Contribution of Social Media Use at Work to Social Capital and Knowledge Sharing: A Comparison between Chinese and Thai Employees

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Abstract—The purpose of this research is to explore the relationship between social media use at work and knowledge sharing behavior. This study will also do a comparative study between China and Thailand. Social capital was introduced as a mediating variable. To further study, this study selected trust, social networking, and shared language to represent the three aspects of social capital. Convenient sampling was employed to collect data from the multinational corporations; partial least square regression was used in analyzing the data. After analyzing, positive relationship between social media use at work and all mediating variables (trust, social networking and shared language) was discovered. However, the positive relationship between mediating variables and knowledge sharing is different according to the different culture. By the means of this article, the cross-culture analysis illustrates the difference between Thai and Chinese employees' knowledge sharing behavior, which provides an empirical evidence for corporations to build a culture-based social media use policy.

Keywords-social media; knowledge sharing; social capital; cross-culture

I. INTRODUCTION

Many scholars have proved that social media use intensity at work has a positive effect on employees' work performance [34]; [7]. Knowledge about work tasks, products, competitors, services, and customers is a precious resource that requires to be shared broadly throughout the organization [17]. Knowledge sharing is an essential process for enhancing work performance [47]. Cultural differences among countries may lead to certain differences in individuals' knowledge sharing behavior [33]. This behavior is formed in a certain cognitive backgrounds, but many literatures are inclined to apply a standard understanding on knowledge sharing [23]; only a few of them focus on this field. To fill this gap, this study will conduct a comparative study between China and Thailand based on their different cultural contexts in order to explore knowledge—sharing behavior.

This paper is organized as follows: in the first part, the study reviews literature on social media use at work, social capital, and knowledge sharing. Based on these reviews and theories, hypotheses will be proposed. In the second part, the study explains the methodology about how to collect, analyze and illustrate the data. Next, the results were summarized and explained in detail. In the last part, the research provides some implications to the multinational corporate. The limitations and future study suggestions are also expanded in this part.

II. LETERATURE REVIEW

A. Social Media

Owing to the speedy rise of social media and their users, the demand for investigating the use of social media for work purposes has appeared [23]. More and more researchers and practitioners are focusing on social media use in the workplace. Social media provide tools to communicate, connect, and information feedback for the socially connected person within a community, further, will facilitate trust, and knowledge sharing within that community [20]. Leidneret et al. [28] discovered that employees' use of Facebook at work plays a important role in retention and organizational commitment, because they can keep in touch with family, friends, and other colleagues if necessary in the workplace. Moqbel et al. [34] also found that social media use intensity was positively associated with job performance and organizational commitment through the mediating effect of job satisfaction.

B. Social Capital

On the social and organizational level, social capital represents the norms, networks, trust and mutual understanding that bind the members of communities and social networks together, and incentive participants take more effective actions to pursue shared objectives [1]. For the purpose of this article, the social capital concept proposed by Nahapiet and Ghoshal [35] was used. They separated social capital into the structural, the cognitive, and the relational dimensions. In order to make social capital easier to understand, for each dimension, the study chose one facet to represent following the research by

Cao, Guo, Liu and Gu [6]. According to their research, social networking, shared language, and trust were selected to represent the structural dimension, the cognitive dimension and the relational dimension respectively.

C. *Social Capital (trust, social networking, shared language) and Knowledge Sharing*

Cao et al. [5] mentioned that individual's contributions are voluntary behavior in virtual community and hard to measure, trust seems to play an important role in voluntary behavior such as knowledge contribution and integration. Trust can increase the dialogue between people and the interpersonal communication [40]. As to individuals, trust enables them to exchange information freely, which is the sticking point for the successful collaboration [39]. When individuals trust each other, they may engage in knowledge sharing behavior to a greater extent [2]. Thus hypothesis 1 is suggested:

H1: Trust is positively related to knowledge sharing

In the practice of knowledge management, it's important to know what the other people know in one's social networking and acquire knowledge from them, "the better people know other person the more likely that they can obtain knowledge from them" [2]. Individuals that have built an extensive social network will actively participate in knowledge contribution [8]. Close personal relationships will cultivate the organization members' sense of belonging, and ensure reliability [26]. Hence, social cohesion can have a positive effect on knowledge sharing, mainly through influencing the willingness of individuals to dedicate time and effort to assisting, as well as learning from others [38]. Therefore hypothesis 2 is suggested:

H2: Social networking is positively related to knowledge sharing

Leana and Van Buren [27] posited that cognitive social capital can help team members communicate and cooperate effectively, and can also help them express and understand shared knowledge better. The people who owing the same knowledge structure can combine the knowledge efficiently and effectively, since similar knowledge structure supply a clearly direction on how information should be organized [43]. People's ability to access information and exchange ideas is promoted because of shared language [6]. The more common language cross sections and communication forms the people possess, the more likely they may join in the knowledge integration process [35]. Therefore hypothesis 3 is suggested:

H3: Shared language is positively related to knowledge sharing

D. *Social Media Use at Work and Social Capital (trust, social networking, shared language)*

Trust is important in decreasing contracting transaction costs [15]. The more exact, complete, seasonable, and effective the interaction, the more information can be shared, and in the long run, mutual trust can be achieved, higher levels of teamwork accomplished at the same time [36]. Social media allows for effective communication [42]. Instant messaging embedded in social networking tools also allows the communication to be efficient and effective [36]. According to this, hypothesis 4 is proposed:

H4: Social media use at work has a positive effect on trust.

Social networks can be defined as the structure of the direct and indirect relationships that people have established [16]. Social media are widely applied to preserve and reinforce interpersonal relations [6]. DiMiao et al. [10] pointed out that the main reason that motivates employees to use social media is that it can provide an easier and more comfortable way for them to communicate with each other without the embarrassment caused by face-to-face interaction. Social media are effective in forming working relationships because of the spontaneous and informal interaction they instigate [19]. Therefore, the hypothesis 5 is presented as following:

H5: Social media use at work has a positive effect on social networking.

Shared language can be used to handle the necessity of day-to-day interactions [29]. In an online community, members commonly employ symbols, wording, terms, and narrative forms, and these factors comprise their shared language, which allows them to communicate effectively with others [45]. Social media encourage users to form communities rapidly [42]; that is, they provide an effective way for cultivating a shared language through communities. Therefore, hypothesis 6 is proposed that:

H6: Social media use at work has a positive effect on shared language.

E. *Hofstede's Culture Dimensions*

- Power distance is a dimension that is used to measure the distance between less and more powerful members of institutions and organizations [8]. High power distance score countries seem to pay more attention to hierarchy and organizational structure. In high power distance countries, organizational hierarchy tends to be more rigid and centralized, decision-making rights are centralized on higher-level managers. Supervision and rules seems to be the key elements in such organizations. As to low power distance culture, Shane [41] summarized that the characteristics of low power distance organizations tend to be more organic, have high

information-processing capabilities and informal communication between supervisors and subordinate. Efrat [11] claims, such organizations are inclined to decentralize the power and the structure is more flat, with control system mainly based on trust.

- Uncertainty avoidance—this defines as the extent to which people feel threatened by ambiguity and uncertainty and try to stay away from situations that cause them [8]. They also proved that high uncertainty avoidance culture need rules and formality to structure life, which means, the experts under this culture tend to search for a belief and truth. In high uncertainty avoidance society, organizational cultures prefer a highly regularized conception of management and a hierarchical organizational structure [21]. Whereas, low uncertainty avoidance societies tend to be more open to diversity, change and new ideas [11]. People within this society have a more active attitude to health [8].

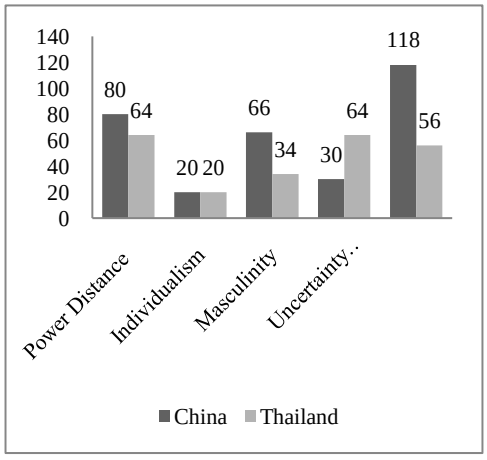

Figure1: Hofstede culture dimension between China and Thailand http://geert-hofstede.com/china.html

F. Compare Thailand and Chinese culture dimension

As we can see the Figure 1, the power distance score of China is higher than Thailand (80 vs. 64), which means that the hierarchy and supervision are more rigid in Chinese culture. Thus, compared to Thai employees, Chinese employees are more prone to fear speaking openly and are less trust their coworkers, they also think tight control of their supervisors are more reasonable. About the uncertainty avoidance, China possesses lower UAI scores than Thailand (30 vs. 64). Under this circumstance, Chinese people think the ambiguous is more reasonable and acceptable compared with Thai people. In organizational settings, the benefit of a strategic reciprocal strategy is uncertain, because there is a risk of getting valuable knowledge in return [31]. Employees from low uncertainty avoidance culture are comfortable with ambiguous and more open to change, so even there are risks to sharing knowledge; they may more willing to take the risks compared to Thai employees. Based on this information, whether the role of social media use at work on social capital and knowledge sharing tend to be the same or different based on these aspects of culture differences need to be explored. This leads to the following research question:

> RQ: Does the contribution of social media use at work on social capital and knowledge sharing differ or the same between Chinese and Thai employees?

III. METHODOLOGY

A. Sample collection

This research focus on the sample of employees from multinational corporations that have subsidiaries in Thailand and China. Employees of these firms are selected because different corporate may possess their own corporate culture. Convenient sampling method was used to obtain the data in this research. Self-administer questionnaire survey was used for data collection. At the beginning the employees of human resource department are contacted, and then let them distributed the questionnaire to other departments of the targeted companies. The original English version questionnaire was translated into Chinese and Thai by the native speaker. Two rounds of pilot study were conducted, the result show that the questionnaires can be clearly understood by the native speakers, no deviation was found. Total of 150 questionnaires were distributed to employees of Thai company and 120 questionnaires were returned; on the other hand, total of 185 questionnaires were distributed to employees to Chinese company, 149 questionnaires were returned. Thus, the response rates were 80% and 81 respectively. Table 1 present the all sample statistics description.

TABLE I. STATISTICS DESCRIPTION: ALL SAMPLE

Nationality	*Thailand: 120 (45%)* *China: 149 (55%)*
Age	Mean: 28.35 Standard deviation: 6.281
Marital Status	Single: 227 (84%) Married: 42 (16%)
Gender	Female: 164 (61%) Male: 105 (39%)
Education	Below bachelor's degree: 7 (3%) Bachelor's degree：129 (48%) Master's degree: 127 (47%) Doctoral degree: 6 (2%)
Type of Job	Part time: 14 (5%) Full time: 255 (95%)

Work experience(years)	0-3: 166 (62%) 4-6: 54 (20%) 7-10: 22 (8%) 11-15: 16 (6%) Over 16: 11 (4%)
Are you allowed to use social media at work?	Allowed: 242 (90%) Not allowed: 26 (10%)
To what extent the social media use is related to work?	Not related: 25 (9%) Just a little: 60 (22%) Moderate: 79 (30%) Pretty much: 75 (28%) Highly related: 30 (11%)

B. Measures

The dependent variable knowledge sharing was measured using the five items developed from Ma and Yuen [26]. The independent variable social media use at work was measured using the scale developed by Kankanhalli et al. [20]. Social networking was measured using an adapted scale from Chow and Chan [7]. Trust was measured using Levin and Cross's study [25]. Shared language was measured using a scale developed based on Nahapiet and Ghoshal [29]. The control variables include age, gender, educational level and to what extent the employees use social media related to work. Age was measured in years, gender was measured as a dummy variable (females = 0; males 1), education was measured using ordinal scale (1 = below bachelor'sdegree; 2 = bachelor's degree; 3 = master's degree; 4 = doctoraldegree).The last variable to what extent social media use is related to work was measured using ordinal scale ranging from not related (1) to very related (5).

IV. RESULTS

A. Analytical Method

First, reliability test was measured by using composite reliability coefficients and Cronbach's alpha. The results were shown in Table 4, all the values of Cronbach's alpha and composite reliability coefficients were exceeded the recommended value 0.7 [12]. Thus, the reliability was confirmed. Secondly, the latent variables' convergent validity was tested applying factor loadings, the results are represented in Table 5, all of the results are more than the recommended value 0.5 [16].Third, discriminate validity was tested using average variance extracted (AVE). In order to let the discriminate validity exist, each construct's square root of the AVE must more than other correlations related to that construct [12].The results as shown in table 6 are all met what we expected. For the purpose of testing the possibility of multicollinearity that is to test whether variables in multiple regression models are highly relevant or not among indicators, the full Variance Inflation was performed. The full VIFs of this data vary from 1.178 to 1.485, all of them are satisfied the recommended value of 3.3 [33].

B. Hypothesis testing

The study use WarpPLS5.0 analysis to calculate the standardized coefficient, P-values and R-squared. Bootstrapping resembling method was used in PLS analysis with 100 subsamples as recommended by Efron [11]. The results were classified on the basis of different country; the consolidated data were also included. Table III and IV represent the combined data of Thai and Chinese employees; Table V and VI are the comparative data of the two countries. In accordance with the data results, we can summarize the hypotheses whether support or not as following: Hypothesis 1 was supported in the all sample data and Thai sample, but not supported in Chinese sample. Hypothesis 2 was supported in the all sample data and Chinese sample, but not supported in Thai sample. Hypothesis 3 was supported in all sample data and Chinese sample, but not supported in Thai sample. Hypothesis 4, 5, and 6 were supported in the three sample data.

TABLE II. COMPOSITE RELIABILITY COEFFICIENTS AND CRONBACH'S ALPHA

Reliability Indicators	*SW*	*TRU*	*SN*	*SL*	*KS*
Composite reliability	0.879	0.898	0.912	0.900	0.937
Cronbach's alpha	0.794	0.857	0.856	0.834	0.916

Note: SW= social media use at work, TRU= trust, SN= social networking, SL= shared language, KS= knowledge sharing

TABLE III. ALL SAMPLES STANDARD COEFFICIENT AND R-SQUARED

	Dependent variable		
	Trust	Social networking	Shared language
Social media use at work	0.433***	0.651***	0.465***
Control variables			
Gender	0.003	-0.007	0.144**
Age	-0.068	-0.076*	-0.082
Education	-0.064	-0.063	0.031
Social media use is related to work	0.055	-0.002	0.003
R-square	0.22	0.44	0.25

Notes: *** p<0.001; ** p<0.01; * p<0.05

TABLE IV. ALL SAMPLES STANDARD COEFFICIENT AND R-SQUARED

	Dependent variable
	Knowledge sharing
Trust	0.187***
Social networking	0.272***
Shared language	0.400***
Social media use at work	0.049
Control variables	
Gender	-0.027
Age	-0.025
Education	-0.035
Social media use is related to work	0.045

R-square	0.56

Notes: *** p<0.001; ** p<0.01; * p<0.05

TABLE V. CHINESE AND THAI SAMPLE STANDARD COEFFICIENT AND R-SQUARED

	Dependent variable	
	Knowledge sharing	
	Chinese sample	Thai sample
Trust	0.091	0.542***
Social networking	0.221*	0.127
Shared language	0.574***	0.057
Control variables		
Gender	-0.114**	0.017
Age	-0.019	-0.008
Education	-0.039	-0.072
Social media use is related to work	0.063	-0.017
R-square	0.64	0.49

Notes: *** p<0.001; ** p<0.01; * p<0.05

V. DISCUSSION AND CONCLUSION

A. Results Summary

The purpose of this study is to delve into the relationship between social media use at work and knowledge sharing. Through observing the results by comparing the results between Chinese and Thai sample, the positive relationships between social media use at work and all mediating variables trust, social networking, and shared language were supported. These results are consistent with Cao et al., [6]'s research. In their research, the similar results are found under the university students' backgrounds. The research also found supports about the role of social media use at work on social capital and knowledge sharing in employees' sample. The research also found the three mediating variables were all positively related to knowledge sharing.

When separate the model analysis for Thai and Chinese samples, there are some inconsistency in the findings. In accordance with the results of Chinese sample, the positive relationship between social networking and knowledge sharing was not supported. Since China is a relatively high power distance country (80) more than Thailand, which means the hierarchy and supervision are rigid. The members of communities created by social media in workplace are loosely connected and all employees are included in the superior-subordinate relationship. Chinese employees prone to fear speaking openly and may hard to trust others. As a consequence, the social networks between employees are difficult to establish, further, knowledge transfer is not an easy thing without mutual trust. According to the results of Thai sample, no direct relationship was found between shared language and knowledge sharing. Thailand is a high uncertainty avoidance country compared to China (64 vs. 30). The employees under this culture background can't tolerate uncertainty situation. If uncertainty exists, it would be a barrier for communicating and forming shared language, so as to the knowledge sharing behavior.

Implications, limitations and future study sugegstions

The research provides the contribution to prior studies on the role of social media use at work on knowledge sharing. The previous studies mainly focus on social media use at work affects knowledge sharing from the perspective of one country. This article conducted an inter-regional and cross-cultural research on how social media use at work affects knowledge sharing. It also provides a new illustration for future knowledge sharing research from cross-cultural perspective. The previous research also mainly chooses the students as research sample, this study from the aspect of multinational enterprises and select employees as research sample, through analyzing, the study discovered that diversity of social media use policies should be emphasized to motivate employees from different culture backgrounds.

First, convenient sampling was used in this study. Because the sample was not selected randomly, sampling bias can be possible [42].Because this study only collected data from four province of china and two province of Thailand, so the future study can extend the sample size and collect data from other regions to further develop this research. Second, the self-reported survey may also appear some bias [3].

In the future study, first, the sample size can be extending and the data can be collected from other regions to develop this research. Second, this study only use power distance and uncertainty avoidance to explain the reason why social networking and shared language are not related to knowledge sharing in Chinese and Thai sample, other Hofstede's culture dimension is not considered. So, in the future study, the other dimension can be explored to explain the reason.

TABLE VI. CHINESE AND THAI SAMPLE STANDARD COEFFICIENT AND R-SQUARED

	Dependent variable					
	Trust		Social networking		Social networking	
	Chinese sample	Thai sample	Chinese sample	Thai sample	Chinese sample	Thai sample
Social media use at work	0.446***	0.380***	0.632***	0.548***	0.514***	0.220**
Control variables						
Gender	0.032	-0.058	0.021	-0.102	0.224***	-0.017
Age	-0.102	0.053	-0.120*	-0.065	-0.058	-0.077
Education	-0.038	-0.164*	0.003	-0.180*	0.031	-0.240*
Social media use is related to work	0.001	0.293***	-0.009	0.200*	0.013	0.141
R-square	0.21	0.38	0.42	0.52	0.32	0.21

Notes: *** p<0.001; ** p<0.01; * p<0.05

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