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USAGE OF ONLINE SOCIAL NETWORKS IN CULTURAL ADAPTATION

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Abstract

Online social networks (OSN) have become an important part of every individual's social support network. This makes OSNs, particularly important to the sojourner who will have to constantly resort to social support sources to cope with the difficulties and psychological stress of cross-cultural adaptation. Nevertheless, the use of OSNs in the context of cultural adaptation is an under explored area. This study draws upon social network theory, adopts a qualitative research approach with multiple case design, to investigate how international students use OSNs to adapt to a new culture. Three themes emerged from our findings. OSNs can be leveraged to 1) enable socialization, 2) facilitate knowledge exchange, and 3) alleviate acculturative stress in adapting to a new culture. We believe our study contributes to the sparse literature on the impact of OSNs on cross-cultural adaptation and serves a foundation for future research in this vital area of OSN usage.

Keywords: online social networks, cultural adaptation, socialization, knowledge exchange.

1 INTRODUCTION

Extensive research has been conducted to understand and explain the notion of cross-cultural adaptation, mostly from psychological and sociological perspectives. These research work and theories attempt to explain how an individual moving from one culture to another (mostly crossing the borders of one's country) align his life to the new culture's rules, customs and perceptions. Since the turn of the 20th century, the number of people crossing country borders for studies, business, and other purpose has been increasing rapidly. Concurrent with this change, there has been a proliferation of social networking technologies that enable people to communicate and share experience in diverse modes irrespective of geographic location and time. Given the availability of these technologies that enable sojourners (people who are temporary residing in countries other than their home country) to maintain old networks in the home country as well as build new relations in the host culture, it has become more vital to revisit the issue of cultural adaption of sojourners (Church 1982) taken into consideration their use of these technologies.

Prior research has explained cultural adaptation as a recovery from cultural shock, a learning process, a process of recovery and of learning, a process of reducing the uncertainty unleashed by confrontation with the foreign culture, etc (Anderson 1994). One of the dominant themes in the cultural adaptation literature is that the sojourner will face a cultural shock (i.e., (cultural) adjustment stress in the sense of (Weaver 1993) which results from an encounter with norms and behaviors that are unfamiliar and confusing (Ang et al. 2007)) during a cultural switch. To mitigate this shock and so to orient oneself in the new culture, the sojourner resort to the use of various methods and resources. Among these, the social landscape of human assistance is said to be critical to the process of cross-cultural adaptation as various form of social support from people of the home culture and the new culture help the sojourner in the process of adjusting to life in a new culture (Adelman 1988).

The importance of the support that the sojourner receives from people especially families and close friends in the home culture is underscored by various research findings (e.g., (Brett & Werbel 1980; Freid 1963)) which have shown that separation from old networks constitute the most difficult aspects for the sojourner in the initial stages of cross-cultural adaptation. Social networking technologies like Social Network Sites (SNSs) which remain an important and indispensable feature of our lives can help alleviate the pain and sorrow resulting from the physical and geographical separation from old relations in the home culture as they provide an opportunity for the sojourner to easily keep in touch with these relations and build new ones in the host culture. It is thus imperative to investigate the ways in which the sojourner leverage on the social networks created and managed through SNSs in the cultural adaptation process. However, while the impact of traditional networks on cross-cultural adaptation has been well-studied, support provided by online social networks has received scant attention (Ye 2006).

This study, therefore, drawing upon social network theory (Barnes 1987; Granovetter 1973; Milgram 1967), social capital theory (Coleman 1988; Putnam 2000) and the cultural adaptation framework by Ang et al. (2007) seeks to further the understanding of sojourners' cultural adaptation in the context of their usage of online social networks. Specifically, we ask, *how do sojourners use online social networks in adapting to a new culture?* To explore this question in depth, a multiple-case, inductive study was adopted. Eight foreign international students of the National University of Singapore (NUS) were selected and engaged in an in-depth interview to gather insights regarding their online social networks' usage in adjusting to life in Singapore. Additionally, we studied the students' activities (which were public) with their online social networks as a way of triangulating the interview findings.

From the analysis of our findings a framework emerged describing the cultural adaptation process of sojourners in regards to their use of online social networks. We found that sojourners leverage on their online social networks to acquire relevant cultural knowledge, enable their socialization with locals in the host culture and cope with the stress of adjusting to unfamiliar norms and behaviours which facilitate their adaptation to cultural change. However, privacy concerns about SNSs were identified

as a factor which can inhibit the sojourner's usage of online social networks in the cultural adaptation process. Aside the above theoretical contribution, this study recommends different types of social ties within the sojourner's social networks for him to find various forms of social support during the process of cultural adaptation.

Our paper is organized in the following manner: Section 2 explains the theoretical lens of this study. Section 3 elaborates on the research approach and data collection methods. In section 4, we provide our data analysis procedures and discuss our findings. Finally, we provide a summary of our findings and present some theoretical and practical implications.

2 THEORETICAL BACKGROUND

1.1 Cultural adaptation

Cultural adaptation has been used interchangeably with cultural adjustment in the literature, and has been variously defined. Haslberger (2005) defined cultural adaptation as a process in which a person familiarize with and is able to function effectively in a new culture. Adelman (1988) considers cultural adjustment as coping with uncertainty in and attaining perceived mastery or control over the new cultural environment. According to Searle and Ward (1990), cultural adaptation includes socio-cultural sense of adjustment and psychological feelings of wellbeing. Ang et al. (2007) adopt the definition by Searle and Ward (1990) conceptualize cultural adaptation as consisting of interactional adjustment and wellbeing. Interactional adjustment is a measure of how well an individual has adjusted to the new cultural setting in terms of socializing, interacting and getting along with people. Wellbeing on the other hand reflects an individual's ability to concentrate on his activities, face up to his responsibilities and make decisions in the new cultural environment. We adopt the conceptualization of cultural adaptation by Ang et al. (2007) in this study.

The cultural adaptation process has been diversely explored in the literature. In this study, we adapt the model (see Figure 1) by Ang et al. (2007) which posits a relationship between 2 dimensions of cultural intelligence (CQ) (motivational and behavioral) and cultural adaptation. The authors validated this model through several substantive studies and found consistent results. Cultural intelligence (CQ) according to the authors refers to an individual's capability to function and manage effectively in culturally diverse settings. CQ has been conceptualized as a multi-dimensional construct comprising of metacognitive, cognitive, motivational and behavioral dimensions of which the latter 2 dimensions Ang et al. (2007) have established as relating positively to cultural adaptation.

Motivational CQ reflects an individual's intrinsic interest in learning about and functioning in culturally diverse situations as well as confidence in his cross-cultural effectiveness. Behavioural CQ on the other hand, reflects the capability to appropriately adjust verbal and non-verbal behaviours as cultural situations require (Ang et al. 2007).

The core defining properties of the 2 CQ dimensions as provided by Ang et al. (2007) are provided as a network model (Miles et al. 2013) in Figure 1 below. These measuring properties are represented by the rectangular nodes attached to the oval nodes. As an illustration, to be considered as culturally motivated (i.e., having *Motivational CQ*), a person must show confidence in socializing with people of and in dealing with the stress of adjusting to the host culture. Also, he must enjoy interacting with people of and life in the host culture. Similarly, *Behavioral CQ* is assessed by a person's ability to exhibit appropriate verbal and non-verbal behaviors as cultural situations require based on their acquired knowledge related these behaviours. *Motivational CQ* and *Behavioral CQ* lead to cultural adaptation which reflects the *Interactional Adjustment* and *General Wellbeing* of the sojourner.

The purpose of this study is to explore the various ways in which an individual leverages on his online social networks to facilitate his development of motivational CQ and behavioural CQ which enable his adaptation to a new culture.

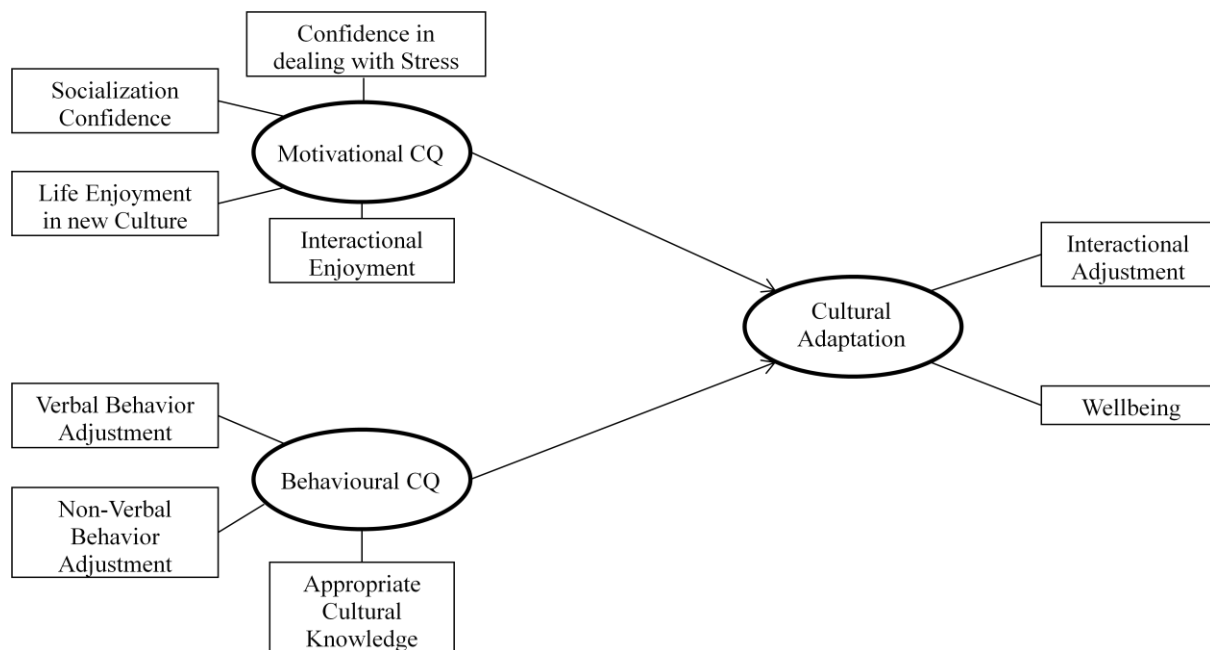


Figure 1. A network model of cultural adaptation

1.2 Social Networks

We adopt social network theory and social capital theory as the other theoretical lens of this study. From a social network perspective, a social network involves a set of actors and the relations that connect them (Ye 2006). The social network of actors (i.e., individual people, organizations or families) consists of strong ties and weak ties. A tie is the relationship between individuals in the network. Strong ties such as family or close friends (Adelman 1988; Lin et al. 2012), are more intimate and involve various form of resource exchange. Weak ties such as friends of friends, past colleagues, or other acquaintances (Ellison et al. 2009), on the other hand, involve fewer intimate exchanges and less frequent maintenance. They are considered as valuable conduits to diverse perspectives and new information (Ellison et al. 2009).

Social capital has been used to describe the latent aggregated resources and benefits entrenched in the relationships with other people (Coleman 1988; Ellison et al. 2009) such as tangible assistance, emotional support, assurances and skill acquisition (Adelman 1988). Two kinds of social capital has been discussed by Putnam (2000). Bonding social capital comes from strong ties (i.e., close friends and family) in the form of emotional support (Lin et al. 2012) and tangible resources (Ellison et al. 2009). Bridging social capital, conversely, “consists of loose relationships (i.e., weak ties) which serve as bridges connecting a person to a different network, allowing the person access to new perspectives and diffuse information” (Lin et al. 2012).

According to Birnie and Horvath (2002), social network theory is applicable to describe human relationships developed through either face-to-face communication or electronic means. It is particularly relevant to the examination of how the Internet helps maintain old ties and establish new ties (Ye 2006). SNSs, aside facilitating the maintenance of pre-existing social ties and the creation of new connections (Ye 2006), are considered to be an important platform for individuals to manage a wider network of weak ties (Ellison et al. 2009). Social network theory is therefore applicable to examine online social networks developed through SNSs.

The aim of this study, thus, is to explore how sojourners use online social networks to achieve bonding and bridging social capitals which enable their adaptation to a new culture. Like many other SNSs researchers, we treat social capital as an outcome rather than as a cause, a process, or an effect (Lin et al. 2012). We consider online social networks developed through Facebook for the following reasons: 1), Facebook is the dominant SNS in most countries of the world (Cosenza 2013), 2). It is the dominant social networking platform in the number of users. Some 71% of online adults (18years and

above) are Facebook users (Duggan & Smith 2013), and 3) Given 1) and 2), there is a higher probability that our research subjects are Facebook users.

3 RESEARCH APPROACH

The research design adopted was a multiple-case, inductive study for the following reasons. First, the research question concerns a “how” question which is better answered using inductive methods (Walsham 1995). Second, according to Yin (1994), multiple cases enable a replication logic as inferences drawn from one case can be confirmed or disconfirmed based on inferences from the others (as cited in Graebner & Eisenhardt 2004). Moreover, compared to single-case studies, the findings from multiple-case research are typically more generalizable and better grounded (Graebner & Eisenhardt 2004).

We selected 8 international students of NUS as cases. The cases were selected based on criterion sampling (Shakir 2002). NUS was chosen as the case setting for the primary reason that, as a global university centered in Asia, it receives students every semester from all over the world. Thus, we could easily select relevant cases for studying. A brief description of each student is provided in Table 1.

For the purpose of this study, we requested that participants ‘add’ us as Facebook friends so we could study their Facebook activities which all the participants consented to. All the participants were active Facebook users with the exception of *Participants 1* and 2 who rarely access their account. Thus, for these two participants, online social networks played no role in their adaptation to the new culture. The 6th column in Table 1 provides the total number of people (i.e., locals and/or foreigners other than a participant’s compatriot) in the host culture each participant has ‘added’ to his/her Facebook friends list since relocating to the new culture.

Participant No.	Country	PhD/ Exchange	Sex	Cross-cultural Experience	No. of Facebook friends ‘added’
[1]	Korea	PhD	M	7 months internship experience in USA. Several visits to China	1
[2]	China	Exchange	F	5 years stay in Sweden for studies	1
[3]	Canada	Exchange	F	Several visits to different countries	38
[4]	Ghana	PhD	M	None	8
[5]	Egypt	PhD	M	None	10
[6]	France	Exchange	M	3 months stay in Berlin	50
[7]	Portugal	PhD	F	None	28
[8]	Italy	Exchange	F	None	12

Table 1. Brief description of study participants

1.3 Data collection

Our main data source consisted of interviews. According to Myers and Newman (2007), interviewees represent various “voices”. Eliciting diverse views is critical for triangulation purpose (Rubin & Rubin 2005) and for the prevention of elite bias (Miles & Huberman 1994). In all, we conducted 8 face-to-face interviews between November 1, 2014 and December 15, 2014. Each interview lasted approximately one hour. All the interviews were tape-recorded and transcribed.

During the interview, we first ascertained the cultural adaptation of the participants by probing the motivational CQ and the behavioural CQ of the participants as well as their interactional adjustment and wellbeing. Subsequently, we inquired about their use of online social networks in their cultural

adaptation process, i.e., in attaining interactional adjustment and wellbeing. Some of the interview questions were adapted from (Ang et al. 2007; Sawyer 2011). We also asked questions that sought to elicit general views on the impact of online social networks on cultural adaptation.

The interview data was supplemented with information gathered from the participants' Facebook account relating to their activities (or interactions) with their online social networks.

4 DATA ANALYSIS

We began the data analyses by building individual case studies synthesizing the interview transcripts and the Facebook data. This was to ensure triangulation between the two data sources in an attempt to create a richer account.

We used the written case stories for two analyses: within-case and cross-case. For the within-case analysis, we represented our case stories using network displays. According to Miles et al. (2013), network displays “are very helpful when you want to focus on multiple variables at the same time for readily analyzable information at a glance”. Also, they make it easier to draw and verify conclusions than when extended text is used. From the network displays and again reading the case stories, we developed constructs and relationships to describe the cultural adaptation process of each participant in regards to their usage of social networks. As a critical aspect of the inductive process, we were not guided by any specific hypothesis; rather we allowed the constructs to emerge from the data.

Following the within-case analysis of all cases, cross-case analysis began where we looked for similarities in terms of constructs and relationships across multiple cases. Similar to the approach adopted by Graebner and Eisenhardt (2004), using replication logic, we refined emerging relationships, revisiting the data to check whether each case reflected the same pattern.

Through this process a framework emerged describing how sojourners use their social networks for cultural adaptation. Providing an abstraction of the emerged framework, the model in Figure 2 was developed to describe the cultural adaptation process of sojourners with reference to their interaction with social ties in both online and offline contexts.

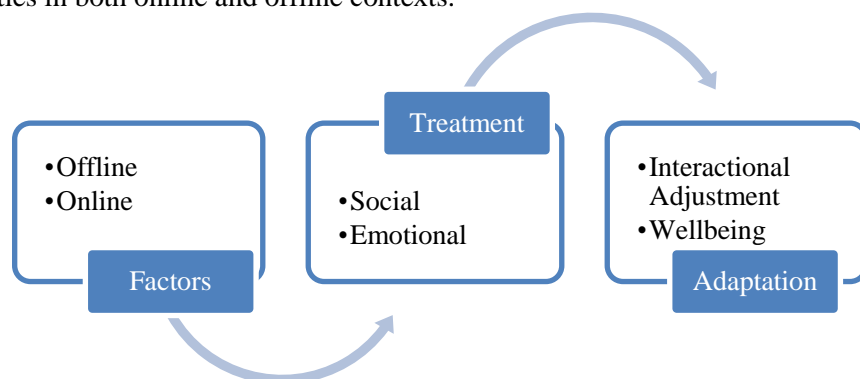


Figure 2. An abstract model for cultural adaptation

Three main components constitute the model: *Factors*, *Treatment*, and *Adaptation* (i.e., Cultural Adaptation). As contended in this paper, cultural adaptation refers to interactional adjustment and wellbeing and is the result of an individual having motivational CQ and behavioural CQ. Cultural Adaptation depends on the *Treatment* component.

Treatment refers to the interactions or activities that occur between the sojourner and his social networks through which he acquires bonding and bridging social capitals which facilitate his adaptation to the new culture. *Treatment* is categorized as *Social* and *Emotional*. *Social Treatment* refers to the interactions or activities which contribute to the sojourner's enjoyment of the host culture and his confidence of adjusting to it. *Emotional Treatment* on the other hand, refers to the interactions or activities which help the sojourner deal with the stress of the acculturation process.

Factors mark how *Treatment* can occur and define the strength of the *Treatment*. *Offline* and *Online Factors* indicate those factors that impact the sojourner’s achievement of any of the *Treatment* through his interaction with offline and online social networks, respectively. It must be noted that the offline and online factors influence each other in the acculturation process of the sojourner. As an example, the sojourner may plan social events (e.g., sports, trips, etc.) online with strong ties in the host culture. These social events can serve as an opportunity for the sojourner to meet new friends or learn about life in the host culture. Similarly, social network platforms can offer the platform for the sojourner to solidify relationships established offline with people in the host culture through frequent interactions and other activities online.

To specifically address our research question, we created a detailed model (see Figure 3) based on the model in Figure 2 with reference to our study findings. We state that the *Factors* and *Treatment* components have been defined based on the participants’ interaction with their online social networks as our study revealed. However, since offline and online factors influence each other as stated earlier, in the following discussion, we also explain their interaction with offline social networks in the context of these defined components as and when necessary. We first present the participants’ adaptation to the new culture followed by a discussion of the constructs of the *Factors* and *Treatment* components.

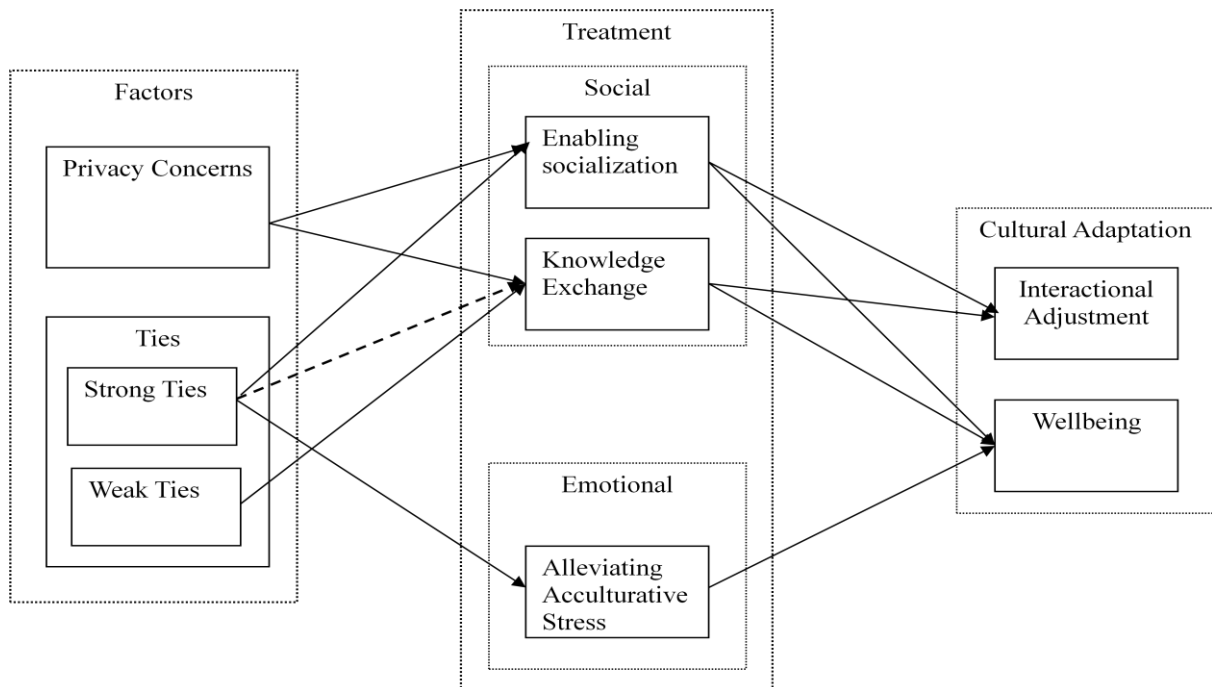


Figure 3. Detailed model of cultural adaptation

4.1 Cultural Adaptation

Our data analysis revealed that all the participants have achieved the motivational and behavioural dimensions of CQ which reflected in their interactional adjustment and feeling of wellbeing in the new cultural environment. Some of the participants’ comments below lend credence to the findings:

“I have made a lot of Singaporeans with whom I interact very often. Some foreigners complain about Singlish (Singlish is a colloquial Singaporean English) but I think it’s better. I understand their accent very well even than the British..... I have enjoyed life here so far... I don’t feel homesick; I don’t feel any stress either” (Participant 6)

“I am in good terms with everyone and I have enjoyed working with them so far.... Considering that this is my first time of experiencing life in a different culture in a foreign land, I am happy with the way I have adjusted so far” (Participant 4)

The participants' attainment of motivational CQ reflects mainly in their enjoyment of Singapore's multicultural social environment which provides a good platform to meet people from all walks of life. The following comments by Participant 4 "*I went on a tour in Singapore with my friends. I enjoyed it. I also went for an Australian friend's birthday party. I made many European friends there*" and Participant 7 "*You get to meet different people from different cultures every day and you get to learn new stuff...*" show how they relish the opportunity to connect with people of diverse backgrounds and share cultural experiences. Some participants also commented that the cultural diversity is similar to that of their home country which makes them feel at home in Singapore. An example of comments in this regard include: "*Singapore is very diverse. There are people from all types of backgrounds and cultures.... Canada is similar in that sense so in Singapore I don't feel like a foreigner or an outsider...*" (Participant 3).

As regards behavioural CQ, most respondents commented they use non-verbal communication often during cross-cultural interactions. This is due to the participants' difficulty in understanding Singlish, a colloquial Singaporean English as seen the following comments: "*I know some exchange students have a problem with the accent and pronunciation of Singlish*", "*I cannot understand some of their random words in sentences*". Consequently, most participants used gestures as the comments below reveal:

"I do not change my accent...occasions where I am not understood I use my hands"
(Participant 8)

"When it is difficult for me to explain something to my lab mates, I draw to explain to them... most of the time I use body language when I cannot express myself clearly in words"
(Participant 5)

"Instead of changing accent or tone, I use facial and hand gestures" (Participant 1)

Other participants' comments also show an indication of verbal behavioural adjustment:

"In Sweden we call lecturers by name without the prefix: prof or doc. In NUS it is different. You have to add the prefix. But I have adjusted" (Participant 2)

"In the beginning I had a hard time adapting to Singlish. I couldn't understand it at all....But now there is no problem. I can understand most people. And I have learnt different expressions and different words...for example, when you go to McDonalds you have to say 'takeaway', in Canada you say 'to go'...." (Participant 3)

4.2 Factors

As shown in figure 3, two *Online Factors* emerged from our data analysis: 1) *Privacy Concerns* on Facebook usage, and 2) The existence of *Ties* in the online social network which can be classified into *Strong Ties* and *Weak Ties*. In the following, we briefly describe the factors and postpone the discussion on how these factors relate to the *Treatment* constructs until section 4.3.

Privacy concerns remain one of the key constructs used in the information systems research (Smith et al. 2011). None of the existing literature on cultural adaptation in the context of SNSs or online social networks usage has drawn attention to the issue of privacy concerns in spite of the fact that scholarly interest in privacy concerns have increased with the proliferation of ITs like SNSs.

Adapting the definition by Dinev and Hart (2006), we refer to privacy concerns as an individual's concerns about opportunistic behaviour related to the personal information he shares on SNSs. These concerns stem from users' uncertainty as to who access the information they disclose and how this information is used. Dinev and Hart (2006) in their study on e-commerce found that users who perceive the internet to be of high risk of other parties' opportunistic behaviour had greater concerns about privacy which negatively affects the willingness to disclose personal information on the internet.

The findings from our study find support in the study by Dinev and Hart (2006) as the two non-active users of Facebook among the participants cited privacy concerns as the factor which discouraged their active usage. These participants are given below:

“I know the dangers of privacy on Facebook so I don’t use it often.... I have set strict privacy settings to hide my visibility...” (Participant 1)

“I don’t use Facebook quite much because today there are a lot of intelligent search engines that can track all your activities....” (Participant 2)

However, from the privacy calculus perspective, when faced with the decision to disclose personal information, users are said to perform a privacy calculus whereby privacy concerns are weighted against the benefits of disclosing personal information, and the outcome of the privacy tradeoff informs their final behavior (Jiang et al. 2013). In section 4.3, we explain how the privacy calculus comes into play in terms of participants’ leveraging on their online social networks for acculturation based on our study findings.

Ties consist of strong ties and weak ties. The strong ties in the participants’ online social networks consisted of family and close friends in the home culture, and newly found close friends in the host culture. Through Facebook the participants interacted often with their new host culture friends as well as plan various social events. Our check on the Facebook profiles of some of the participants revealed that the strong ties usually appeared in most of the participants’ posted pictures. The weak ties of the participants on the other hand, consisted of Facebook groups (which can orient the sojourner about life in the host culture) and the friends of participants’ strong ties (i.e., the forbidden triad (Granovetter 1973)) in the host culture. Using the findings from our data analysis, we will explain the participants’ interaction with the two ties in their cultural adaptation process in the next section.

4.3 Treatment

In this section, we discuss how aforementioned factors relate to the *Treatment* constructs in figure 3 showing also how the treatment constructs enable the cultural adaptation of the sojourner. Our data analysis revealed 3 ways in which the participants leveraged their online social networks to achieve the 2 categories of *Treatment*: 1) enabling socialization and 2) knowledge exchange for *Social Treatment*, and 3) alleviating acculturative stress for *Emotional Treatment*.

4.3.1 Enabling Socialization

Socialization in the context of cultural adaptation can be viewed as the process whereby an individual learns to adjust to the host society. This involves learning the norms, values and the behaviour patterns of the society and adjusting one’s behaviour in conformity with them. Aside the sojourner’s personal exploration of the new social world he finds himself, there is no denying that new relations he builds will play a far more significant role in his socialization (or enculturation) to the new culture. By enabling socialization we consider the facilitative role SNSs (Facebook in this case) play in helping the sojourner build and maintain new relations in the host culture with whom he interacts and engage in various social activities that serve to orient (or socialize) him to the host culture.

Our findings revealed that Facebook was important in this regard firstly, by offering the sojourner the opportunity to maintain close relationships with new relations in the host culture as reflected in the following comments: *“I often sent private messages to the friends I don’t meet on daily basis just to keep in touch with them... If we happen to be online at the same time then we chat”* by participant 7. Second and more importantly, with their new found friends they planned offline social events via Facebook which provided an opportunity to socialize and interact with new people. This is buttressed by the following comments:

“We usually use Facebook to plan our events. For instance, recently we planned for a trip to Cambodia...I met new people and made quite few friends” (Participant 6)

“My friends informed on Facebook to go for an Australian friend’s birthday party on Facebook... I made new Europeans friends there” (Participant 5)

The influence that such new friends (maintained and managed through Facebook) in the host culture can have in the socialization of the sojourner is evident in this comment by participant 5: *“Sometimes my friends used some words I don’t understand, example: “see ya”, “take a cab”. I asked them to*

teach me. Now I understand and use them". This goes to indicate that through the new found friends, the sojourner may learn some of the behavioural patterns (in this case verbal expressions) of the host culture. The desire expressed by participant 5 as reflected in his comment: *"All my friends like cricket but I enjoy playing soccer...I am going to learn to play cricket so we can always play together to strengthen our friendship"*, also shows that sometimes the sojourner may even have to give up old interest and preferences and adopt that of his friends and by so doing he aligns his life to the host culture.

From the foregoing it is evident that the new relations, which constitute the strong ties of the sojourner in the host culture facilitates the cultural socialization of the sojourner as earlier claimed. Morrison (2002) in his study has also elaborated on the importance of strong ties on social integration. We thus argue that ***strong ties in the host culture have a strong influence on the socialization of the sojourner to the host culture***. Socialization of the sojourner leads to his adopting the values, norms and behaviors of the host society. An example above is the verbal behavior adjustment of participant 5. Thus ***socialization will lead to sojourners adaptation to the new culture***.

Following from the discussion in section 4.2, we argue that concerns about privacy may serve a barrier to using online social networks for socialization. This is supported by the fact that participants 1 and 2 who indicated high levels of privacy concerns 'added' only one friend (see Table 1) each to their Facebook friends list. Thus their concerns about privacy prevented their use of Facebook in building new relations in the host culture. In offline contexts, studies have also established relationship between high levels of privacy and decreased social capital (Buys & Bow 2002). This provides an insight for us to conclude that ***privacy concerns have a negative effect on using online social networks to support the socialization of the sojourner***.

4.3.2 Knowledge Exchange

We consider knowledge exchange as the sharing of information and content on SNSs in the form of posts (mostly text), photos, videos, etc that enable the sojourner to better comprehend the new cultural environment. Knowledge exchange can thus be viewed as supporting the socialization of the sojourner to the host culture.

Our findings revealed that weak ties as Facebook groups served as an important conduit for cultural knowledge exchange. This finding finds support in the following comments: *"Before coming to Singapore I joined one of the NUS exchange students groups. I asked the members about life in Singapore. Through the information they provided I learnt how the Singaporean society differs from that of my country, France...it helped me prepare accordingly"* (Participant 6). The comment further shows that information received through such groups can help alleviate all apprehensions and bolster the confidence of the sojourner making him primed for adjustment to life in the new. All the participants concurred on the importance of Facebook groups that orient sojourners about the host culture. An example of comments in this regard is as follows: *"Facebook groups where members share information about their experiences regarding a particular culture are important...They will serve as a good source of information to people interested in that culture, especially prospective visitors.."* (Participant 7).

Information could also be acquired through the strong ties (new friends in the host culture) and other weak ties as friends of friends (i.e., friends of new friends of the sojourner in the host culture) as reflected in the following response by participant 2: *"Sometimes I browse through the pictures of my Singaporean friends to know a bit about their social life. I am also able to see the activities and pictures of the connections of my friends...I see the clothes they put on, they food in the restaurants....this kind of give me a fair knowledge on what life in Singapore is"*. In regards to strong ties, however, cultural knowledge sharing occurred more in offline interactions since the strong ties represented the closest friends that the participants usually spent their day with. This is supported by

the following response: *“We sometimes share information about our countries concerning food, sports, etc.... But we do it more in offline conversations than through Facebook”* (Participant 4).

It is evident from the participants’ response that, regarding online social network, knowledge exchange occurred more through the weak ties than the strong ties of the participants. The difference in the strength of the relationship between the two ties and knowledge exchange is as indicated by the dashed right pointing arrow linking strong ties and knowledge exchange in figure 3. This finding is buttressed by claims in the literature that weak ties enable people to access new perspectives and diffuse information (Ellison et al. 2009). However, since the relationship between social ties and knowledge exchanged has been confirmed by several studies (e.g., (Chow & Chan 2008), (Hansen 1999)) we posit that ***both weak ties and strong ties facilitate knowledge exchange***.

Similar to the discussion in the previous section, privacy concerns may pose challenge to knowledge exchange. For participants 1 and 2 whose concerns about privacy prevented their active usage of Facebook, on occasions when they used Facebook, they indicated that their activities are only visible to their strong ties in their home country.

“I use private messages on Facebook when I communicate with my Swedish friends....I post pictures only to my friends and parents” (Participant 2)

“... I posted 10 pictures about my room on Facebook to my parents. I made sure they are all private so no one can see them” (Participant 1)

Even some participants who were active users of Facebook also expressed their privacy concerns in the following comments:

“I don’t usually post because anybody can see posts. I prefer to use messages” (Participant 3)

“I don’t like to join many Facebook groups because it makes my details shared among many people, so I join few” (Participant 8)

These comments indicate that privacy concerns may affect the activities of individuals on SNSs which in this case may include sharing of cultural-related information or joining Facebook-like groups where such information can be obtained. In section 4.2, we argued that privacy concerns may affect what people are willing to share. This position is also supported by Dwyer et al. (2007). Based on this support for our finding thus, we can conclude that ***privacy concerns negatively affect knowledge exchange***.

In sum, the foregoing discussions have shown that relevant knowledge obtained through weak ties as Facebook groups about the host culture can decrease the sojourners’ apprehensions about it and increase his confidence in adjusting to it. This thus serves to boost both the motivational CQ and behavioural CQ of the sojourner. Since these CQ dimensions have relevance to cultural adaptation, we contend that ***knowledge exchange has positive effect on cultural adaptation***.

4.3.3 *Alleviating Acculturative Stress*

Many stressors exist during the process of acculturation, which refers to the changes that groups and individuals undergo when they come into contact with another culture (Williams & Berry 1991). These include the feeling of loss resulting from the breaking of ties to old relations home country, language inadequacy, feeling of not belonging to the host society, etc., (Hovey & Magaña 2000). The term acculturative stress (Williams & Berry 1991) has been used to encapsulate these types of experiences. Simply defined, acculturative stress refers to “the stress that directly results from and has its source in the acculturative process” (Hovey & King 1996; Hovey & Magaña 2000). Several studies (e.g., (Hovey & Magaña 2000), (Hovey & King 1996)) have established that heightened levels of acculturative stress leads to depression and anxiety.

Only participants 4 and 5 indicated experience of stress after relocating to the host culture. This finding is seen their comments below:

“I feel homesick and a bit of stress especially when I come from the lab feeling tired...”
(Participant 4)

“My English is not good.... Sometimes in class I don't understand the professor when he speaks... The food here is spicy....Food, homesickness, communication problem; these are the things that give me stress.” (Participant 5)

Strong ties in the home culture especially in the case of participant 8 played a key role in helping these participants deal with the stress of adjusting to life in the host culture. The participants' responses which support this finding are as follows:

“Because of stress I talk to my family everyday through Facebook. My wife and little child are not here with me so I feel homesick all the time. I use video chat on Facebook so that they see me, I also see them. I also talk to my mother and father about some of the things that give me stress. When I talk to them they encourage me. This helps me overcome stress.” (Participant 5)

“When I feel homesick or stressed out, I use Facebook to destress. I chat with my friends back home. I also observe the activities and browse their pictures. It's interesting, it keeps your mind away from the work” (Participant 4)

This is an indication that bonding social capital such as emotional support from strong ties as argued by (Ellison et al. 2009) can help the sojourner overcome stress. The significant impact of the social support from strong ties as family members on alleviating acculturative stress has been confirmed in several studies (e.g., (Hovey & King 1996);(Hovey & Magaña 2000); (Vega et al. 1991)). Resultantly, we can confirm ***the existence of an effectual relationship between strong ties and low levels of acculturative stress.***

Since stress can impact the wellbieng (as defined in this study) of an individual, overcoming stress (as in the case of the 2 participants) means the wellbeing of the individual can be boosted. Since cultural adaptation is measured in part by wellbeing, we contend that ***alleviating acculturative stress will positively impact the cultural adaptation of the acculturating individual.***

5 CONCLUSION

5.1 Discussion

Adopting social network theory and social capital theory as the theoretical lens of this research, and using the findings from our data analysis, we have created a model to explain the cultural adaptation process of sojourners with reference to their interactions with offline and online social networks. Further, we used this model to specifically address our research question on how sojourners use online social networks to adapt to a new culture.

The findings of the study showed that sojourners leverage online social networks to 1) enhance their socialization with people of the host culture, 2) acquire and share knowledge, and 3) alleviate stress in their cultural adaptation process. Our findings emphasize the importance of SNSs like Facebook in sojourners' adaptation to a new culture in the following ways:

First, prior to or after leaving the home culture the sojourner can improve his knowledge about the new culture through his preferred SNSs by joining relevant 'groups' (e.g., Facebook groups) dedicated to orient foreigners about the host culture. He can learn a great deal about the host culture from locals as well as foreigners who have lived in that culture. Such knowledge, according to Adelman (1988) is vital as it helps the sojourner deal with apprehensions and anxieties, and develop realistic expectations about the new culture. These 'groups' also provide the sojourner an opportunity to make new friends in the host culture. This is particularly important since it may be difficult for the sojourner to establish an online connection with specific individuals of the host culture at the initial stages of adjusting to life in the new culture.

Second, after relocating to the host culture, SNSs serve a good platform for the sojourner to enhance his socialization in the host culture through frequent interaction, planning offline social events, etc with new friends. This helps him maintain and solidify offline relations in the new culture, developing them into strong ties. According to Ellison et al. (2007), such is the purpose of SNSs like Facebook. In their study of international students of USA's educational and cultural adaptation, Ryan et al. (2011)

found that Facebook provided a good platform for socialization between students, and also, between faculty and students which helped some students fight social isolation. Most students valued the opportunity to interact with each other as well as plan social events through Facebook. These findings support the vital role SNSs play in enhancing the sojourner's socialization to a new culture.

Finally, SNSs help the sojourner to maintain and keep in touch with strong ties in the home culture who can help him deal with stress, especially at the initial stages of adjusting to life in a new culture. Support and encouraging messages from sojourners old ties especially those who have been through similar experience can help him overcome feelings of being depressed (Adelman 1988). In reviewing studies on immigration adaptation, (Kim 1987) concluded that dependence on ethnic ties at the initial stages of cultural adaption were less stressful than interactions with locals of the host culture. This emphasizes the vital role the sojourners' strong ties in the home culture play in his cultural adaptation process and hence, the importance of SNSs which facilitate the sojourner's connection with these ties.

In spite of the above importance of SNSs, our study also brought to the fore privacy concerns about SNSs. While some participants' concern about privacy prevented them from leveraging their online social networks in adapting to the new culture, others still actively engaged with their online networks which helped their adaptation to the new culture. These findings confirm the privacy calculus perspective explained earlier. We, therefore concur with Wang et al. (2011) that different users may have varying priority or emphasis with regard to their privacy, which may affect their SNS usage for any purpose (including cultural adaptation).

5.2 Contributions

This study makes important theoretical and practical contributions. First, it contributes to the sparse literature on the support provided by online social networks in cross-cultural adaptation (Ye 2006) by using social network theory to study how they can be utilized in this context. Second, it also contributes to the paucity of research on SNSs use among sojourners (Lin et al. 2012) by exploring how a sojourner can leverage online social networks developed through Facebook in cultural adaptation. Finally, it introduces a model which can be used to explain the cultural adaptation process of sojourners through their interactions with online and offline social networks.

Aside the theoretical contributions, this study also provides significant insights to sojourners regarding how they can effectively use SNSs for cultural adaptation. More importantly, it has identified different types of social ties and provided exemplar ways the sojourner can leverage these ties in adapting to a new culture. Academic institutions may also find our study useful in terms of leveraging SNSs to enhance new foreign students' cultural and educational adaptation.

5.3 Limitations and Future Work

In spite of the above contributions, the study also has some limitations. First, the model (see figure 3) for cultural adaptation we introduced is based on the definition of cultural adaptation as used in this work and thus, it may not be applicable to other definitions of cultural adaptation. Second, since our research subjects were students, it would have been appropriate to explore the argument by Ali and Kohun (2009) that students with similar cultural background tend to congregate together, thereby impeding their efforts to socially integrate with other students and, consequently, increasing their feeling of social isolation. However, this was not possible because our sample size was small and hugely diverse.

In addition to addressing the above limitations, we also recommend future research empirically test our findings concerning ways sojourners use online social networks in cultural adoption. Moreover, future work may also consider how other social media can be used in cultural adaptation.

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