

UNDERSTANDING WORKPLACE ADOPTION OF SOCIAL NETWORKING SITES: EMPLOYERS' PERSPECTIVE

MURAD MOQBEL

Our Lady of the Lake University
muradmoqbel@gmail.com

ABSTRACT

Studies on social networking sites (SNSs) rarely touched on the acceptance of SNS use in the workplace. This study, in turn, attempts to fill this gap by explaining the acceptance of SNS use in the workplace by proposing a research model for the acceptance of SNS use, based on the technology acceptance model (TAM) and the theory of planned behavior (TPB), in order to explain the intention of employers to adopt SNS use in the workplace. Structural equation modeling (SEM) was used to examine the extent to which the perception of employers on the benefits/usefulness, subjective norm, risks, and the ease of use of SNSs affect the intention to adopt the use of SNSs in the workplace. Data was collected from 81 employers in the U.S. The findings show that both perceived usefulness and perceived subjective norm are the main determinants of the intention to adopt social networking site use in the workplace.

Keyword: Social networking, business benefits, Facebook, technology acceptance model, PLS, SEM, perceived risk.

I. INTRODUCTION

The advances in technology and the vast availability of the Internet have led to a communication revolution. SNSs are a recent trend of this revolution that we live with everyday (Moqbel, 2012). Social networking sites are either public or internal (Rooksby, Baxter, Cliff, Greenwood, Harvey, Kahn, Keen, & Sommerville, 2009). The public social networking sites are run by commercial providers and often are free such as Facebook, Twitter, and LinkedIn. The internal social networking sites are owned by organizations for their

own use inside the organization such as Town Square at Microsoft. This study looks at the adoption of public social networking sites in the workplace.

The use of SNSs in the workplace can be double-edged sword. In one hand, it can have direct and indirect benefits to organizations. One direct benefit can be in the form of instant feedback from customers as a result of the use of SNSs as a means of communication with customers (Bughin, 2009). An indirect benefit of the use of SNSs in the workplace can be in the form of higher morale which could lead to employee



productivity (Bennett, Owers, Pitt, & Tucker, 2010; Leidner, Koch, & Gonzalez, 2010; Moqbel, 2012). On the other hand, SNSs can expose an organization to several types of risks including “perceived loss in staff productivity; data leakage from staff gossiping freely in an open environment; malware and phishing scams practiced by cyber-crooks; the open access potentially offered to the company servers by lax and outdated attitudes towards passwords” (Wilson, 2009, p. 55). A debate among academicians and business practitioners on the value of the use of social networking sites in the workplace is still far from being resolved.

Several studies have been conducted on SNSs using the TAM model (Davis, 1986) and the TPB (Ajzen, 1991) using data collected from students (Pinho & Soares, 2011), however, to the best of my knowledge no study has been conducted on the acceptance of SNSs in the workplace from the employers’ perspectives.

This study employs the TAM model (Davis, 1986) and the TPB (Ajzen, 1991) as a framework to examine the determinants of the adoption of SNSs from the employers’ perspective. This research investigates the extent to which the perception of employers on the usefulness, subjective norms, perceived risks, and the ease of use of SNSs affects the intention to adopt SNSs in the workplace. I do this by surveying and collecting data on the perception of a sample of 81 employers regarding perceived benefits/usefulness, subjective norms, perceived risk, and perceived ease of use of SNSs in the workplace.

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

SNSs

Social networking sites are defined by Boyd and Ellison (2007) as

web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection with, and (3) view and traverse their list of connections and those made by others within the system (p. 211).

The communication revolution – SNSs – began to boom in the mid 1990s when Classmates site was launched in 1995 through which classmates share information with each other (Rooksby et al., 2009). LinkedIn founded in May 2003 (O’Murchu, Breslin, & Decker, 2004), MySpace launched in 2003 (Boyd & Ellison, 2007) targeted at teenagers (Parameswaran & Whinston, 2007), Twitter launched publicly in July 2006 (Rooksby et al., 2009), and YouTube founded in 2005 (Boyd & Ellison, 2007) are a few examples of the most renowned social networking sites introduced in the past decade. Table 1 provides a list of major social network sites.

Facebook – a personal yearbook – is the most popular SNS, launched in February 2004 as a Harvard-only SNS (Facebook, 2012). Facebook defines itself as a “social utility that helps people communicate more efficiently with their friends, family and coworkers” (Clark & Roberts, 2010, p. 508). It became so rapidly popular that

it was included in the 2008 edition of the Collins English Dictionary as a verb and a noun (Nielsen, 2009). Facebook currently has more than 901,000,000 users, 80 percent of them reside outside the United States and Canada (Facebook, 2012). Not only that, but also the average internet user spends on average 6 hours per month on Facebook, and more than 50 percent of Internet users use Facebook on their cell phones (Shepherd, 2011). Facebook founders, Mark Zuckerberg and co-founders Dustin Moskovitz, Chris Hughes and Eduardo Saverin, learned valuable lessons from previous SNSs' failures and achieved great success in launching the site by following an organic growth plan. That is by ensuring that no expansion takes place until the servers could handle the additional traffic.

For instance, starting in 2005, Facebook started to expand to include high school students, commercial organizations, and gradually to include everyone (Boyd & Ellison, 2007). Facebook appeals to users due to its simple layout of interface that carries little ad as compared to other social network sites such as MySpace; broad appeal of audience not confined to a certain age group; focusing on connecting rather than entertainment, creative architecture that includes features such as applications, requests, and invites; better privacy in which more control over who have access to see some content; huge media coverage that made it popular (Nielsen, 2009). Many companies use Facebook mainly for marketing and recruiting purposes (Leader-Chivée & Cowan, 2008).

Table 1: Major SNSs profiles

SNS	Year Started	Founder/s
Classmates	1995	Randy Conrads
		Reid Hoffman
		Allen Blue
		Konstantin Guericke
LinkedIn	2003	Eric Ly
		Jean-Luc Vaillant
MySpace	2003	Tom Anderson
		Chris DeWolfe
YouTube	2005	Steve Chen
		Jawed Karim
		Chad Hurley
Facebook	2004	Mark Zuckerberg
		Eduardo Saverin
		Dustin Moskovitz
		Chris Hughes
Twitter	2006	Jack Dorsey
		Noah Glass
		Evan Williams
		Biz Stone

Technology Acceptance Model

In order to evaluate the adoption of the use of social networking sites in the workplace from the perspective of employers, TAM model was used. First introduced by Davis (Davis, 1986), TAM model, an established model of computer usage, has been widely used in explaining the adoption of a number of new technologies (Davis, 1989; Davis, Bagozzi, & Warshaw, 1992; Moqbel, 2012; Van der Heijden, 2004) and cultures (Grandon, Alshare, & Kwun, 2005). Tam model is based on the theory of reasoned action (TRA) (Ajzen & Fishbein, 1980) and the theory of planned behavior (TPB) (Ajzen, 1991). TPB stipulates that the more favorable the attitude and subjective norms with respect to behavior, and the greater the perceived behavioral control, the stronger should be an individual's intention to perform the behavior under consideration (Ajzen, 1991). On the other hand, TRA posits that an execution of a behavior is an

outcome of attitude resulted from reasoning evaluations and beliefs. In this study, the relevant behavior is the adoption of the use of social networking sites in the workplace and the evaluations and beliefs are proposed as perceived usefulness, perceived ease of use, subjective norms, and perceived risk.

Perceived ease of use refers to how much mental effort is expended in the use of a system, in which the user assesses the ease of use through the interaction with the system rather than through the outcome of the interaction with the system. Several studies reported positive significant association between the ease of use which is a belief that using a particular system is free of effort (Davis, 1989; Van der Heijden, 2004; Venkatesh, 2000; Venkatesh, Morris, Gordon, & Davis, 2003). In addition, perceived ease of use was found by several studies to influence perceived usefulness (Agarwal & Karahanna, 2000; Davis, 1989; Teo, Lim, & Lai, 1999; van der Heijden, 2004; Venkatesh, 2000). This leads to the following hypotheses:

Hypothesis 1: Perceived ease of use is positively influencing the intention of employers to allow the use of social networking sites in the workplace.

Hypothesis 2: Perceived ease of use is positively influencing the perceived usefulness of social networking site use in the workplace.

On the other hand, perceived usefulness refers to the external benefits to the user-system interaction which are improving the job performance. In other words, individuals will use a system only if they perceive its use would assist them achieve the desired performance. Several studies conducted in this area found significant positive influence of perceived usefulness

on adoption (Davis, 1989; Van der Heijden, 2004; Venkatesh et al., 2003). This leads to the third hypothesis:

Hypothesis 3: Perceived usefulness is positively influencing the intention of employers to allow the use of social networking sites in the workplace.

TPB consists of three main conceptually independent determinants of intention: attitude, subjective norms, and perceived behavioral control (Ajzen, 1991; Fishbein & Ajzen, 1975). First, attitude – a behavioral belief – captures the degree to which a person has favorable or unfavorable evaluation of the particular behavior. Second, subjective norm, a normative belief, stands for the perceived social pressure to perform or not to perform the behavior (Ajzen, 1991; Fishbein & Ajzen, 1975). Third, the perceived behavioral control, a control belief, refers to the perceived ease or difficulty of performing the behavior.

As part of TPB, subjective norm is a reflection of the perceived opinions of referent others who can be peers, competitors, or just other similar management-level individuals in other organizations. The motivation for individuals to adopt information systems such as social networking sites in the workplace is influenced by the social pressure of the individuals' peers. One theoretical perspective emphasized the importance of this construct in the technology use in TPB is social influence (Fulk, Steinfield, Schmitz, & Power, 1987). Several studies that included subjective norm construct found it to be significantly influencing the behavioral intention of technology use (Glass & Li, 2010; Hartwick & Barki, 1994; Taylor & Todd, 1995; Venkatesh, 2000). For instance, Mathieson (1991) and Taylor

& Todd (1995) found that peers are strong determinants of subjective norms. This leads to the fourth hypothesis:

Hypothesis 4: Perceived subjective norms are positively influencing the intention of employers to allow the use of social networking sites in the workplace.

The theory of perceived risk was first introduced by Bauer (1960) to explain consumer behavior. Several studies in the literature used perceived risk to explain behavior (Taylor, 1974; Thomas, 2011; Wu & Wang, 2005). In turn, perceived risk construct was developed in this study based on a list of the challenges of the use of SNSs in the workplace. This construct consists of the potential risks of the adoption of SNSs in the workplace such as loss of employee productivity as a result of time wasted, data leakage, malware and phishing scams, and bad reputation about the company. It is expected that perceived risk to negatively affect the intention of employers to allow the use of social networking sites in the workplace.

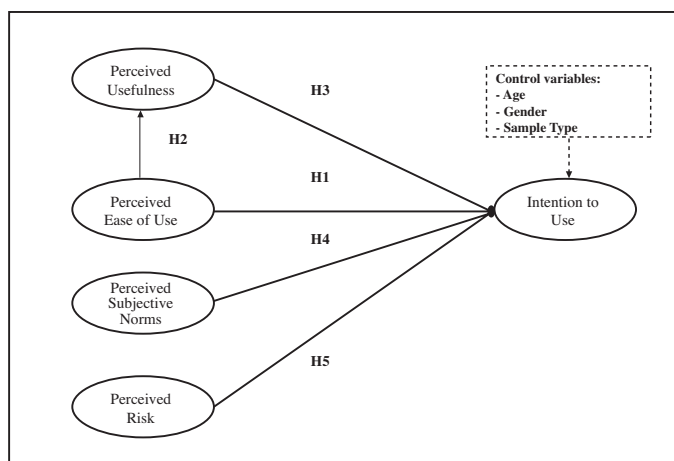
In a similar context of the use of perceived risk, Gebauer, Kline, and He (2011) found that perceived risk of an online application had influence on the intention of exerting password-related efforts. This leads to the last hypothesis:

Hypothesis 5: Perceived risk is negatively influencing the intention of employers to allow the use of social networking in the workplace.

Research Model

The hypotheses discussed in the previous section are depicted by the research model presented in Figure 1. Standard demographic variables – age and gender – were controlled for in this study. Since the data were collected from two samples, offline and online samples, it is important to control for the sample type in order to rule out any explanation in the variance of the intention to use variable as a result of the difference of the sample types.

Figure 1: Research model and hypotheses



III. METHODOLOGY

Measurement Instrument

A set of survey questions were developed after reviewing the literature and thorough discussion with practitioners. Indicators for intention to use were adopted from Agarwal and Karahanna (2000) and Davis et al (1992); and indicators for perceived ease of use from Davis (1989). Indicators for perceived usefulness were based on Davis (1989) and additional indicators were added by the researcher such as that the use of social networking will enhance employee’s

morel, performance, commitment, and satisfaction.

A multidimensional scale construct was developed based on Wilson (2009) in order to measure perceived risk. It is comprised of four indicators inquiring about the extent to which an employer perceives the use of social networking sites in the workplace to cause risk to the workplace. A sample of these questions include “Allowing the use of social networking sites in the workplace will lead to loss in employee productivity due to time wasted” “At work, social networking sites have become part of my daily routine,” “Allowing the use of social networking sites in the workplace will lead to data leakage from staff gossiping freely in an open environment,” and “Allowing the use of social networking sites in the workplace will lead to bad reputation about the company.”

A five-point Likert scale ranging from 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, to 5 = strongly agree was used for the perceived risk, usefulness, ease of use, subjective norm, and intention to use indicators scale.

Perceived usefulness was measured by six indicators (USEF1-6), perceived ease of use by three indicators (EOU 1-3), perceived subjective norms by three indicators (SN 1-3), perceived risk by four indicators (RSK 1-4) and finally perceived intention to use by three indicators (INT 1-3). *Appendix A lists all the indicators we used in the study.

Data Collection

Both an offline and web-based surveys were employed to collect the necessary data to test the proposed model. The online respondents

were employers from different states in the USA while the offline respondents were employers in a metropolitan border town in Southern Texas participating in a human development workshop offered by the career service office at Texas A&M International University. The sample was selected by following a non-probability sampling.

We received responses from 34 online and 60 offline questionnaires. After conducting an outlier analysis (Hair, Black, Babin, & Anderson, 2010), no observation needed to be dropped. However, 13 respondents were dropped because they did not fit criteria for inclusion in the study (e.g., not employers), we ended up with 81 observations (47 offline and 34 online), of which 39 of the respondents were male (48 percent) and 42 were female (52 percent). Their average age was 40 years old. 52 (64 percent) of participants reported having formal social networking site use policy in the workplace. 29 (36 percent) of the participants revealed that they currently allow the use of social networking sites in the workplace while 56 participants (69 percent) claimed that they allow the use of SNSs only if it is work-related. Only 18 participants (22 percent) reported using SNSs for background check and employment decisions. When offline participants were asked about whether they use social networking sites themselves, 43 participants (91 percent) answered yes. Participants were asked about the industry they belong to and the result shows that four were from manufacturing; four from transportation, 14 from finance and insurance, 24 from healthcare, and 35 from other industries. This result shows that the majority of participants belong to the service sector.

Model Assessment

The model proposed in this study was assessed using variance-based structural equation modeling (SEM). Variance-based SEM is a multivariate analysis technique that shares similarities with covariance-based SEM (Diaconis & Efron, 1983; Lohmoller, 1989; Rencher, 1998). Variance-based SEM (PLS) offers several flexibilities than that of the covariance-based one such as that PLS does not require multivariate normality in a data set (Chin, 1998; Siegel & Castellan, 1988). Some of the flexibilities PLS provides include that it does not require a large sample size, can estimate complex models with several latent and manifest variables, and it does not require normality (Gefen, Straub, & Boudreau, 2000; Henseler, Ringle, & Sinkovics, 2009).

The sample size¹ of 81 in this study is smaller than the minimum recommended for covariance-based techniques. However, in variance-based technique (PLS) the sample size requirements should be determined by assessing “the largest number of two possibilities: (1) the block with the largest number of formative indicators (i.e., largest measurement equation) or (2) the dependent latent variable with the largest number of independent latent variables impacting it (i.e., largest structural equation). Using a regression heuristic of ten cases per indicator, we see that the sample size requirement would be ten times either (1) or (2), whichever is greater” (Chin & Newsted, 1999, p. 326-327). Therefore, in the current study, the recommended sample size is 60 or larger (10 x 6 the number of indicators in the

¹ OLS regression was run, but there was no major difference in the results from that of PLS regression

most complex latent variable – usefulness), which means that the sample size of the study exceeds the minimum requirement.

The model was analyzed using a jackknifing procedure in PLS which is suitable for samples with smaller sizes or outliers (Chiquoine & Hjalmarsson, 2009). This study uses WarpPLS 3.0, a nonlinear variance-based structural equation modeling software tool that uses PLS regression algorithm to implement variance-based SEM, to assess the measurement and the structural model (Kock, 2010, 2011, 2012).

Measurement Model

The measurement model was assessed for construct reliability and validity. Reliability was calculated for all multi-indicator variables in the research model (see Table 2). Cronbach’s alphas (CA) for all variables were above the recommended level of 0.70 for all latent variables (Nunnally & Bernstein, 1994). In addition to using the CA, internal consistency reliability can also be assessed by the composite reliability (CR) estimate, which is unlike the CA, it takes into consideration that indicators have different loadings. As shown in Table 2, CA and CR of all constructs have exceeded the threshold mentioned above and can justify the use of the constructs. Construct validity, in terms of both convergent and discriminant validity, was assessed by both confirmatory factor analysis and by comparing the inter-construct correlations with the square roots of the average extracted variance (AVE) for each construct. A confirmatory factor analysis was performed on the multi-indicator variables in the research model (see Table 2). The loadings and cross-loading were calculated after oblique rotation (Thompson, 2004). After removing

one indicator from the perceived ease of use due to low loading, the standardized factor

extracted (AVE) for each construct with the inter-construct correlations associated with

Table 2: Construct validity and reliability

Construct	Indicator	Loading	Cronbach's Alpha	Composite Reliability
Intention	INT1	0.96	0.96	0.98
	INT2	0.96		
	INT3	0.97		
Ease of Use	EOU1	0.87	0.67	0.86
	EOU2	0.87		
Subjective Norms	SN1	0.88	0.89	0.93
	SN2	0.94		
	SN3	0.90		
Usefulness	USEF1	0.92	0.94	0.95
	USEF2	0.93		
	USEF3	0.90		
	USEF4	0.89		
	USEF5	0.85		
	USEF6	0.77		
Risk	RSK1	0.86	0.91	0.93
	RSK2	0.92		
	RSK3	0.90		
	RSK4	0.84		

loadings were greater than 0.50 (Bagozzi & Yi, 1988; Fornell & Larcker, 1981; Sujana, Barton, & Kumar, 1994), with all of them above 0.70, indicating high construct validity.

The conservative approach for establishing discriminant validity is by comparing the square roots of the average variance

the construct (Hair et al., 2010). The square roots of all constructs' AVEs (on the diagonal) were greater than the corresponding inter-construct correlations (below the diagonal) as shown in Table 3 thus showing acceptable discriminant validity (Fornell & Larcker, 1981).

Table 3: Correlations between square roots of AVEs and constructs

	INT	EOU	SN	USEF	RSK
INT	(0.965)				
EOU	0.210	(0.867)			
SN	0.592	0.174	(0.905)		
USEF	0.763	0.335	0.632	(0.879)	
RSK	-0.620	-0.318	-0.533	-0.780	(0.882)

Note: INT = intention; EOU = ease of use; SN = subjective norms; USEF = usefulness; RSK = risk.

A look at the high correlation between the constructs in Table 3, may indicate examination by was concentrate to determine multicollinearity between the constructs. Therefore, an additional multicollinearity by looking at the variance

Table 4: VIF coefficients

	INT	EOU	SN	USEF	RSK
VIF	2.92	1.16	1.85	4.25	2.72

Note: INT = intention; EOU = ease of use; SN = subjective norms; USEF = usefulness; RSK = risk.

inflation factor (VIF) values provided by WarpPLS 3.0 (Kock, 2012). Table 4 shows that the VIF values for all constructs were less than the threshold 5 and the highest VIF value was 4.25 for perceived usefulness. This means that multicollinearity has been ruled out as an explanation for the results.

In summary, all the scales met the requirements of unidimensionality, convergent, discriminant validity, and internal consistency (Fornell & Larcker, 1981) in order to be included in the structural model.

3.3.2 Structural Model

The key fit indices used to assess the structural model include average path coefficient (APC), average R-squared (ARS), and average variance inflation factor (AVIF). Both the APC and ARS should be significant at the 0.05 level, while the AVIF is recommended to be less than 5 (Kock,

Table 5: Structural model fit indices

APC	ARS	AVIF
0.18***	0.37***	1.94

*** P<0.001

2012). The fitness of the structural model is shown in Table 5. The values for the key fit indices were within the threshold of the recommended values, providing evidence of good overall fit.

IV RESULTS

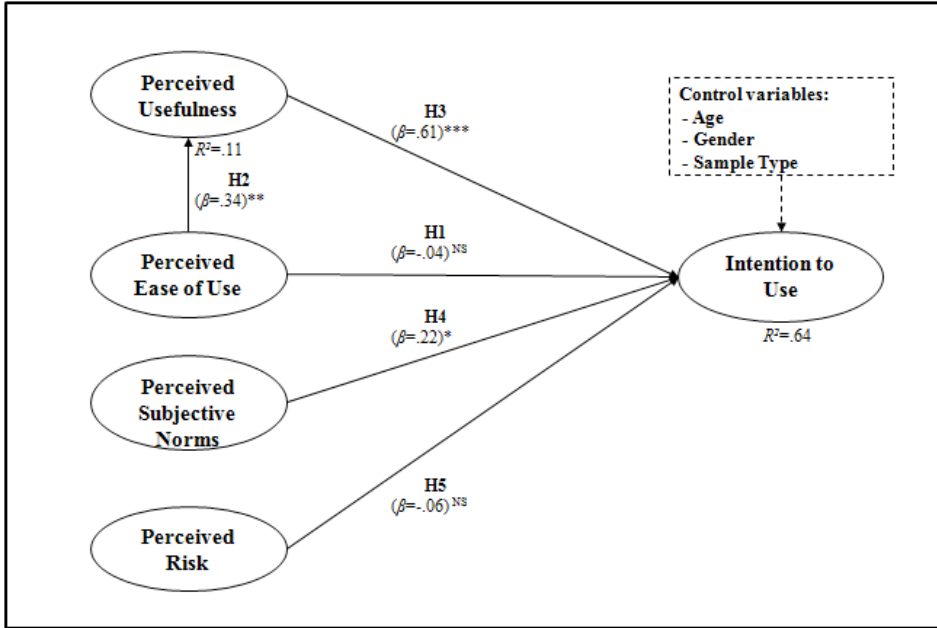
The results in Figure 2 show that three out of the five proposed hypotheses were supported. Perceived usefulness (H3)

(coefficient=0.61, $p < 0.001$), and perceived subjective norms (H4) (coefficient=0.22, $p < 0.01$) both had significant effects on behavioral intention also supporting both H3 and H4 hypotheses, explaining 64 percent of the variance when controlling for other variables included in the model. H2 was supported, showing that perceived ease of use (coefficient=0.34, $p < 0.01$) has a significant positive effect on perceived usefulness, explaining 11 percent of the variance. On the other hand, H5 was not supported, indicating that perceived risk (coefficient=-0.06, $p < 0.10$) did not have a significant effect on intention to allow social networking site use in the workplace. None of the control variables was significant. This indicates that the sample type (online vs. offline) did not have statistically significant power in explaining the behavioral intention. In other words, there was no significant difference in the behavioral intention between the two sample types. Table 6 shows the support or the lack of support for all hypotheses.

V. DISCUSSION

The four main independent constructs, namely perceived ease of use, perceived subjective norms, perceived risk, and perceived usefulness explained 64 percent of the variance in behavioral intention after controlling for age, gender, and sample type. Unlike previous studies (Davis, 1989; Van der Heijden, 2004; Venkatesh, 2000;

Figure 2: Hypotheses and related coefficients



Notes: - * = $P < 0.05$; ** = $P < 0.01$; *** = $P < 0.001$; NS = not statistically significant.

- β = beta coefficient (a.k.a. path coefficient).

- R^2 = R-squared.

Table 6: Results of Hypotheses Testing

No.	Hypothesis	Path Coefficient	Supported?
H1	Perceived ease of use is positively influencing the intention of employers to allow the use of social networking sites in the workplace	-0.04 ^{NS}	No
H2	Perceived ease of use is positively influencing the perceived usefulness of social networking site use in the workplace	0.34**	Yes
H3	Perceived usefulness is positively influencing the intention of employers to allow the use of social networking sites in the workplace	0.61***	Yes
H4	Perceived subjective norm is positively influencing the intention of employers to allow the use of social networking sites in the workplace	0.22**	Yes
H5	Perceived risk is positively influencing the intention of employers to allow the use of social networking sites in the workplace	- 0.06 ^{NS}	No

Notes:

- * = $P < 0.05$; ** = $P < 0.01$; *** = $P < 0.001$; NS = not statistically significant.

Venkatesh et al., 2003), we found that the explanatory effect of perceived ease of use on behavioral intention to be not significant, making H1 (coefficient=-0.04, $p<0.10$) not significant, although it was in the predicted direction. This could be explained by that perceived ease of use lost its predictive power to perceived usefulness indicating that employers emphasize the business benefits that social networking site use could bring to their organizations rather than the ease of use. In addition, H2 (coefficient=0.34, $p<0.01$) shows that perceived ease of use had positive influence on the perceived usefulness supporting extant literature (Agarwal & Karahanna, 2000; Davis, 1989; Teo et al., 1999; van der Heijden, 2004; Venkatesh, 2000).

In addition, subjective norm has been found to be more important predictor for behavioral intention than that of ease of use and perceived risk. This finding suggests that employers' intention to allow the use of social networking sites in the workplace is influenced by social pressure from their peers.

Consistent with previous studies, this study showed that perceived usefulness, and perceived subjective norms were significant in explaining the employers' behavioral intention to adopt the use of social networking sites in the workplace, supporting H3 (coefficient=0.61, $p<0.001$) (Davis, 1989; van der Heijden, 2004; Venkatesh et al., 2003), and H4 (coefficient=0.21, $p<0.01$) (Glass & Li, 2010; Hartwick & Barki, 1994; Mathieson, 1991; Taylor & Todd, 1995; Venkatesh, 2000). Social networking site use provides employees with benefits including keeping close contact with friends, family members, and coworkers. This social interaction could eventually lead to higher morale and ultimately to the belief that social

networking sites are useful. As for H4, it shows that the perceived opinions of referent others who can be peers, competitors, or just other similar management-level individuals in other organizations plays a role in the behavioral intention of the employers to adopt social networking site use in the workplace.

The lack of support for H5 (coefficient=- 0.06, $p<0.10$) tells us that the perceived risk of the use of social networking sites in the workplace such as loss of employee productivity as a result of time wasted, data leakage, malware and phishing scams, and bad reputation about the company did not have impact on the behavioral intention. This result shows that perceived risk is not relevant to the behavioral intention of employers to allow the use of social networking sites in the workplace.

VI. CONCLUSION

This study examined four main constructs relevant to the explanation of the acceptance of social networking site use in the workplace by employers, namely: perceived subjective norms, perceived ease of use, perceived usefulness, and perceived risk. The results show that the employers who intend to adopt the use of social networking sites in the workplace do so mainly because of their perception that social networking site use provides benefits to their organizations in terms of high morale, satisfaction, commitment, and performance of employees in one hand; and provides benefits to the organization in general such as helping in recruiting and retaining talented employees, and increasing the number of successful innovations.

On the other hand, employers who intend to adopt the use of social networking sites



in the workplace do so because social networking site use is already allowed in other organizations that the surveyed employers are familiar with. This leads to the conclusion that the perceived business benefits the information system under study is expected to play a big role in the explanation of the technology acceptance model. In this case, perceived usefulness was the construct responsible for the majority of the explanation of the behavioral intention of employers to allow the adoption of the use of social networking sites in the workplace, while perceived ease of use lost its predictive and significant power to perceived usefulness and subjective norms. From the business perspective, the bottom line is the ultimate goal and therefore organizations are willing to adopt an information system on the condition that it brings business benefits whether directly or indirectly to the organization as is the case for the moderate use of social networking sites in the workplace. The direct benefits of the use of social networking sites can be through facilitating the communication between coworkers as well as with suppliers and customers leading to higher customer satisfaction; reducing communication costs; increasing the speed of access to knowledge and experts; being a source of business intelligence; and providing effective marketing. As for the indirect benefits of social networking site use in the workplace, they can be through providing social interaction to the employees in the workplace which can be translated into higher morale, job satisfaction, organizational commitment, and eventually higher performance.

One of the practical implications of this empirical study is that it is important for system developers to include some hedonic aspects such as fun and enjoyment in the systems they build in order to increase the

system acceptance by employees (Moqbel, 2012) who can translate this acceptance into business benefits in the form of high morale, performance, commitment, and satisfaction with their jobs. Davis et al. (1992) pointed out that improved enjoyment of using a system could lead to higher system acceptance and use in the workplace.

One of the theoretical implications of this study is that this study integrates both, perceived subjective norms construct from the theory of planned behavior (Ajzen, 1991) and perceived risk from the theory of perceived risk theory (Bauer, 1960), with the technology acceptance model (Davis, 1989) in the explanation of behavioral intention. The integration of the four variables, (i.e., perceived usefulness, perceived subjective norms, perceived risk, and perceived ease of use) has explained 64 percent of the variance of behavioral intention. Another theoretical implication of this study is that it supports the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003). From the conceptual perspective, the usefulness, ease of use, and the subjective norms are to some extent similar to performance expectancy, effort expectancy, and social influence in UTAUT, respectively. To the best of my knowledge, this is the first research that studies the adoption of technologies in the workplace from the perspective of employers. This research model can be used by other researchers to investigate the intention of employers to allow the adoption of other technologies in the workplace. It will be helpful for future studies to apply this research model in different cultures as well.

APPENDIX A

1. Perceived Usefulness

By allowing the use of social networking sites in the workplace:	Strongly disagree	disagree	Neutral	Agree	Strongly agree
Employees will have higher job satisfaction	1	2	3	4	5
Employees will have higher job commitment	1	2	3	4	5
Employees will have higher job performance	1	2	3	4	5
Employees will have higher morale	1	2	3	4	5
Will help in recruiting and retaining talented employees	1	2	3	4	5
Will help increase number of successful innovations	1	2	3	4	5

2. Perceived Risk

Allowing the use social networking sites in the workplace:	Strongly disagree	disagree	Neutral	Agree	Strongly agree
Will lead to loss in employee productivity due to time wasted	1	2	3	4	5
Will lead to data leakage from staff gossiping freely in an open environment	1	2	3	4	5
Will lead to malware and phishing scams practiced by cyber-crooks	1	2	3	4	5
Will lead to bad reputation about the company	1	2	3	4	5

3. Perceived Intention

	Strongly disagree	disagree	Neutral	Agree	Strongly agree
I intend to allow my employees to use social networking sites at work	1	2	3	4	5
I predict that I will allow my employees to use social networking sites at work	1	2	3	4	5
I plan to allow my employees to use social networking at work	1	2	3	4	5

4. Perceived Ease of Use

	Strongly disagree	disagree	Neutral	Agree	Strongly agree
The interaction with social networking sites in the workplace is clear and understandable	1	2	3	4	5
Interaction with the social networking sites do not require a lot of mental efforts	1	2	3	4	5
I and my employees find social networking sites easy to use	1	2	3	4	5

5. Perceived Subjective Norms

	Strongly disagree	disagree	Neutral	Agree	Strongly agree
Most of my management-level peers in other companies allow their employees to use social networking sites in the workplace	1	2	3	4	5
Most companies I know of allow their employees to use social networking sites in the workplace	1	2	3	4	5
Most of our competitors allow their employees to use social networking sites in the workplace	1	2	3	4	5

VII. REFERENCES

- Agarwal, R., & Karahanna, E. (2000). Time Flies When You're Having Fun: Cognitive Absorption and Beliefs about Information Technology Usage. *MIS Quarterly*, 24(4), 665-694.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Bagozzi, R., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94.
- Bauer, R. A. (1960). *Consumer Behavior as Risk Taking*. Paper presented at the 43rd Conference of the American Marketing Association, Chicago.
- Bennett, J., Owers, M., Pitt, M., & Tucker, M. (2010). Workplace impact of social networking. *Property Management*, 28(3), 138 - 148.
- Boyd, D., & Ellison, N. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210-230.
- Bughin, J. (2009). How companies are benefiting from Web 2.0: Selected McKinsey Global Survey Results. *McKinsey Quarterly*(4), 84-85.
- Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. *MIS Quarterly*, 22(1), 7-16.
- Chin, W. W., & Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least squares *Statistical strategies for small sample research* (pp. 307-341): Thousand Oaks. Calif: Sage Publications.
- Chiquoine, B., & Hjalmarsson, E. (2009). Jackknifing stock return predictions. *Journal of Empirical Finance*, 16(5), 793-803.
- Clark, L., & Roberts, S. (2010). Employer's use of social networking sites: A socially irresponsible practice. *Journal of Business Ethics*, 95(4), 507-525.
- Davis, F. (1986). *A technology acceptance model for empirically testing new end-user information systems: Theory and results*. Unpublished doctoral dissertation, Sloan School of Management, Cambridge, MA.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319-340.
- Davis, F. D., Bagozzi, R., & Warshaw, P. (1992). Extrinsic and Intrinsic Motivation to Use Computers in the Workplace. *Journal of Applied Social Psychology* 22(14), 1111-1132.
- Diaconis, P., & Efron, B. (1983). Computer-intensive methods in statistics. *Scientific American*, 248(5), 116-130.



- Facebook. (2012). Statistics. Retrieved June 7, 2012, from <http://newsroom.fb.com/content/default.aspx?NewsAreaId=22>
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Fulk, J., Steinfield, C. W., Schmitz, J., & Power, G. (1987). A Social Information Processing Model of Media Use in Organizations. *Communication Research* 14(5), 529-552.
- Gebauer, J., Kline, D. M., & He, L. (2011). Password security risk versus effort: An exploratory study on user-perceived risk and the intention to use online applications *Journal of Information Systems Applied Research*, 4(2), 52-62
- Gefen, D., Straub, D., & Boudreau, M.-C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the Association for Information Systems*, 4(7), 1-70.
- Glass, R., & Li, S. (2010). Social Influence and Instant Messaging Adoption. *Journal of Computer Information Systems*.
- Grandon, E. E., Alshare, K., & Kwun, O. (2005). Factors influencing student intention to adopt online classes: a cross-cultural study. *J. Comput. Small Coll.*, 20(4), 46-56.
- Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate data analysis*. Upper Saddle River, N.J.; London: Pearson.
- Hartwick, J., & Barki, H. (1994). Explaining the Role of User Participation in Information System Use. *Management Science*, 40(4), 440-465.
- Henseler, J., Ringle, C., & Sinkovics, R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, 8(20), 277-319.
- Kock, N. (2010). Using WarpPLS in e-collaboration studies: An overview of five main analysis steps. *International Journal of e-Collaboration*, 6(4), 1-11.
- Kock, N. (2011). *WarpPLS 2.0 user manual*. Laredo, TX: ScriptWarp Systems.
- Kock, N. (2012). *WarpPLS 3.0 User Manual*. Laredo, TX: ScriptWarp Systems.
- Leader-Chivée, L., & Cowan, E. (2008). Networking the way to success: Online social networks for workplace and competitive advantage. *People & Strategy*, 31, 40-46.
- Leidner, D., Koch, H., & Gonzalez, E. (2010). Assimilating generation Y IT new hires into USAA's workforce: The role of an enterprise 2.0 system. *MIS Quarterly Executive*, 9(4), 229-242.
- Lohmoller, J.-B. (1989). *Latent variable path modeling with partial least squares*. Heidelberg, Germany: Physical-Verlag.

- Mathieson, K. (1991). Predicting User Intentions: Comparing the Technology Acceptance Model with the Theory of Planned Behavior. *Information Systems Research*, 2(3), 173-191.
- Moqbel, M. (2012). Explaining user acceptance of social networking: Employees' Perspective. *Proceedings of the Southwest Decision Science Institute Forty Third Annual Conference, February 29 – March 3*, 110-118.
- Nielsen. (2009). *Global faces and networked places: A Nielsen report on social networking's new global footprint*. New York, NY: The Nielsen Company.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. New York, NY: McGraw Hill.
- O'Murchu, I., Breslin, J. G., & Decker, S. (2004). *Online social and business networking communities*. Galway, Ireland: Digital Enterprise Research Institute.
- Parameswaran, M., & Whinston, A. B. (2007). Social computing: An overview. *Journal of the Association for Information Systems*, 19(1), 762-780.
- Pinho, J., & Soares, A. (2011). Examining the technology acceptance model in the adoption of social networks. *Journal of Research in Interactive Marketing*, 5(2/3), 116-129.
- Rencher, A. C. (1998). *Multivariate statistical inference and applications*. New York, NY: John Wiley & Sons.
- Rooksby, J., Baxter, G., Cliff, D., Greenwood, D., Harvey, N., Kahn, A., Keen, J., & Sommerville, I. (2009). *Social networking and the workplace*. St Andrews, UK: The UK Large Scale Complex IT Systems Initiative.
- Shepherd, C. (2011). Does social media have a place in workplace learning? *Strategic Direction*, 27(2), 3-4.
- Siegel, S., & Castellan, N. J., Jr. (1988). *Nonparametric statistics for the behavioral sciences* (2nd ed.) New York, NY, England: McGraw-Hill Book Company.
- Sujan, H., Barton, A. W., & Kumar, N. (1994). Learning orientation, working smart, and effective selling. *The Journal of Marketing*, 58(3), 39-52.
- Taylor, J. W. (1974). The role of risk in consumer behavior. *Journal of Marketing*, 38(2), 54-60.
- Taylor, S., & Todd, P. (1995). Assessing IT Usage: The Role of Prior Experience. *MIS Quarterly*, 19(4), 561-570.
- Teo, T. S. H., Lim, V. K. G., & Lai, R. Y. C. (1999). Intrinsic and extrinsic motivation in Internet usage. *Omega*, 27(1), 25-37.
- Thomas, S. (2011). Addiction in Internet chatting: An empirical study using modified Technology Acceptance Model. *Interdisciplinary Journal of Contemporary Research in Business*, 3(4), 287-298.



- Thompson, B. (2004). *Exploratory and confirmatory factor analysis: Understanding concepts and applications*. Washington, D.C: American Psychological Association.
- Van der Heijden, H. (2004). USER ACCEPTANCE OF HEDONIC INFORMATION SYSTEMS. *MIS Quarterly*, 28(4), 695-704.
- Venkatesh, V. (2000). Determinants of Perceived Ease of Use: Integrating Control, Intrinsic Motivation, and Emotion into the Technology Acceptance Model. *Information Systems Research*, 11(4), 342.
- Venkatesh, V., Morris, M. G., Gordon, B. D., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425-478.
- Wilson, J. (2009). Social networking: the business case. *Engineering & Technology*, 4(10), 54-56.
- Wu, J.-H., & Wang, S.-C. (2005). What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. *Information & Management*, 42(5), 719-729.

Short Bio of Murad Moqbel

Murad Moqbel is Assistant Professor at Our Lady of the Lake University, San Antonio, Texas. He holds a Ph.D. degree in International Business Administration and Management Information Systems from Texas A&M International University, Laredo, TX. He received a Bachelor of Science degree with honor in Business Administration and Computer Information Systems, and MBA with an MIS concentration from Emporia State University, Emporia, Kansas. He is the editorial assistant of the International Journal of e-Collaboration. He won best student paper award at Southwest Decision Science Conference 2012. He has authored and co-authored many papers and his work appeared in: *Public Organization Review*, *Journal of International Business Research (JIBR)*, *International Journal of Business Strategy (IJBS)*, *Advances in Accounting Incorporating Advances in International Accounting*, *Oil, Gas & Energy Quarterly* and *International Journal of Business and Management*. His research interests include social networking, software development performance, information security, health information management, information and Communication Technology, e-Collaboration, international business and process improvement.