The Effect of Social Capital on gratifications : By comparing social-oriented networking and business-oriented networking

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ABSTRACT

The paper empirically examines the impact of social capital of the relationships between users and IT artifacts on value creations from social networking sites (SNS). Specifically, we theorize how the three dimensions of social capital facilitate social networking and which gratifications users obtained from social networking. In addition, the current study conducts comparative work that examines the gratifications derived from social-oriented social networking sites (SSNS) with those from business-oriented social networking sites (BSNS).

Testing our model with 346 users and comparing a model for Facebook users (n= 141) with one for LinkedIn users (n=205), we found that business-oriented social networking site offers more monetary outcomes than social-oriented networking site while a social-oriented social networking site provides more social, status, and self-reactive outcomes than a business-oriented social network site. We believe this research extends our knowledge of IT values and IT artifacts in the IS discipline.

KEYWORDS: Gratification, Social capital, User-IT artifacts interaction, Social network sites, IT values

INTRODUCTION

Responding to the pervasiveness of social networking sites in all aspects of the organizational and personal lives of individuals, an increasing body of research has focused on the effect of social networking on a variety of contexts including the relationships between perceived playfulness and social network sites usage (Hung et al., 2016), factors affecting social network sites continuance (Ku et al., 2013; Lin et al., 2014; Lin et al., 2017), the impact of user feedback through social media on application success (Claussen et al. 2013), the effect of social media on work outcomes (Wu, 2013), user contents creation behavior in social network sites (Tang et al., 2012; Zeng and Wei, 2013), and information creation and diffusion through social networking (Chai et al., 2011-12; Stieglitz and Dang-Xuan, 2013; Xu and Zhang, 2013). These extensive researches have been valuable in expanding our understanding of social media. However, our review of this body of work revealed that they have not investigated the rather obvious question *why* users may actually participate in social networking sites and *what* they get from the use of social networking sites.

This paper has two objectives. First, it introduces and tests a richer theoretical model than has been examined previously in order to explain the drivers of social networking sites (SNS) and incentives derived from SNS.

To understand the motivation of SNS and benefits from the usage through the research model, this paper reports on a study used by 346 users in assessing their interaction with SNS and values achieved from the SNS. Our empirical context is the social interactions with social networking sites such as Facebook and LinkedIn, the largest social network of the social-oriented social networks (SSN) and the business-oriented social networks (BSN), respectively. In analyzing the data, we ask the following questions:

1. What is the factors affecting usage of social networking sites?
2. Which benefits are developed by participating in social networking sites?
3. In addition, how are the social-oriented social network sites different from the business-oriented social network sites from the perspective of benefits derived from participation?

To answer the questions, we suggest that social networking sites be studied as an IT artifact developed in conjunction with Information and communication technology (Benbasat & Zmud, 2003; Whinston & Geng; 2004) and that social networking sites as social actors affect technology use through the user-IT artifact interaction in which social capital lies. In sum, social capital, in this study, refers to resources reflecting the character of social relations between users and social networking sites. Thus, the current study identifies the drivers that make people participate in social networking sites by redefining social capital as social capital, which plays a unique role in social networking. Moreover, to reveal the benefits from participating in social networking sites, we have identified six outcomes by incorporating the social cognitive theory.

Second, this paper attempts to shed light on how differences in social networking sites may affect the drivers of SNS and values derived from SNS. We collected two sets of data from two social networking sites to compare the role of social capital on usage and the distinct benefits derived from the two different networks: 1) social-oriented social networking site and 2) business-oriented social networking site. We selected Facebook as a social-oriented social networking site and LinkedIn as business-oriented social networking service sites.

In sum, the purpose of this research is to investigate the impact of social capital on usage of social networking sites and the benefits from the usage to explore what makes people participate in social networking sites. This paper is organized as follows. First, we review social networks and IT artifacts to develop the concept of social capital by exploring users-IT artifacts interaction. second, we developed a research model by utilizing social capital theory, social response theory, and social cognitive theory. Then, we report on an empirical test of this model to address the impact of social capital on social networking and benefits derived from the networking. Finally, the comparisons general social networking sites with business-oriented social networking sites follows. We conclude with a discussion regarding the contributions of the model and our empirical test and make suggestions for future research.

THEORETICAL FOUNDATIONS

1.1.1.1   User-IT Artifact Interaction

IT artifacts are defined as "bundles of material and cultural properties packed in some socially recognizable form such as hardware/software" (Orlikowski & Iacono, 2001, p.121). IT artifacts are typically created by being newly developed or evolve by being integrated with legacy artifacts (Baxter & Berente, 2007). Recent research about IT artifacts suggests that IT artifacts can be *social actors* communicating with users, beyond being just tools to improve productivity (Al-Natour & Benbasat, 2009). For example, social response theory asserts that when technology represents a set of characteristics associated with humans such as communication and interactivity, people tend to respond to the technology by exhibiting social behaviors and making social attributions (Moon & Nass, 1996). Based on these arguments, we posit that as users perceive IT artifacts as social actors, they tend to interact with IT artifacts and perceive the relationships with IT artifacts as *inter*personal in nature (Johnson, Marakas, & Palmer, 2006; Al-Natour & Benbasat, 2009). Building on social capital theory that suggests social capital lies in the interpersonal relationships (Adler & Kwon, 2002), we assert that social capital is embedded in the relationship between users and IT artifacts.

1.2   Social Capital

We define social capitals as *a resource reflecting the character of social relations in user-IT artifact interaction in social networks*. Social capital is an asset that can benefit both the actors (e.g., having information and enhancing IT usage skill) and the IT artifacts such as social networking sites (SNS).

While previous studies assert that social capital is normally developed through interactions among people (Faraj et al., 2015), the current study suggests that social capital can be generated through relations between users and social networking sites. While social capital in former research facilitates the actions, communication, and exchange of members with other members, this study suggests that social capital promotes the actions, communications and exchange between users and social networking sites. Thus, social capital relies on relationships between people and social networking sites and generates resources such as human and intellectual capital.

RESEARCH MODEL AND DEVELOPMENT OF HYPOTHESES

In this section, we build our research model based on the theories discussed above. This model is diagrammed in Figure 1.
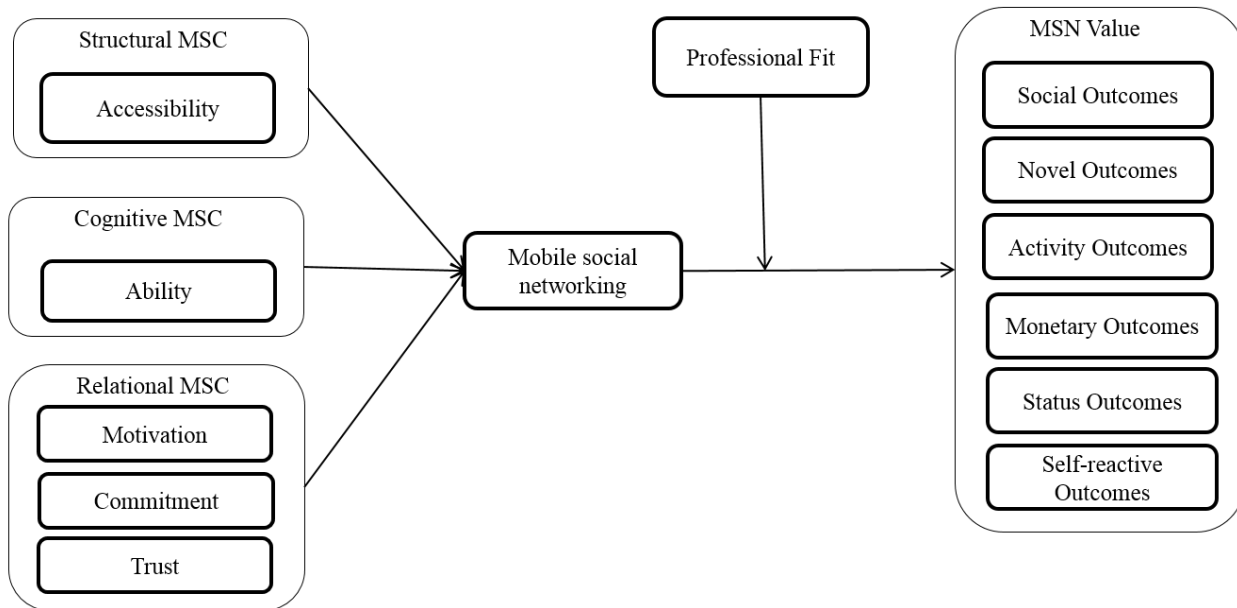

FIGURE 1: Research Model

Accessibility

The literature on social capital has identified three dimensions for this construct: structural, cognitive, and relational dimensions. Structural social capital refers to actors' interactions within and between networks. Interaction ties are characterized by network ties, networks configuration, and appropriate organization (Nahapiet & Ghoshal, 1998). Network ties, as a fundamental proposition of social capital, provide access to resources within relationships between/among actors. Network configuration refers to the properties of a network's structure, such as density, connectivity, and hierarchy. While ties provide the channels of resource-transfer, network configuration directly contributes the processes of developing resources. That is, social ties create opportunities for social capital transactions (Adler & Kwon, 2002) and network configuration provides the mechanism for generating resources. Ties have different influences on the development of social capital depending on the extent of their strength (Burt, 1997; Cross & Cummings, 2004 ; Pil & Leana, 2009). While closure provides social capital's cohesiveness - benefits such as efficiency within an organization or community - weak ties provide a diversity of knowledge (Adler & Kwon, 2002).

social networking sites dilute the impact of strong ties and modify the effects of weak ties due to the nature of information and communication technology and the virtual community. Information and communication technology connects millions of people around the world, even though these people don't necessarily know each other (Clarke III, 2001; Lyytinen & Yoo, 2002). People still tend to reveal information about themselves in a virtual community (Schau & Gilly, 2003). As a result, even though people are weakly tied, social networking sites derive benefits from both strong and weak ties including knowledge transfer efficiency and a diversity of knowledge (Burt, 1997; Leonardi, 2015; Nahapiet & Ghoshal, 1998).

From the perspective of strong ties, a large number of ties represents the large number of available routes for the diffusion of knowledge, which makes knowledge transfer efficient. That is, the diffusion of knowledge proceeds faster as users contact networks more frequently. According to weak ties literature, the larger the number of ties, the larger the number of available resources, which provides actors a diversity of knowledge. Accessibility as structural social capital characteristic produces efficiency of communication or an exchange of resources and a variety of information including intimate information through wide and weak ties.

Based on social capital literature, the current study proposes *accessibility* is an important facet of structural social capital, defined as the extent to which users are able to access to social networking sites. Given the transferable nature of social capital (Nahapiet & Ghoshal, 1998), social capital in physical networks can be transferred to social networking sites. In addition, the aggregation of the social capital of an individual can be transferred into networks (Burt, 2000). This phenomenon can be observed from user-IT artifact interaction. Social capital in social networking sites is also an accumulation of the social capital of individuals. That is, users can access all the information in social networking sites through interaction with networks rather than individual connections with each source provider. The more users access networks, the more information is accumulated and the more information users can gain from. Thus, people are more likely to participate in social networking sites to obtain broad and in-depth information. This leads us our hypothesis.

Hypothesis 1: In both social-oriented and business-oriented social sites, accessibility is positively related to social networking.

1.2.1.1   Ability

Cognitive social capital is related to shared norms and culture from an individual perspective, and shared vision and goals based on a group or organizational point of view. Shared goals represent "the degree to which network members share a common understanding and approach to the achievement of network tasks and outcomes" (Inkpen & Tsang, 2005, p. 153). The main theme of cognitive social capital is that actors who have a shared mental framework with others can share information more efficiently and effectively (Lee, Wong, & Chong, 2005). One of the key benefits of cognitive social capital is solidarity- the willingness of actors to subordinate their needs to the goals or the objectives of the relationships (Atuahene-Gima & Murray, 2007). Given the difference in viewpoints and ideas among actors, cognitive social capital diminishes misunderstandings. This promotes frequent interaction and develops intellectual capital.

Unlike physical networking, the communication method of social networking sites is characterized as being asynchronous and having indirect digitalization and disembodiment. Therefore, to participate in social networking sites, users require a level of skill to create, post, and read content. In addition, because of the diversity of social networking contexts (such as agents and topics), each social networking site has a unique norm and culture in creating, posting, reading, and replying to content. Thus, *ability* as the cognitive aspect of social capital includes not only cognitive ability to absorb norms and culture but also technical ability to create, post, and read content. In other words, ability is the resource that makes shared interpretations possible through shared methods of interacting with content based on shared norms and culture.

Hypothesis 2: In both social-oriented and business-oriented social sites, ability is positively related to social networking.

Motivation

Relational social capital refers to the affective nature of the relationship between/among actors which facilitates exchanges of resources with actors. Relational social capital exists when actors have a positive and strong identification with actors as well as networks (Wasko & Faraj, 2005). Identification represents the processes of becoming one with another person or group of people by developing a comparative frame of reference (Nahapiet & Ghoshal, 1998). The current study conceptually recognizes three dimensions of relational social capital: motivation, commitment, and trust.

Regarding motivation, a key question in social networking sites is what motivates donors to help recipients in the absence of immediate or certain returns. In addition, why would users respond to a request for knowledge from a stranger in a social networking sites that has very low social presence? Theories of prosocial motivation recommend two approaches to answer the inquiry (Constant, Sproull, & Kiesler, 1996).

First, the standard rational actor model posits that all actors are identically motivated by self-interest (Adler & Kwon, 2002). People are not only utilitarian but also self-expressive of feelings, attitudes, emotions, and self-concept. Behavior driven by self-expression enables actors to gain self-esteem by helping others or responding to others in networks. In addition, people are motivated to obtain and maintain a sense of self-consistency (Shamir, 1991). Self-consistency refers to a continuity of self-concept from past to future. Once actors mentally get self-rewards by helping others, they want to maintain this psychological state by continuing to help others. Thus, the benefits from satisfying self-desire motivate users to participate in social networking sites. Second, formalistic sociology posits motivation as an effect of network structure (Adler & Kwon, 2002), such as organizational citizenship and norms of generalized reciprocity (Constant et al., 1996). This suggests that people who have a strong organizational orientation are more likely to feel a responsibility to respond to others (Constant et al., 1996).

As it applies to social networks, motivation can also be represented as consummatory motivation and instrumental motivation. Consummatory motivation represents socialization, for example, socialization makes people obey traffic rules (Adler & Kwon, 2002). This causes people to feel an obligation to behave in this manner through internalized norms. Another dimension of consummatory motivation is bounded solidarity. For instance, bounded solidarity motivates wealthy members to endow anonymously a church. Bounded solidarity is salient in social networking sites, for instance, when actors with more knowledge may be willing to provide knowledge to help others in networks (Wasko & Faraj, 2005).

Instrumental motivation might be less obviously active in social networking sites. We suggest that users may not expect direct rewards from their contribution and aid for others. Donors may believe that they may receive rewards from someone in the future. A prominent type of reward in social networking sites is having access to knowledge or information. For example, users are able to have access to information about nearby restaurants. The information is either real-time information through synchronous communication, or cumulative information via asynchronous interaction. This reward is not a direct compensation corresponding to contribution to knowledge in social networking sites, however, the belief of having access to knowledge or information can be psychologically rewarding. This internalized belief as a perceived reward may motivates users to participate in activities and to help others.

In this study, *motivation* refers to the extent to which users are willing to participate in activities related to social networking sites. The definition includes consummatory, which is that actors participate in social networking sites due to bounded solidarity through shared destiny and instrumental motivation, an expectation of reward. Thus, highly motivated users are more likely to participate in social networking sites than less motivated actors are.

Hypothesis 3: In both social-oriented and business-oriented social sites, motivation is positively related to social networking.

Commitment

Commitment represents the desire to maintain relationships (Mathwick, Wiertz, & Ruyter, 2008), including the obligation to engage in continuous interaction in the future (Nahapiet & Ghoshal, 1998; Wasko & Faraj, 2005). While norms are shared by multiple actors and exist in the relationships among them, obligations are expectations developed within particular relationships (Coleman, 1988). In an organizational setting, a sense of obligation to the organization motivates members to share valuable knowledge and information (Constant et al., 1996).

In a social networking context, commitment is developed through interaction between users and social networks (user-IT artifact interaction). Initially, people join and learn about networks through observation rather than participation. As they learn and adapt shared norms, culture, and knowledge, they can more fully participate in activities (Ku et al., 2013; Mathwick et al., 2008). In a sense, social networking sites hold a 'credit slip' to be redeemed at some later date by a user. Therefore, users of networks can access the resources by meeting the obligations of being a member of the networks. This socialization process is *commitment,* which is the relational component of social capital and which refers to the extent to which users feel obligation to engage in future action and arises from frequent interaction. Similarly, relationships among direct ties are maintained by creating trust and a sense of obligation from social relationships (Montazemi, Siam, & Esfahanipour, 2008). Thus, we predict that more committed users are more likely to participate in activities in social networking sites due to a perceived obligation to maintain relationships with the social networking sites.

Hypothesis 4: In both social-oriented and business-oriented social sites, commitment is positively related to social networking.

Trust

Trust broadly refers to the belief that predictable and valued expected outcomes will be delivered by the trustee (Nahapiet & Ghoshal, 1998). Trust is an important component of online exchange relationships characterized by uncertainty, anonymity, lack of control, and potential opportunism. Previous studies have identified three dimensions of trust in online settings: ability, integrity, and benevolence (Bhattacherjee, 2002; Garbarino & Lee, 2003). Ability refers to the trustor's perception of the trustee's competencies and knowledge salient to the expected behavior. Integrity refers to the trustor's perception that the trustee will adhere to a set of principles or rules of exchanges acceptable to the trustor during and after the exchange. Benevolence is the extent to which the trustor believes the trustee intends to do good, beyond a mere motive for profit.

In networks, trust represents a progressively deeper degree of relational quality, including a deep sense of actors' reliability and faithfulness in resource exchange (Moran, 2005). Trust can be both an antecedent of social capital, by allowing actors to reliably exchange resources (Coleman, 1988) and a dimension of social capital existing within the relationship between/among actors (Nahapiet & Ghoshal, 1998), strengthening the relationship through more communication, information sharing, and collaboration (Bapna et al., 2017; Chow, 2009). This study adopts the latter focus and defines *trust* as the extent to which users believe that social networking sites provide predictable and reliable results. We propose that trust formed in the relationship between users and social networking sites reflects the quality of the relationship. Thus, users with a high level of trust in social networking sites are more likely to participate in social networking activities.

Hypothesis 5: In both social-oriented and business-oriented social sites, trust is positively related to social networking.

Social networking sites and outcomes

According to social cognitive theory (SCT), expected outcomes of behavior are formed by our own direct experience or mediated by vicarious reinforcement observed (LaRose & Eastin, 2004). Research by Bandura (1986) organized these expected outcomes into six basic types of incentives for human behavior: social, novel, activity, monetary, status, and self-reactive incentives. Social incentives is the pursuit of interaction and integration into social group and stemming from rewarding interactions often occur in conjunction with expressions of interest and approval from others. Social incentives are critical for successful relationships where people have an influence over each other (Bandura, 1986). Activity incentives are the desire to take part in enjoyable activities such as watching TV, Internet surfing, playing games, and completing academic or other tasks. Status outcomes are attempts to seem 'cool' or important and to status and personal acceptance within social group associated with the feeling of might (Peter et al., 2006). Self-reactive outcomes refer to human self-regulatory capacity to compensate the differences between personal dispositions and individual internal standards (Peter et al., 2006). The behavior to compensate these differences can be either encouraging or disheartening such as reductions of boredom or stress. Novel incentives include the search for novel information (including knowledge) and are similar to information seeking gratifications. Monetary incentives stem from the fact that money can purchase most anything people desire and recent studies indicate that monetary incentives include saving money as well as finding bargains online and saving time (Peters, 2009).

SCT posits that a human behavior is an outcome of reciprocal interactions and that behavior is reinforced by actions in the past (Bandura, 1986). In other words, past experience is an important component of current expectations (LaRose & Eastin, 2004). That is, people's experience is one of the strongest predictors of expected outcomes. Of particular relevance to the current study are SCT studies that have examined media consumption behavior through expected outcomes such as Internet use (LaRose, Mastro, & Eastin, 2001; LaRose & Eastin, 2004; Peters et al., 2006), cellular phone use (Leung & Wei, 2000), mobile communication devices (Peters & Allouch, 2005), and mobile technology (Peters, 2009). Similar to these studies, the current study suggests that user interaction with social networking sites will affect expected outcomes about social networking sites for future usage. The link of IT usage and outcomes is a feedback loop in which the initial use of an IT results in outcomes and post-adoptive behaviors such as continuous and extended use is reinforced based on the outcomes (Jasperson, Carter, & Zmud, 2005). The current study focuses on the front-end or beginning point of this loop.

That is, we conceptualize our dependent variable as the outcomes derived from usage of social networking sites. Thus, we suggest that the more a user interacts with social networking sites, the higher value is created for that user.

Hypothesis 6 (H6): Users with greater usage of social networking sites are more likely to devleop higher social networking outcomes: (A) Social, (B) Status, (C) Activity, (D) Self-reactive, (E) Novel, and (F) Monetary.

Moderators

Professional fit. How might a given role influence technology use? According to identity theory (Abrams & Hogg, 1990), people tend to behave in the manner in which maintains meaning and expectations for specific roles. For example, when a company recommends employees use an IT, if the employees believe that the IT will help advance their career, they are more likely to use the IT. Empirical evidence for the positive relationship between fit and systems use has been found in the task-technology fit model, which explains the importance of fit between task and technology in describing technology usage and performance impact (Goodhue & Thompson, 1995). Consistent with task-technology fit, job fit has also been shown to be a critical factor affecting the utilization of technology (Thompson, Higgins, & Howell, 1991). Speier and Venkatesh (2002) found that professional fit significantly and positively influences sales forces automation tool usage, which results in improving subjective outcomes such as organizational commitment and job satisfaction. While job fit accounts for the impact of a *specific job's* compatibility with technology (Thompson, Higgins, & Howell, 1991) and the task-technology fit model demonstrates the importance of congruence between a *specific task* and technology (Goodhue & Thompson, 1995), professional fit is a *global fit* between professional career and technology (Speier & Venkatesh, 2002). Thus, *professional fit* refers to the degree to which social networking sites enhance users' professional development or long-term career opportunities (Speier & Venkatesh, 2002) and we propose that the more the usage of social networking sites fits a user's professional needs, the stronger the relationship between the usage of social networking sites and values derived from the social networking.

Hypothesis 7 (H7): Professional fit will moderate the relationship between the usage of social networking sites and outcomes: (A) Social, (B) Status, (C) Activity, (D) Self-reactive, (E) Novel, and (F) Monetary such that high levels of professional fit will strengthen this relationship, with the strongest relationship occurring when the usage of social networking sites and professional fit are both high.

Comparisons: General social network site vs Business-oriented social network site

One of the goals of this study is to compare social-oriented social networks (SSN) and business-oriented social networks (BSN) in the perspective of use and incentives. According to identity theory (Abrams & Hogg, 1990), a person plays several roles in the professional and personal life. Identity theory suggests that people tend to seek distinct meanings and expectations based on specific roles. Thus, we propose that users would participate in networks responding to their purpose such as maintaining social relationships and developing professional career which results in divergent benefits. In addition, job fit has been shown to be a critical factor affecting the utilization of technology (Thompson, Higgins, & Howell, 1991) and accounts for the impact of a *specific job's* compatibility with technology (Thompson, Higgins, & Howell, 1991). Consistent with job fit, the task-technology fit model demonstrates the importance of congruence between a *specific task* and technology (Goodhue & Thompson, 1995) and professional fit significantly and positively influences subjective outcomes such as organizational commitment and job satisfaction through IT implementation (Speier & Venkatesh, 2002). Put all together, the more social networking sites meets a user's needs, the stronger the relationship between social networking sites usage and their outcomes. In other words, different types of social networking sites provide users different outcomes according to the fit between users' needs and the social networking site' resources. Facebook, the largest social-oriented social network site, is the fastest-growing social network with over one billion active users and Facebook members can also join groups according to common interests, each other's' hobbies, and musical tastes through the online profiles. Facebook enables users to accumulate friends by exchanging their online profiles which keeps strong ties with friends and to strengthen ties with new acquaintances (Ellison et al., 2014. Thus, social-oriented social network sites are more likely to provide more social, activity, status and self-reactive outcomes than business-oriented social network sites.

Hypothesis 8 (H8): (A) Social, (B) activity (C)status, and (D) self-reactive outcomes are derived more from general social network sites than from business-oriented social network sites.

Business-oriented social network sites such as LinkedIn provides career opportunities, consulting offers, job inquires and business deals by exchanging expertise of members (Dekay 2009). People mostly use LinkedIn to research companies with which they may be interested in working. LinkedIn provides job seekers statistics about the company they want including the ratio of female to male employees, the percentage of the most common titles/positions held within the company, the location of the company's headquarters and offices, or a list of present and former employees. On the other hands, LinkedIn offers recruiters to find potential employees and their LinkedIn profiles as resumes. Thus, we propose that business-oriented sites provide users more monetary and novel outcomes than general sites do.

Hypothesis 9 (H9): (A) Monetary and (B) novel outcomes are derived more from business-oriented social network sites than from general social network sites.

1.3   Methodology

The purpose of this study is to understand the impact of social capital on IT artifacts values through IT artifacts usage and to study how the relationships is moderated by professional fit. To do so, this study is designed to gather information regarding social network usage behavior and perceived values from American social networking site users. Our study's sampling frame is on users who are using social networking sites. In this section, we describe the participants, their selection, the instrument and validation, and the data collection process.

Data Collection

To conduct our research, we used a structured survey method. We created a questionnaire that was administered to individuals who had social network profiles on Facebook and LinkedIn. To ensure the validity and reliability of the survey instrument, a pilot study was conducted. A total of 26 completed surveys were collected during this trial. Based on the results of the factor analysis and the validity test, unfeasible survey items were dropped.

Subsequently, a series of surveys was used to collect data from Facebook and LinkedIn, two of the most popular social networking sites. For the Facebook data, we emailed the survey link to Facebook users. To complement this, a set of online questionnaires was posted in forums related to IT, mobile technology, social networking, and social marketing in Facebook. Given the nature of posting online surveys at social networking sites, it is difficult to calculate a response rate because it is not possible to know how many people have read the survey posts. During three weeks, 154 users in fill out the survey and a total of 141 completed surveys were collected from Facebook. In LinkedIn we posted five survey messages in five forums and 242 responses were collected. 205 of the total responses had complete data and were used to examine the research model. Table 1 shows demographic information about the respondents.

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Table 1. Respondents Demographics

Demographics	Combined (n=346)	Facebook (n=141)	LinkedIn (n=205)
Age			
Under 20	8 (2%)*	8 (6%)	0 (0%)
20-29	102 (29%)	64 (45%)	38 (19%)
30-39	189 (55%)	54 (38%)	134 (65%)
40-49	35 (10%)	13 (9%)	23 (11%)
50-59	11 (3%)	2 (1%)	9 (4%)
Over 59	1 (0.003%)	0 (0%)	1 (0.5%)
Gender			
Male	158 (46%)	72 (51%)	86 (42%)
Female	188 (54%)	69 (49%)	119 (58%)
Education			
High School	4 (1%)	4 (3%)	0 (0%)
Undergraduate	216 (63%)	94 (67%)	122 (60%)
Graduate	126 (36%)	43 (30%)	83 (40%)
Employment Status			
Employed for wage	202 (58%)	65 (46%)	137 (67%)
Self-employed	53 (15%)	11 (8%)	42 (20%)
Out of work and looking for work	6 (2%)	2 (1%)	4 (2%)
Out of work but not currently looking for work	4 (1%)	1 (1%)	3 (1%)
A homemaker	12 (3%)	8 (6%)	4 (2%)
A student	61 (18%)	47 (33%)	14 (7%)
Unable to work	8 (2%)	7 (5%)	1 (0.5%)

Note: * Frequency (Percentage)

Measurement

Reliability of items was checked by examining each item's loading on its corresponding construct. Barclay et al. (1995) suggested that the item loading should exceed 0.70, and the loading of each item in our study met this criteria. Convergent validity was assessed by (1) reliability of items, (2) composite reliability of constructs, and (3) average variance extracted (AVE). As shown in Table 2, composite reliability of constructs exceeded the recommended required minimum of 0.80. Further, AVE, which measures the amount of variance that a construct captures from its indicators relative to the amount due to measurement error (Komiak & Benbasat, 2006), for all constructs exceeded the threshold value of 0.50 (shown in Tables 4 and 5). Hence, all three conditions for convergent validity were met. Discriminant validity between constructs was assessed using the relationship between correlations among constructs and the square root of AVEs. As Table 3 shows, the square root for all the AVEs were greater than the correlations among the constructs, indicating that the discriminant validity criterion was met for all constructs.

Table 2: Composite reliability and Cronabch's Alpha

Model 1				Model 2			
N=346	Number of items	Composite Reliability	Cronbach's Alpha	N=346	Number of items	Composite Reliability	Cronbach's Alpha
ACC	4	0.97	0.95	ACC	4	0.98	0.97
ABL	4	0.98	0.96	ABL	4	0.96	0.94
MTV	5	0.87	0.78	MTV	5	0.92	0.89
CMT	3	0.95	0.90	CMT	3	0.92	0.88
TRS	3	0.95	0.94	TRS	3	0.92	0.88
USNS	5	0.92	0.83	USNS	5	0.82	0.74
SCO	5	0.94	0.92	SCO	4	0.87	0.81
NVO	4	0.90	0.84	NVO	4	0.90	0.86
ATO	3	0.88	0.83	ATO	3	0.92	0.87
MNO	4	0.94	0.91	MNO	4	0.95	0.94
STO	4	0.91	0.87	STO	4	0.88	0.82
SRO	3	0.87	0.81	SRO	3	0.90	0.83
				PFT	6	0.96	0.95

Notes:

1. Model 2 includes Professional fit as a moderator of the relationship between USNS and outcomes.
2. ACC: Accessibility; ABL: Ability; MTV: Motivation; CMT: Commitment; TRS: Trust; USNS: Usage of social networking sites; SCO: Social outcomes; NVO: Novel outcomes; ATO: Activity outcomes; MNO: Monetary outcomes; STO: Status outcomes; SRO: Self-reactive outcomes; PFT: Professional fit
3. Shaded areas are not applicable.

Table 3: Construct validity

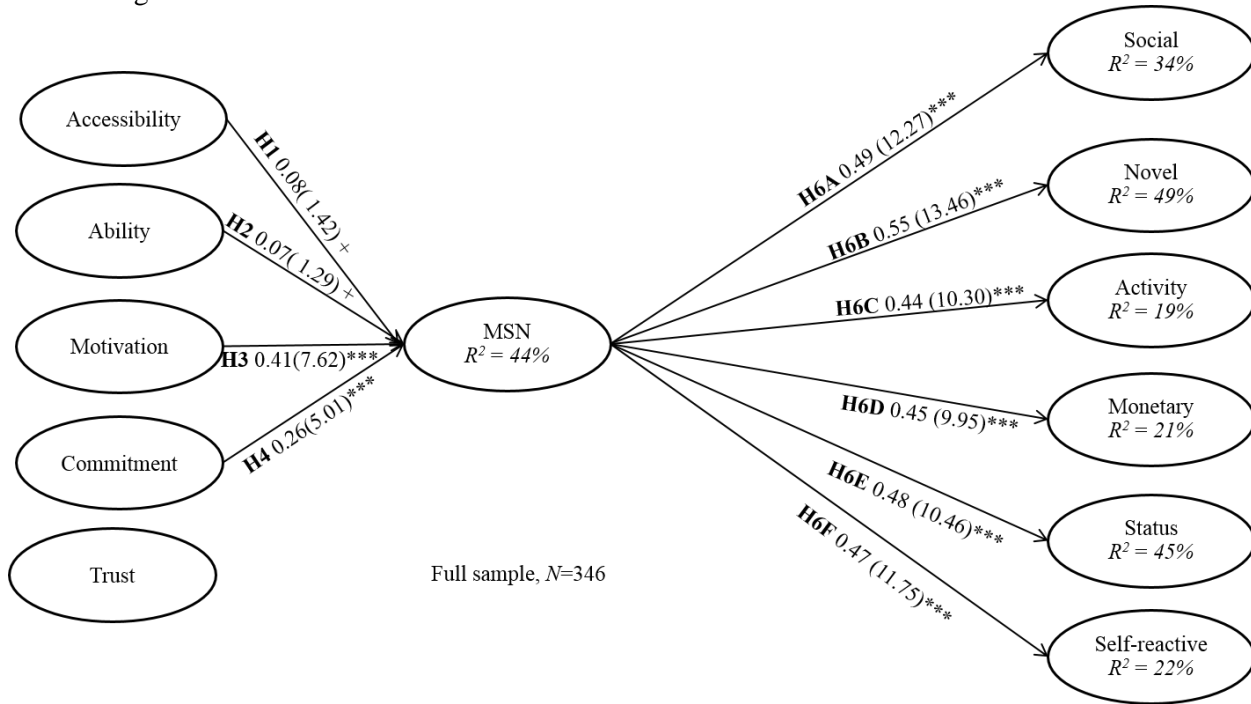|	ACC	ABL	MTV	CMT	TRS	USNS	SCO	NVO	ATO	MNO	STO	SRO	PFT
ACC	0.96												
ABL	0.61***	0.92											
MTV	0.33***	0.43***	0.84										
CMT	0.18*	0.26***	0.67***	0.90									
TRS	0.43***	0.37***	0.37***	0.46***	0.90								
USNS	0.29***	0.35***	0.63***	0.56***	0.31***	0.70							
SCO	0.35***	0.40***	0.61***	0.51***	0.48***	0.47***	0.75						
NVO	0.31***	0.35***	0.58***	0.48***	0.44***	0.55***	0.59***	0.84					
ATO	0.12*	0.17**	0.45***	0.39***	0.08	0.43***	0.28***	0.38***	0.89				
MNO	0.08	0.15**	0.42***	0.32***	0.06	0.45***	0.33***	0.54***	0.72***	0.92			
STO	0.31***	0.32***	0.52***	0.43***	0.50***	0.48***	0.72***	0.68***	0.26***	0.37***	0.80		
SRO	0.16**	0.23***	0.51***	0.42***	0.13*	0.47***	0.42***	0.41***	0.71***	0.64***	0.36***	0.87	
PFT	0.32***	0.27***	0.36***	0.34***	0.50***	0.39***	0.49***	0.61***	0.14**	0.23***	0.62***	0.15**	0.89

Notes:

1. ACC: Accessibility; ABL: Ability; MTV: Motivation; CMT: Commitment; TRS: Trust; USNS: Usage of social networking sites; SCO: Social outcomes; NVO: Novel outcomes; ATO: Activity outcomes; MNO: Monetary outcomes; STO: Status outcomes; SRO: Self-reactive outcomes; PFT: Professional fit

2. ***$p<0.001$; ** $p<0.01$; *$P<0.05$.

3. Diagonal elements are the square root of the shared average variance extracted (AVE) between the construct measures and their measures; off-diagonal elements are correlations between constructs.

DATA ANALYSIS AND RESULTS

PLS (partial least squares, SmartPLS V3) was used for the data analysis. Structural equation modeling (SEM) analysis was chosen over regression analysis, because SEM can analyze all of the paths in a model in one analysis. Within SEM, PLS was chosen over LISREL because this study aims at theory development instead of theory testing - whereas LISREL requires a sound theory base, PLS supports exploratory research.
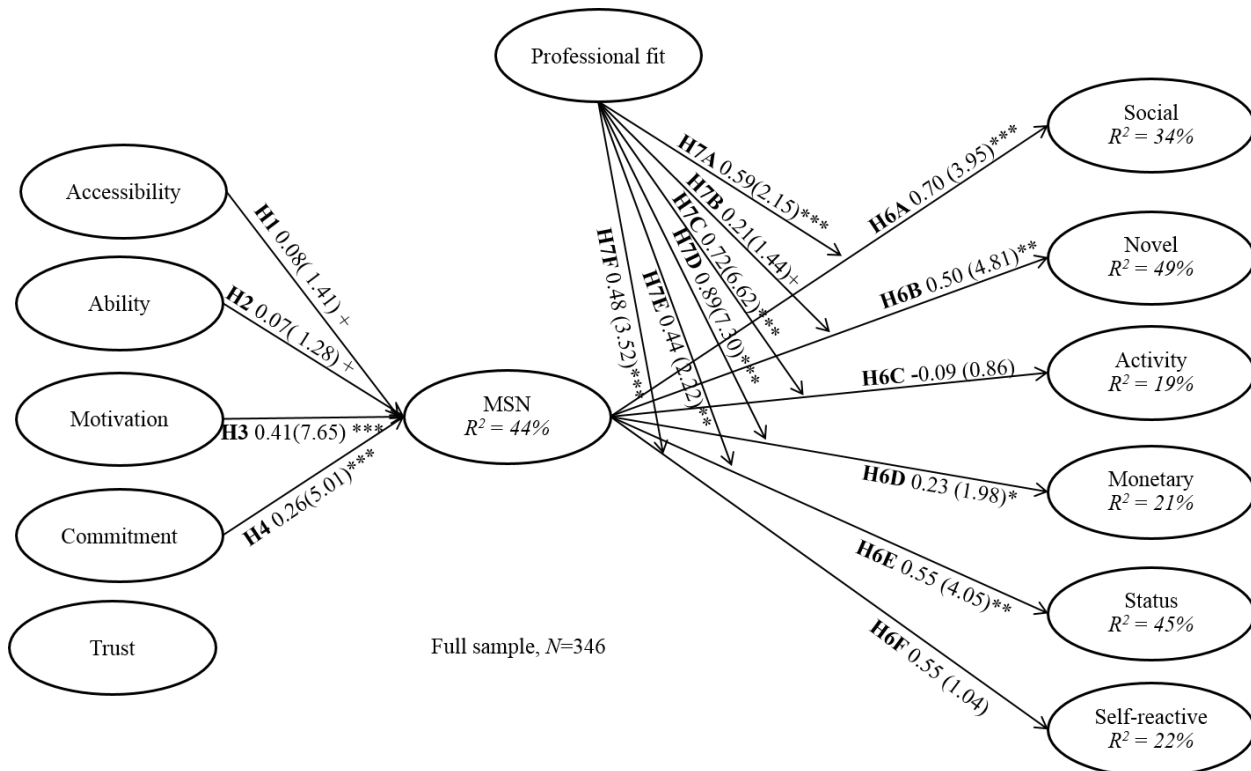
With adequate measurement models, PLS was used to test two models: model 1 (no moderator) and model 2 (with professional fit as a moderator). In all cases, the significance of all paths in the structural model was tested using a bootstrap resampling procedure with 346 cases and resampling of 700 that used randomly selected subsamples to test the PLS model. Figure 2 and Figure 3 show the results of the PLS analysis, including the path loadings, t-values of the paths, and R-squares. Figure 2 and Figure 3 show the validation results of the research model. First, model 1 explains the impact of social capital on usage of social networking sites (USNS) and six outcomes derived from participating in social networking, with the following percentage of variance in USNS and outcomes explained: USNS, 44%; Social outcomes, 34%; Activity, 19%; Status, 45%; Self-reactive, 22%; Novel, 49%; Monetary, 21% (Figure 2). Figure 3 also shows the results of the research model with professional fit as a moderator, with the following percentage of variance in six outcomes explained: Social outcomes, 37%; Activity, 19%; Status, 52%; Self-reactive, 29%; Novel, 53%; Monetary, 28%.

Figure 2. PLS results of Model 1 without moderator

***$p<0.001$; ** $p<0.01$; *$P<0.05$; $^{+}P<0.1$. Path coefficient (*t*-statistics)

`Figure 3. PLS results of Model 2

***$p<0.001$; ** $p<0.01$; *$P<0.05$; $^{+}P<0.1$. Path coefficient (*t*-statistics)

Table 4 summarizes the results of the hypothesis testing. In model 1, as hypothesized, accessibility and ability were significantly related to USNS ($\beta = 0.08$, $p<0.1$; $\beta = 0.07$, $p<0.1$)[1]. Motivation ($\beta = 0.41$, $p<0.001$) and commitment ($\beta = 0.26$, $p<0.001$) in relational social capital were significantly related to USNS. USNS had a significant impact on social outcomes ($\beta = 0.49$, $p<0.001$), activity outcomes ($\beta = 0.44$, $p<0.001$), status outcomes ($\beta = 0.48$, $p<0.001$), self-reactive outcomes ($\beta = 0.47$, $p<0.001$), novel outcomes ($\beta = 0.55$, $p<0.001$), and monetary outcomes ($\beta = 0.45$, $p<0.001$). In model 2, accessibility ($\beta = 0.08$, $p<0.1$), ability ($\beta = 0.07$, $p<0.1$), motivation ($\beta = 0.41$, $p<0.001$), and commitment ($\beta = 0.26$, $p<0.001$) were significantly associated with USNS. USNS had a significant impact on social outcomes ($\beta = 0.70$, $p<0.001$), status outcomes ($\beta = 0.55$, $p<0.001$), novel outcomes ($\beta = 0.50$, $p<0.001$), and monetary outcomes ($\beta = 0.23$, $p<0.05$). Professional fit as a moderator strengthened the relationship between USNS and six outcomes: social outcomes, $\beta = 0.59$, $p<0.01$; activity outcomes, $\beta = 0.72$, $p<0.001$; status outcomes, $\beta = 0.44$, $p<0.001$; self-reactive outcomes, $\beta = 0.48$, $p<0.001$; novel outcomes, $\beta = 0.21$, $p<0.1$; monetary outcomes, $\beta = 0.89$, $p<0.001$.

Table 4. Predicting outcomes: Results of hypotheses Testing

Hypothesis	Model1	Model2
H1: Accessibility → USNS	0.08 (1.42)+	0.08 (1.41) +
H2: Ability → USNS	0.07 (1.29) +	0.07 (1.28) +
H3: Motivation → USNS	0.41 (7.62)***	0.41 (7.65)***
H4: Commitment → USNS	0.26 (5.01)***	0.26 (5.01)***
H5: Trust → USNS	-0.02 (0.42)	-0.02 (0.38)
H6A: USNS → Social outcomes	0.49 (12.27)***	0.70 (3.95)***
H6C: USNS → Activity outcomes	0.44 (10.30)***	-0.09 (0.86)
H6E: USNS → Status outcomes	0.48 (10.46)***	0.55 (4.05)***
H6F: USNS → Self-reactive outcomes	0.47 (11.75)***	0.55 (1.04)
H6B: USNS → Novel outcomes	0.55 (13.46)***	0.50 (4.81)***
H6D: USNS → Monetary outcomes	0.45 (9.95)***	0.23 (1.98)*
H7A: USNS * Professional Fit →Social Outcomes		0.59 (2.15)**
H7C: USNS * Professional Fit →Activity outcomes		0.72 (6.62)***
H7E: USNS * Professional Fit →Status Outcomes		0.44 (2.22)**
H7F: USNS * Professional Fit →Self-reactive Outcomes		0.48 (3.52)***
H7B: USNS * Professional Fit → Novel Outcomes		0.21 (1.44) +
H7D: USNS * Professional Fit → Monetary outcomes		0.89 (7.30)***

Notes:
1. Model 2 includes Professional fit as a moderator of the relationship between USNS and outcomes.
2. ***$p<0.001$; ** $p<0.01$; *$P<0.05$; + $P<0.1$.
3. Path coefficients (t-statistics)
4. Supported hypotheses in bold
5. Shaded areas are not applicable
6. USNS: Usage of social networking sites

To test Hypotheses H8A-D and H9A-B, the comparison of the path significances of two PLS results and a correlation coefficients comparing method were conducted: Facebook vs LinkedIn. The first phase is to analyze two data sets from Facebook (model 3) and LinkedIn (model 4) with SmartPLS respectively (Table 5). As a results, while four causal paths between USNS and outcomes in model 3 (Facebook) are verified (USNS → social outcomes, $\beta = 0.97$, $p< 0.001$; status, $\beta = 0.67$, $p< 0.001$; self-reactive, $\beta = 0.74$, $p< 0.001$; novel, $\beta = 0.48$, $p< 0.001$), two paths in model 4 (LinkedIn) are verified (status, $\beta = 0.41$, $p< 0.1$; monetary, $\beta = 0.54$, $p< 0.001$).

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[1] For the two social capital variables: accessibility and ability, a significance level of 0.1, the acceptable T-value would be 1.282, was applied.

Table 5. Predicting outcomes: Results of PLS tests of Facebook and LinkedIn

Hypothesis	Model3 (Facebook)	Model4 (LinkedIn)
Accessibility → USNS	0.09 (0.76)	0.25 (3.68) ***
Ability → USNS	0.26 (2.41) **	0.01 (0.16)
Motivation →USNS	0.17 (1.74)*	0.29 (4.43)***
Commitment →USNS	0.32 (3.17)***	0.30 (4.30)***
Trust →USNS	0.05 (0.49)	0.21 (3.58) ***
USNS → Social outcomes	0.97 (4.09)***	0.20 (0.71)
USNS → Activity outcomes	0.26 (0.95)	0.16 (0.69)
USNS → Status outcomes	0.67 (4.13)***	0.41 (1.46) +
USNS → Self-reactive outcomes	0.74 (3.22)***	0.06 (0.19)
USNS → Novel outcomes	0.48 (3.82)***	0.20 (0.87)
USNS → Monetary outcomes	0.11 (0.52)	0.54 (2.29)**
USNS * Professional Fit -> Social Outcomes	1.12 (2.96)**	0.11 (0.27)
USNS * Professional Fit -> Activity outcomes	0.24 (0.56)	0.45 (1.34) +
USNS * Professional Fit -> Status Outcomes	0.68 (3.01)***	0.26 (0.63)
USNS * Professional Fit -> Self-reactive Outcomes	0.82 (2.40)**	0.34 (0.80)
USNS * Professional Fit -> Novel Outcomes	0.42 (2.42) **	0.11 (0.35)
USNS * Professional Fit -> Monetary outcomes	0.14 (0.44)	1.01 (3.03) ***

Notes:

Model 2 includes Professional fit as a moderator of the relationship between USNS and outcomes.

***$p<0.001$; ** $p<0.01$; *$P<0.05$; + $P<0.1$.

Path coefficients (t-statistics)

Shaded areas are not applicable

USNS: Usage of social networking sites

In the last phase, the correlation coefficients between USNS and outcomes for two groups were compared. This test ensures whether the correlations between USNS and outcomes are significantly different in Facebook and LinkedIn. Table 6 presents the results of the correlation coefficient difference test. This statistical comparison was carried out using the following procedure;

$Z_{Difference} = (z_{r1}-z_{r2})/sqrt(1/(N_1-3)+1/(N_2-3))$,

where z_{r1} = Z score of correlation coefficient of data 1 (Facebook)

z_{r2} = Z score of correlation coefficient of data 2 (LinkedIn)

N_1 = sample size of Facebook data

N_2 = sample size of LinkedIn data

Z score = $(½)log_e((1+r)/(1-r))$

where   r = correlation coefficient

Table 6: Results of Correlation Coefficient Comparing

Variables	Correlation coefficient Facebook	Correlation coefficient LinkedIn	Z score Facebook	Z score LinkedIn	$Z_{Difference}$	Significance
Social outcomes	0.97	0.20	2.03	0.20	-16.52	Significance***
Activity outcomes	0.26	0.16	0.27	0.16	-0.94	NS
Monetary outcomes	0.11	0.54	0.11	0.61	4.48	Significance***
Status outcomes	0.67	0.41	0.82	0.43	-3.49	Significance***
Self-reactive outcomes	0.74	0.06	0.95	0.06	-8.10	Significance***
Novel outcomes	0.48	0.20	0.52	0.20	-2.90	Significance**
Monetary outcomes	0.11	0.54	0.11	0.61	4.48	Significance***

Note: Correlation with USNS. * $p< 0.05$, ** $p< 0.01$, *** $p< 0.001$. NS = Not significance

Table 7: Results of Hypothesis Testing (Comparison of Facebook with LinkedIn)

Hypothesis	Causal path	Facebook path Significance	LinkedIn path Significance	Correlation coefficient difference test	Hypothesis supported
H8-A	USNS → Social outcomes	Significance***	NS	Significance***	Yes
H8-B	USNS → Activity outcomes	NS	NS	NS	No
H8-C	USNS → Status outcomes	Significance***	Significance+	Significance***	Yes
H8-D	USNS → Self-reactive outcomes	Significance***	NS	Significance***	Yes
H9-A	USNS → Novel outcomes	Significance***	NS	Significance***	No
H9-B	USNS → Monetary outcomes	NS	Significance**	Significance***	Yes

Note: + $p< 0.01$; * $p< 0.05$, ** $p< 0.01$, *** $p< 0.001$. NS = Not significance

The results of the tests support all hypotheses with the exception of H8-B and H9-A. Table 7 represents the results of hypothesis testing. While USNS is significantly and positively associated with social outcomes (H8-A) and Self-reactive (H8-D) for Facebook, these are not significant for LinkedIn. In addition, the correlation coefficients between USNS and three outcomes were significantly different: H8-A, social outcomes, $Z_{Difference} = 16.52$, $p< 0.001$; H8-B, status, $Z_{Difference} = 2.90$, $p< 0.001$; H8-D, self-reactive, $Z_{Difference} = 8.10$, $p< 0.0001$. Status incentive (H8-C) is supported because even though USNS is significantly and positively related to it for both groups, the significance level of status incentive for Facebook ($p< 0.001$) is higher than that of LinkedIn ($p< 0.1$), and the correlation coefficients were significantly different ($Z_{Difference} = 3.49$, $p< 0.001$). While USNS is significantly and positively associated with monetary incentive (H9-B) for LinkedIn, it is not significant for Facebook and its correlation coefficients are significantly different: H8-A, social outcomes, $Z_{Difference} = 8.10$, $p< 0.001$. Activity incentive (H8-B) is not supported since both Facebook and LinkedIn don't have significant relationships with USNS, and the correlation coefficients were not different from each other. Novel incentive (H9-A) is also not supported because the direction of the correlation coefficients difference is opposite as hypothesized. This will be discussed in the limitations section.

Due to the nature of the data collection, this study tested for common method bias using the PLS marker variable approach, which is designed to estimate common methods bias from PLS path modeling (Ronkko & Ylitalo, 2011). The current study developed a new construct – marker indicator -- to the PLS model, which is neither an individual item nor a complete scale. To estimate common method bias in the data, this research used the mean correlation between the marker item and the study items. The mean correlation was 0.024, which is less than a rule of thumb of 0.05, thus suggesting the common method bias is not a concern in the data set.

2   DISCUSSION AND CONCLUSIONS

This research represents the first empirical study of social capital and its impact on IT artifacts usage and benefits from usage by exploring user-IT artifact interaction in mobile technology environments. Just as the literature has established the importance of social capital embedded in interpersonal relationships, we believe it is equally useful and important to recognize social capital as something built through interactions with an IT artifact and which affects technology implementation. We have argued that mobile technology usage will eventually be better understood when it can be placed in the context where mobile IT artifacts are perceived as social actors that interact with users and when the resulting social capital is investigated. Our findings provide strong support that accessibility, ability, motivation and commitment influence usage of social networking sites (USNS) and USNS affects all six benefits.

In model 1, five dimensions of social capital predicted social networking sites to fulfill the main purpose of this paper, investigating why people participate in social networking sites. The data analysis shows that accessibility, ability, motivation and commitment have a significant effect on social networking. These results support for Adler and Kwon (2002)'s social capital theory in offline social networks of practice context. The PLS results for accessibility indicate that Hypothesis 1 was supported. Users who can access all the information in social network sites through interaction with networks rather than individual connections with each source provider are more likely to participate in social networking to obtain broad and in-depth information. Hypothesis 2 was also supported, as ability of communicating with networks was a positive and significant predictor of social networking. That is, if users have more cognitive ability to understand norms, culture, and language about networks, then they are more likely to interact with networks and others through social networks. Hypothesis 3 also was supported. As hypothesized, users with more bounded solitary through shared destiny and instrumental motivation are more likely to interact with networks. Hypothesis 4 was also supported and indicated that commitment is an important predictor of social networks usage. That is, users with more perceived obligation to maintain relationships with the networks are more likely to interact with networks. While hypotheses 1, 2, 3, and 4 were supported, Hypotheses 5 were not supported. This will be discussed in the limitations section.

In addition, model 1 examines the outcomes derived from social networking sites. The data analysis indicates that social networking sites has significant effects on six outcomes, thus supporting Hypotheses H6A, H6B, H6C, H6D, H6E, and H6F. Users who interact more with social networking sites are more likely to get more value from these networks. In the context of IT artifacts implementation, users with more interaction with networks report they are more likely to get support from networks and more friends to interact with, to help others in networks, to get more information from networks, and to save time and money. In addition, users who participate in social networking sites tend to obtain self-relief and build their status.

In model 2, the moderating effect of professional fit on the links between social networking sites outcomes was predicted and Hypotheses H7A through H7F were supported. The findings are indeed important in terms of understanding professionals' social networking sites and its benefits. Social networking sites provides professionals a chance to build their 'brand' by making themselves respected and liked. In addition, professionals tend to have more opportunity to extend their relationships with other professionals. There has long been a lack of moderators between IT implementation and benefits from usage. By examining and incorporating the fit between users' career paths and IT support to measure how IT improves and builds users' professional careers, this paper suggests that such indicators will provide very meaningful insights into how the fit between users' needs and IT support leads to benefits from IT implementation. We therefore suggest that antecedents of IT implementation in this paper can contribute to IS research by understanding.

Comparing social-oriented social networks with business-oriented social networks

Results in the table 8 showed that the path coefficient from social networking sites to social (H8-A), status (H8-C), and self-reactive outcomes (H8-D) in the PLS model for Facebook was significantly stronger than the corresponding path coefficients in the structural models for LinkedIn. As hypothesized, given the social-oriented nature of Facebook, users participate in Facebook expecting to maintain social relations by sharing their interests, views, thoughts, and experiences, to develop and gain their personal identity, respect, and support through personal acceptance within Facebook, and to compensate themselves by distracting them from stressful situations. In addition, the path coefficient from social networking sites to monetary outcomes (H9-B) in the PLS model for LinkedIn was significantly stronger than the corresponding path coefficients in the structural models for Facebook. A majority of members registered in business-oriented social networking sites are concerned to find opportunities that may advance their careers.

Theoretical Implications

One of the most welcome recent developments in Information Systems scholarship has been the growing interest in individual's use of technology in a diversity of contexts. Recent IS research suggests that although current technology acceptance theories are useful, incorporating other critical factors is necessary to improve their explanatory power (Hsieh, Rai, & Keil, 2008). From the perspective, this study extends previous models to explain the role of social capital embedded in user-IT artifact interaction in mobile technology use. By doing so, research investigating in greater depth how IT artifacts, as social actors, interact with users and how these interactions impact users' technology adoption and value derived from usage has two benefits: 1) extension of the IT artifact discussion within the IS discipline and 2) extension of the traditional theories related to technology adoption and innovation diffusion.

First, conceptualizing IT artifacts as social actors beyond just a tool for productivity and providing a potentially more accurate model of IT artifact research from the interaction-centric perspective (Al-Natour & Benbasat, 2009) helps to extend the IS discipline by including newly-introduced phenomena (Whinston & Geng, 2004). This study also introduces a new variable – social capital, which has not been previously examined as an antecedent of IT artifact implementation. Although the variable appears in some well-established theoretical models such as social capital theory, there has been a need to empirically test the implications of these theoretical models in the context of social networking sites and their impact on social networking sites and its benefits. Including these additional dimensions will carry us toward a more comprehensive understanding of IT implementation and the impact of IT artifact on individuals and organizations. In addition, for the social network theorists, the current study presents meaningful extensions by exploiting new IT phenomena.

Second, traditional models of technology adoption, such as the technology acceptance model (TAM), the task technology fit model, and innovation diffusion theory should incorporate new constructs to explain the role of IT artifacts as communication-related mediators in the technology adoption process and benefits derived from IT use. This study represents a systematic approach to understand and predict outcomes of social networking sites using social cognitive theory. The development of a diverse set of IT artifacts outcomes is in response to several IS researchers (DeLone & McLean, 1992) and IT managers who encouraged building cumulative knowledge in IS success areas. In doing so, this study aims to encourage IS researchers to view outcomes from IT artifacts implementation with a variety of perspectives in order to more fully understand IT artifacts implementation and usage. In addition, the current study delineates how to utilize social networks theory to explain the processes of technology adoption and implementation by employing social capital as a determinant of IT artifacts usage and benefits from the usage. Previous studies have focused on the relationships between network characteristics and system use (Sykes et al., 2009) rather than the impact of resources derived from networks of practice such as social capital. The framework provided by the current study to evaluate the effect of social capital on networks usage and values will help future researchers utilize social network theory to explain job and organization performance. Finally, this research also brings a new context to extend the generalizability of technology adoption studies.

Managerial Implications

This study also has implications for social network practitioners, social network marketing managers, and professionals. The main argument in this research has been that social capital embedded in IT artifacts is influential in the social networking sites and outcomes.

This argument can be applied to the organizational setting such that organizations can use social networking sites for creating and sharing knowledge and improving the effectiveness of IT in organizations as well as work performance. For organizations, building social capital requires not only establishing more social ties through collaborative technology, such as shared knowledge repositories and chat rooms, but also through nurturing motivation, commitment, and trust.

Our results suggest that practitioners can benefit greatly from the comparisons of two different social networking sites. The outcomes derived from social networking sites appears to vary from one site to another. This study is the first to compare a social-oriented social networking site with a business-oriented social networking site. This finding is useful for practitioners developing business strategy of their networking sites. In particular, practitioners need to take into account such differences when offering features on their sites. For instance, business-oriented social networking sites should provide features related to monetary services to meet their users.

Limitation and future research

Several limitations should be considered when interpreting the results of this study. First, the data were collected from two major social networking sites, which may restrict the applicability of the results to other populations. However, users of the sites are social networkers, and the site is targeted toward professionals and their relationships. The sample collection is a good match with the study's main target population, that is, to examine the outcomes of social networking for general and business purposes.

A second limitation of this dissertation is the possible presence of social desirability bias when self-reporting "Social Networks Usage." Even though the system usage or information technology usage construct has played a central role in information systems research since 1970s, the usage construct over time has been operationalized by a diverse set of unsystematized measures (Burton-Jones & Straub, 2006). A systematic approach for reconceptualizing the IT artifact usage construct to overcome the lack of theory and lack of validation in prior usage construct studies would be helpful in the future. For example, the self-reported survey method to measure usage construct in the current study may have systematic errors. Even though it is difficult to get actual usage data, this problem would be reduced (or eliminated) by using actual usage data.

Finally, trust can be both an antecedent of social capital (Coleman, 1988) and a dimension of social capital (Nahapiet & Ghoshal, 1998). This research looked only at the "dimension of social capital" in order to understand trust. If trust is actually operating as an antecedent of social capital, once people build their trust toward networks, then trust as a social capital dimension is not as important as other factors to maintain their interaction with networks (Coleman, 1988). This encourages researchers to explore antecedents of social capital by examining trust with other potential factors.

Conclusions

We have introduced the concept of "social capital" and propose that this is one of the key reasons people might use social networking sites. We have provided a conceptual model and research hypotheses that allow us to investigate the linkages between social capital, the use of social networking sitess, and the value people derive from the use of such networks. Additionally, our empirical studies offer preliminary support of this model. We believe our model extends our knowledge of (1) the traditional theories related to technology adoption, (2) the impact of mobile technology, and (3) IT artifacts in the IS discipline.

This study developed and validated a model of IT artifacts implementation and value. Drawing upon the social capital and social cognitive theory, the current study proposed theoretical support for factors affecting IT artifacts implementation and outcomes of received from IT artifacts implementation. The study was motivated by the premise that people tend to interact with IT artifacts based on social response theory (Moon, 2000). As hypothesized, the study found that users are willing to interact with networks when they are able to understand norms, culture, and language in networks, when they are motivated by bounded solidarity with networks, and when they feel obligations to maintain their relationships.

These results shed new light on IT artifacts implementation and value by exploring user-IT artifacts interaction, and should prove useful for both theory development and managerial practice. This study should help to understand that the factors that contribute to social networking sites cannot be explained only by theories such as TAM, innovation diffusion theory, or task-technology fit, but that they are also anchored in benefits from social networking sites.

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