

An Analysis of Social Networks Usage for Information Communication in Business Organization

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Abstract

These objectives of this study are to investigate the behavior of using social networks for information communication in the business organization and to analyze the factors affecting the use of social networks for downward, upward, and horizontal business communication. Theory of Reasoned Action (TRA) is employed as the framework for this study. The data was collected from four hundred employees in business companies in Bangkok, Thailand. The data analysis methods include descriptive statistics, factor analysis, and inferential statistics. The research hypotheses were tested by using multiple regressions. The results suggest that the difference between patterns of communication using social networks and patterns of communication not using social networks are factors of confidence, comfort, convenience, care, concern, subjective norm from supervisors, friends, self and social environment.

Key words: *Social networks, information communication, Theory of Reasoned Action, patterns of communication*

JEL Classification: *M 10, M19*

1. Introduction

Nowadays, there has been extensive usage of social networks such as Facebook, Line, WhatsApp, Skype, Hangout, Twitter, Google+, Instagram, etc. for information communication in the business organization. Oinas-Kukkonen, Lyytinen, and Yoo (2010) suggested that there is a need for future research on social networks to examine how network awareness changes the behaviors of users, teams, or organizational processes. The purpose of this study is to investigate the factors affecting the difference between patterns of communication using social networks and not using social networks.

2. Literature Review

Studies on social networks have previously been conducted in fields like sociology and anthropology for decades (Oinas-Kukkonen, Lyytinen, and Yoo, 2010). Recent developments in information technology provide a rich opportunity to investigate some assumptions and findings concerning the structure and behavior of social networks. As the results, there have been increasing research on social networks such as the design and uses of information technology in social contexts and their impacts on organizations (Agarwal et al. 2008; Wasko and Faraj 2005), as well as how they shape end-user behaviors (Fogg and Iizawa 2008; Steiny 2009; Oinas-Kukkonen and Harjuma 2009).

Kruaysawat (2010) analyzes the research on factors affecting the behavior of online social networking. The findings include social norms of social network users online, personal characteristics, motivation and the ability of individual, attitudes about trust, system security and privacy, entertainment value, benefit from the use of social networking online.

3. Methodology

3.1 Research Questions

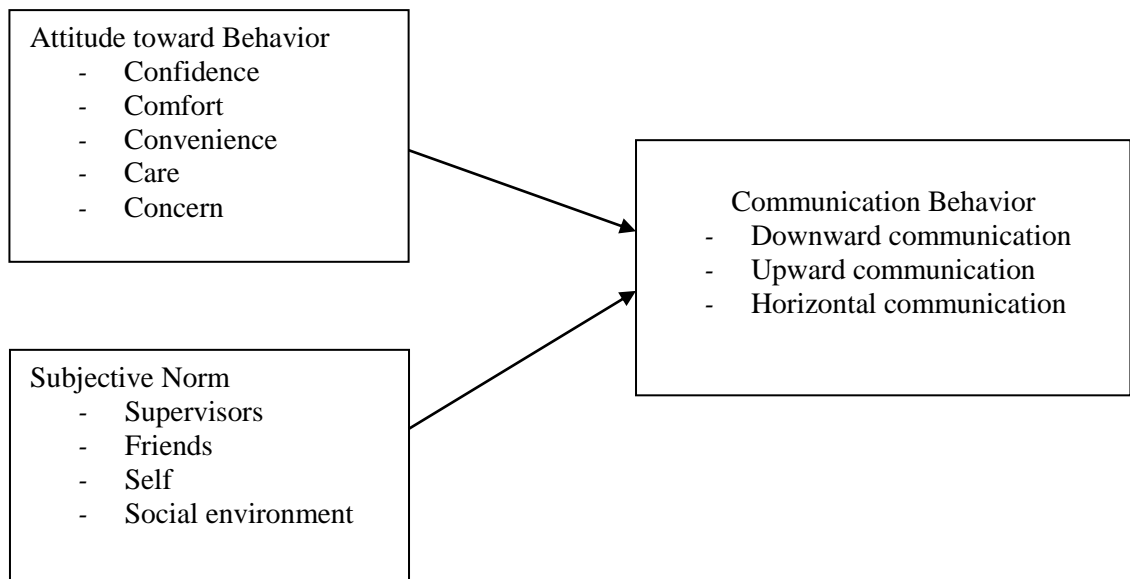
The major research question for this study is to find out whether the uses of social networks affect the behavior of information communication in the business organization. In this study, the behaviors of information communication under investigation include downward communication, upward communication, and horizontal communication.

3.2 Modeling Volatility

These objectives of this study are to investigate the behavior of using social networks for information communication in the business organization and to analyze the factors affecting the communication patterns of social networks usage. Theory of Reasoned Action (TRA) is employed as the framework for this study.

The Theory of Reasoned Action (Fishbein & Ajzen, 1975) suggests a person's behavioral intention (BI) depends on the person's attitude about the behavior (A) and subjective norms (SN) in which $BI = A + SN$.

The research hypotheses were tested by using multiple regression. The model used for the analysis is as follows:



3.3 Data

In this study, the data was collected online from four hundred employees who use social networks for business communication in business companies in Bangkok, Thailand during January 2015. The study employed judgmental sampling method for data collection. The data analysis techniques include descriptive statistics, factor analysis, and inferential statistics. The research hypotheses were tested by using multiple regressions.

The self-administered research instrument was developed using five-point likert scale ranking from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was pretested and analyzed for reliability using Cronbach's alpha. The construct validity was analyzed using factor analysis.

4. Results and Discussion

The study found that the majority of the respondents use Line (30.89%), Facebook (25.66%), and Instagram (12.48%). Other types of social networks are used by less than 10% the respondents such as Whatsapp (8.97%), Skype (7.57%), and Google+ (7.18%). The respondents reported only 39% of direct business communication from using social networks.

The results of hypotheses testing in this study are as follows.

H1: Attitudes and subjective norms have influences on communication behavior of company employees using social networks.

The first hypothesis is tested for the three types of information communication including downward communication, upward communication, and horizontal communication. Therefore, the hypothesis consists of three sub-hypotheses.

H1.1 Attitudes and subjective norms have influences on downward communication behavior of company employees using social networks.

Table 1: The results of downward communication behavior using social networks

Downward communication behavior using social networks = 0.807 + 0.275 Confidence + 0.339 Friends							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.807	.233		3.468	.001	
	Confidence	.275	.058	.224	4.775	.000	.910
	Friends	.339	.049	.327	6.966	.000	.910
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		Durbin-Watson	
1	.449 ^a	.202	.198	.72452		1.726	
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	52.671	2	26.336	50.170	.000 ^a	
	Residual	208.397	397	.525			
	Total	261.068	399				

From Table 1, the only attitude factor influencing downward communication behavior using social networks is the confidence factor. The only subjective norm factor influencing downward communication behavior using social networks is the subjective norms toward friends. The results suggested that company employees tend to use social networks for downward business communication if they have confidence and if using social networks for downward business communication is accepted by their friends.

H1.2 Attitudes and subjective norms have influences on upward communication behavior of company employees using social networks.

Table 2: The results of upward communication behavior using social networks

Upward communication behavior using social networks = 0.798 + 0.250 confidence + 0.360 Comfort - 0.242 Convenience + 0.330 Supervisors + 0.137 Friends - 0.149 Self							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
	(Constant)	.798	.367		2.177	.030	
	Confidence	.250	.063	.195	3.953	.000	.711
	Comfort	.360	.083	.244	4.343	.000	.551
	Convenience	-.242	.091	-.139	-2.656	.008	.637
	Supervisors	.330	.047	.329	7.054	.000	.798
	Friends	.137	.051	.127	2.702	.007	.786
	Self	-.149	.059	-.120	-2.514	.012	.764
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		Durbin-Watson	
1	.565 ^a	.319	.309	.70423		2.026	
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	91.364	6	15.227	30.704	.000 ^a	
	Residual	194.903	393	.496			
	Total	286.267	399				

From Table 2, the attitude factors influencing upward communication behavior using social networks are the confidence, comfort, and convenience factors. The subjective norm factors influencing upward communication behavior using social networks are the subjective norms toward supervisors, friends and themselves. The results suggested that company employees tend to use social networks for upward business communication if they have confidence, comfort, and convenience and if the use of social networks for upward business communication is accepted by their supervisors, their friends, and themselves.

H1.3 Attitudes and subjective norms have influences on horizontal communication behavior of company employees using social networks.

Table 3: The results of horizontal communication behavior using social networks

Horizontal communication behavior using social networks = 0.882 + 0.278 Comfort + 0.188 Friends + 0.253 Social environment							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.882	.277		3.180	.002	
	Comfort	.278	.066	.209	4.218	.000	.794 1.259
	Friends	.188	.048	.193	3.913	.000	.805 1.243
	Social environment	.253	.059	.216	4.268	.000	.768 1.303
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson		
1	.474 ^a	.224	.219	.67214	2.145		
Model	Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	51.788	3	17.263	38.212 .000 ^a		
	Residual	178.899	396	.452			
	Total	230.688	399				

From Table 3, the only attitude factor influencing horizontal communication behavior using social networks is the comfort factor. The subjective norm factors influencing horizontal communication behavior using social networks are the subjective norms toward friends and social environment. The results suggested that company employees tend to use social networks for horizontal business communication if they have comfort and if using social networks for horizontal business communication is accepted by their friends and social environment.

Table 1 to Table 3 shows the results for the first hypothesis: attitudes and subjective norms have influences on communication behavior of company employees using social network. The results suggested that attitudes and subjective norms have influences on communication behavior of company employees using social network. However, influencing attitudes and subjective norm factors vary for each of the three types of information communication including downward communication, upward communication, and horizontal communication.

The second hypothesis concerns communication behavior of company employees not using social networks. There are three sub-hypotheses to be tested for the three types of information communication including downward communication, upward communication, and horizontal communication.

H2: Attitudes and subjective norms have influences on communication behavior of company employees not using social networks.

H2.1 Attitudes and subjective norms have influences on downward communication behavior of company employees not using social networks.

Table 4: The results of downward communication behavior not using social networks

Downward communication behavior not using social networks =								
1.500 + 0.253 Comfort -0.168 Supervisors + 0.323 Friends								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.500	.296		5.061	.000		
	Comfort	.253	.071	.177	3.552	.000	.867	1.154
	Supervisors	-.168	.048	-.173	-3.531	.000	.893	1.120
	Friends	.323	.054	.309	6.030	.000	.820	1.220
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		Durbin-Watson		
1	.386 ^a	.149	.142	.75870		2.061		
Model		Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	39.853	3	13.284	23.078	.000 ^a		
	Residual	227.945	396	.576				
	Total	267.797	399					

From Table 4, the only attitude factor influencing downward communication behavior not using social networks is the comfort factor. The subjective norm factors influencing downward communication behavior not using social networks are the subjective norms toward supervisors and friends. The results suggested that company employees have a tendency not to use social networks for downward business communication if they have comfort and if it is the norms of their supervisors and friends.

H2.2 Attitudes and subjective norms have influences on upward communication behavior of company employees not using social networks.

Table 5: The results of upward communication behavior not using social networks

Upward communication behavior not using social networks = 3.869 - 0.244 Confidence -0.280 Supervisors + 0.275 Friends +0.161 Self							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.869	.278		13.902	.000	
	Confidence	-.244	.059	-.210	-4.155	.000	.829
	Supervisors	-.280	.047	-.308	-5.994	.000	.801
	Friends	.275	.049	.280	5.612	.000	.847
	Self	.161	.056	.143	2.885	.004	.856
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		Durbin-Watson	
1	.408 ^a	.167	.158	.70597		2.013	
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	39.339	4	9.835	19.733	.000 ^a	
	Residual	196.866	395	.498			
	Total	236.204	399				

From Table 5, the only attitude factor influencing upward communication behavior not using social networks is the confidence factor. The subjective norm factors influencing upward communication behavior using social networks are the subjective norms toward supervisors, friends and themselves. The results suggest that company employees tend not to use social networks for upward business communication if they have confidence and if it is accepted by their supervisors, friends, and themselves.

H2.3 Attitudes and subjective norms have influences on horizontal communication behavior of company employees not using social networks.

The results of testing the hypothesis H2.3 are shown in Table 6. From Table 6, the only attitude factor influencing horizontal communication behavior using social networks is the concern factor. The only subjective norm factor influencing horizontal communication behavior not using social networks is the subjective norms toward themselves. The results suggest that persons tend not to use social networks for horizontal business communication if they have concern and if it is accepted by them.

Table 6: The results of horizontal communication behavior not using social networks

Horizontal communication behavior not using social networks = 4.323 - 0.153 Concern – 0.033 Self							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.323	.271		15.982	.000	
	Concern	-.153	.054		-2.854	.005	.992
	Self	-.033	.055		-.610	.543	1.008
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson		
1	.143 ^a	.020	.015	.74294	1.937		
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	4.569	2	2.284	4.138	.017 ^a	
	Residual	219.131	397	.552			
	Total	223.699	399				

Table 4 to Table 6 shows the results for the second hypothesis: attitudes and subjective norms have influences on communication behavior of company employees not using social networks. The results suggest that attitudes and subjective norms have influences on communication behavior of company employees not using social networks. However, influencing attitudes and subjective norm factors vary for each of the three types of information communication including downward communication, upward communication, and horizontal communication.

5. Conclusions and Recommendations

This study provides empirical evidence on the effects of the attitudes and subjective norms on communication behavior of company employees in both cases of using and not using social networks. The results suggested that attitudes and subjective norms have influences on communication behavior of company employees in both cases. However, influencing attitudes and subjective norm factors vary for each of the three types of information communication including downward communication, upward communication, and horizontal communication. The results are consistent with the frameworks of TRA.

Future research may be conducted using the extension models of TRA including Technology Acceptance Model or TAM (Davis, 1989) and the Unified Theory of Acceptance and Use of Technology or UTAUT (Venkatesh et al. 2003) to extend the factors under investigation. Since information technology has rapidly evolved over time, it may be interested to investigate all aspects concerning organizational, technical, social, and ethical considerations for the use of social networks in business communication.

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