are from Asian and African countries. Samples from more regions and circles should be considered for future studies. Second, the research hasn't touched on the topic that development of self-efficacy and cultural intelligence might also impact on the usage of social media. Third, the research has found that self-efficacy partially mediates the relationships between social media usage and cultural intelligence. Given the complexity of cross-cultural settings, more research is needed to explore other potential mediators or moderators about social media usage. Finally, this research has a limitation that it relied on self-reported data at two points in time. Future research might employ multiple sources to avoid potential common method variances.

8. CONCLUSIONS

Based on the framework of Social Cognitive Theory, the research explores how social media usage effects individual's boosting of self-efficacy and cultural intelligence in cross-cultural settings. The findings indicate that both informational and socializing usage of social media increase individual's self-efficacy whereby cultural intelligence is developed. Moreover, the research finds the causation relationship between self-efficacy and cultural intelligence exists.

ACKNOWLEDGEMENT

This research was supported by Anhui Provincial Teaching Reforming Project (2016jyxm0129), Anhui Social Sciences Research Project (SK2017A0082) and China Association for International Education Project (2014-15Z012).

REFERENCES

- [1] Achterkamp, R. , Hermens, H.J. and Vollenbroek-Hutten, M.M.R. (2015). The influence of success experience on self-efficacy when providing feedback through technology, *Computers in Human Behavior*, 52: 419–423.
- [2] Ainin, S., Naqshbandi, M. M., Moghavvemi, S. and Jaafar, N. I. (2015). Facebook usage, socialization and academic performance. *Computers & Education*, 83: 64-73.
- [3] Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C. and Chandrasekar, N. A. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation, and task performance. *Management and Organization Review*, 3: 335–371.
- [4] [5] Ang, S., Van Dyne, L., & Koh, C. K. S. (2006). Personality correlates of the four factor model of cultural intelligence. *Group and Organization Management*, 31: 100–123.
- [6] Argyris Y. E. and Xu J. (2016). Enhancing self-efficacy for career development in Facebook. *Computers in Human Behavior*, 55: 921–931.
- [7] Babin, B. J., Darden, W. R. and Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. *Journal of Consumer Research*, 20(4): 644–656.
- [8] Bagozzi R. P., Dholakia U. M. and Pearo, L. R. K. (2007). Antecedents and Consequences of Online Social Interactions. *Media Psychology*, 9(1): 77-114.
- [9] Bandura, A. (2001). Social Cognitive Theory of Mass Communication. *Media Psychology*, 3(3): 265-299.
- [10] Bandura, A. (1995). Self-efficacy in changing societies. Cambridge, U.K: Cambridge University Press.
- [11] Bandura, A. (1986). *Social Foundations of Thought and Action: a Social Cognitive Theory*. Prentice-Hall, Englewood Cliffs, NJ.
- [12] Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2): 191–215.
- [13] Bonebrake, K. (2002). College Students' Internet Use, Relationship Formation, and Personality Correlates. *CYBERPSYCHOLOGY & BEHAVIOR*, 5(6): 551-557.
- [14] Brislin, R., Worthley, R. and MacNab, B. (2006). Cultural intelligence: Understanding behaviors that serve people's goals. *Group and Organization Management*, 31: 40–55.
- [15] Chen, M. L. and Lin, C. P. (2013). Assessing the effects of cultural intelligence on team knowledge sharing from a socio-cognitive perspective. *Human Resource Management*, 52(5): 675–695.
- [16] Chung, N. and Koo, C. (2015). The use of social media in travel information search. *Telematics and Informatics*, 32: 215–229.
- [17] Correa, T., Hinsley, A. W. and De Zuniga, H. G. (2010). Who interacts on the Web?: The intersection of users' personality and social media use. *Computers in Human Behavior*, 26(2): 247–253.

- [18] Deci, E. L. and Ryan, R. M. (1985), *Intrinsic motivation and self-determination in human behavior*, New York: Plenum.
- [19] Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, 41: 417–440.
- [20] Earley, P. C. and Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Palo Alto, CA: Stanford University Press.
- [21] Ellison, N. B., Steinfield, C. and Lampe, C. (2007). The benefits of Facebook “friends:” Social capital and college students’ use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4): 1143–1168.
- [22] Fenner, C.R. and Selmer, J. (2008). Public sector expatriate managers: psychological adjustment, personal characteristics and job factors. *The International Journal of Human Resource Management*, 19 (7): 1237-1252.
- [23] Gudykunst, W. B., Ting-Toomey, S., & Chua, E. (1988). *Culture and interpersonal communication*. Newbury Park, Calif: Sage.
- [24] Hawkins, R., Kreuter, M., Resnicow, K., Fishbein, M. and Dijkstra, A. (2008). Understanding tailoring in communicating about health. *Health Education Research*, 23(3): 454–466.
- [25] Harrison, J.K., Chadwick, M. and Scales, M. (1996). The relationship between cross-cultural adjustment and the personality variables of self-efficacy and self-monitoring. *International Journal of Intercultural Relations*, 20 (2): 167-188.
- [26] Hocevar, K. P., Flanagin, A. J. and Metzger, M. J. (2014). Social media self-efficacy and information evaluation online. *Computers in Human Behavior*, 39: 254–262.
- [27] Hsu, M.-H., Tien, S.-W., Lin, H.-C. and Chang, C.-M. (2015). Understanding the roles of cultural differences and socio-economic status in social media continuance intention. *Information Technology & People*, 28 (1): 224 – 241.
- [28] Huang, H. (2016). Media use, environmental beliefs, self-efficacy, and pro-environmental behavior. *Journal of Business Research*, 69: 2206–2212.
- [29] Hughes, D. J., Rowe, M., Batey, M. and Lee, A. (2012). A tale of two sites: Twitter vs. Facebook and the personality predictors of social media usage. *Computers in Human Behavior*, 28: 561–569.
- [30] Imai, L. and Gelfand, M.J. (2010). The culturally intelligent negotiator: the impact of cultural intelligence (CQ) on negotiation sequences and outcomes. *Organizational Behavior and Human Decision Processes*, 112(2): 83-98.
- [31] Kaplan, A. M., and Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1): 59–68.
- [32] Khawaja, N. G. and Smith, R. A. (2011). A review of the acculturation experiences of international students. *International Journal of Intercultural Relations*, 35: 699–713.
- [33] Kim, K., Kirkman, B. L., & Chen, G. (2008). Cultural intelligence and international assignment effectiveness: A conceptual model and preliminary findings. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 71 – 90). Armonk, NY: M.E. Sharpe.
- [34] Kim, Y., Sohn, D. and Choi, S. M. (2011). Cultural difference in motivations for using social network sites: A comparative study of American and Korean college students. *Computers in Human Behavior*, 27: 365–372.
- [35] Kirschner, P. A. and Karpinski, A. C. (2010). Facebook and academic performance. *Computers in Human Behavior*, 26: 1237–1245.
- [36] LaRose, R. and Eastin M. S. (2004). A Social Cognitive Theory of Internet Uses and Gratifications: Toward a New Model of Media Attendance. *Journal of Broadcasting & Electronic Media* 48(3): 358-377.
- [37] Lee, C.S. and Ma, L. (2012). News sharing in social media: the effect of gratifications and prior experience. *Computers in Human Behavior*, 28 (2): 331-339.
- [38] Leonardi, P. M. (2014). Social media, knowledge sharing, and innovation: toward a theory of communication visibility. *Information Systems Research*, 25 (4): 796–816.
- [39] Li, C. and Tsai, W.H. S. (2015). Social media usage and acculturation: A test with Hispanics in the U.S. *Computers in*

- Human Behavior, 45: 204–212.
- [40] Luchman, J. N., Bergstrom, J. and Krulikowski, C. (2014). A motives framework of social media website use: A survey of young Americans. *Computers in Human Behavior*, 38: 136–141.
- [41] Ma Y. G., Ma, L. Y. and Ito, N. (2014). Exploring the Predicted Effect of Social Networking Site Use on Perceived Social Capital and Psychological Well-Being of Chinese International Students in Japan. *CYBERPSYCHOLOGY, BEHAVIOR, AND SOCIAL NETWORKING*, 17(1): 52-58.
- [42] MacNab, B. R. and Worthley, R. (2012). Individual characteristics as predictors of cultural intelligence development: The relevance of self-efficacy. *International Journal of Intercultural Relations*, 36: 62– 71.
- [43] Mattanah, J. F., Ayers, J. F., Brand, B. L., Brooks, L. J., Quimby, J. L. and McNary, S. W. (2010). A social support intervention to ease the college transition: exploring main effects and moderators. *Journal of College Student Development*, 51: 93–108.
- [44] McKenna, K. Y. A. and Bargh, J. A. (1999). Causes and Consequences of Social Interaction on the Internet: A Conceptual Framework. *Media Psychology*, 1(3): 249-269.
- [45] Misra, R., Crist, M. and Burant, C. J. (2003). Relationships among life stress, social support, academic stressors, and reactions to stressors of international students in the United States. *International Journal of Stress Management*, 10 (2): 137–157.
- [46] Ng, K. Y. and Earley, C. (2006). Culture + Intelligence: Old constructs, new frontiers. *Group and Organizational Management*, 31(1): 4–19.
- [47] Phipps, M., Ozanne, L. K., Luchs, M. G., Subrahmanyam, S., Kapitan, S., Catlin, J. R. and Weaver, T. (2013). Understanding the inherent complexity of sustainable consumption: a social cognitive framework. *Journal of Business Research*, 66 (8):1227–1234.
- [48] Raacke, J. and Bonds-Raacke, J. (2008). MySpace and Facebook: Applying the uses and gratifications theory to exploring friend-networking sites. *Cyberpsychology & Behavior*, 11(2): 169–174.
- [49] Rehg, M. T., Gundlach, M. J. and Grigorian, R. A. (2012). Examining the influence of cross-cultural training on cultural intelligence and specific self-efficacy. *Cross Cultural Management: An International Journal*, 19(2): 215 - 232.
- [50] Sawir, E., Marginson, S., Deumert, A., Nyland, C. and Ramia, G. (2008). Loneliness and international students: An Australian study. *Journal of Studies in International Education*, 12: 148–180.
- [51] Sendurur, P., Sendurur, E. and Yilmaz, R. (2015). Examination of the social network sites usage patterns of pre-service teachers. *Computers in Human Behavior*, 51: 188–194.
- [52] Smith, C. (2014). Student debt: state policies leave families with few good options. *The Educational Digest*, 79(7): 2–5.
- [53] Smith R. A. and Khawaja, N. G. (2011). A review of the acculturation experiences of international students. *International Journal of Intercultural Relations*, 35(6): 699–713.
- [54] Townsend, P. and Poh, H. J. (2008). An exploratory study of international students studying and living in a regional area. *Journal of Marketing for Higher Education*, 18: 240–263.
- [55] Van Dyne, L., Ang, S., Ng, K.Y., Rockstuhl, T., Tan, M. L. and Koh, C. (2012). Sub-dimensions of the four factor model of cultural intelligence: Expanding the conceptualization and measurement of cultural intelligence. *Social and Personality Psychology Compass*, 6(4): 295–313.
- [56] Ward, C., Wilson, J. and Fischer, R. (2011). Assessing the predictive validity of cultural intelligence over time. *Personality and Individual Differences*, 51: 138–142.
- [57] Wohn, D. Y. and LaRose, R. (2014). Effects of loneliness and differential usage of Facebook on college adjustment of first-year students. *Computers & Education*, 76: 158–167.
- [58] Wright, S., Johnston, M. and Weinman, J. (1995). Measures in health psychology portfolio. Windsor.
- [59] Zhang, J. and Goodson P. (2011). Acculturation and psychosocial adjustment of Chinese international students: Examining mediation and moderation effects. *International Journal of Intercultural Relations*, 35(6): 614–627.