

A Study on the Factors that Influence SNS Users' Usage of Corporate SNS Sites: Focusing on Twitter

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Abstract

Many companies are using Social Network Services (SNS) sites for their Marketing and Advertisement. This study would explain the process of using corporate SNS especially Twitter based on Technology Adoption Model (TAM).

This study has established a hypothesis that three factors (Social Identity, Interaction and Trust for companies) would affect using corporate SNS.

This study would survey users of corporate SNS and find whether above three factors affect TAM processes. Through the survey it would verify that above three factors affect TAM processes and perceived usefulness & ease of use affect use of corporate SNS.

Keywords: Corporate SNS site, Twitter, Social Identity, Interaction, The trust for companies

Chapter 1. Introduction

1.1 Background and Purpose of the Study

Human beings' desire for connection is satisfied by the mechanism of people-to-people relationships such as conscious contact, conversation and sharing experience with one another. Today, the method of connection can be divided into online and offline connection. Since it is nearly impossible to prove one's existence just by staying online, people rely on typing in their opinions or adding replies to other people's opinions. In order to satisfy this basic desire to express one's opinions and share them with others, the so called "Social Technology" such as Social Network Service (SNS) has emerged, and those services are growing at a remarkable pace. Facebook and Twitter are the most well-known services and the number of users stand at tens or hundreds of millions worldwide. And companies around the world have growing interest in finding effective ways to use these SNS sites for corporate innovation or marketing. Many companies in and out of Korea have been found to be implementing a variety of customer-related activities on Twitter, in particular.

Companies have recognized the utility value of the SNS and are making efforts to enhance their performance by strengthening customer contacts. However, identifying the factors that influence customers' or potential customers' use of corporate SNS sites rather than their personal SNS sites within the same platform will serve as an important factor that can help companies determine the direction towards which they will have to pursue in running their SNS sites.

Therefore, this study will focus on analyzing the factors that can influence the users' intention to use corporate SNS sites from the perspective of Technology Acceptance Model, thereby providing a theoretical foundation on which

companies should run their SNS sites. Since SNS sites' interface with users differ one from another, the study will focus on Twitter, which is used by many companies.

Chapter 2. Theoretical Background

2.1 Concept of SNS and Leading Studies

2.1.1 Concept and Definition of SNS

Social Network Service is a kind of service that allows people to form online social networks. It also helps people build individual-to-group relationships, with which people can share useful information.

Boyd & Ellison (2007) defined the SNS as a web-based service that helps people form individual's profile, share the connections through people-to-people relationship, and support individual interaction with one another based on that connection[4].

The word "Social" is an English word that comes from "society," and it implies "a gathering of people." "Network" means "a net of relationships which is created by a series of interconnections." The combination of these two words, "Social Network," can be expressed as "a net of relationship where people are connected to each other." Therefore, in a broader sense, it can be thought of as something that is similar to online communities which allow people to create relationships. However, SNS and online communities are different. Online communities are group-centered, where people with similar interests gather and form groups, whereas SNS is more of an individual-centered, where an accumulation of individual-to-individual relationship can create a bigger network[8].

2.1.2 Leading Studies on SNS

Domestic studies on SNS and mobile SNS mostly focus on the emergence of SNS, categorization of SNS types and researches on SNS of each type based on the web 2.0 concept. In addition, those studies more often than not pay attention to SNS' function of building social relations or providing better SNS environment (centered on user interface) based on existing SNS.

First, let us take a look at the studies related to SNS. Choi, Seon-mi (2009) analyzed existing SNSs such as Cyworld, Myspace, Facebook and Twitter and found out how they were different from one another. For her research, in-depth interviews with SNS users were conducted, and she found out users' usage patterns for each type of SNS[5]. Lee, Si-hyung (2010) said that SNS consists of services based on human network, and with those elements SNS can increase service traffic and can even bring about network expansion to attract new users[14]. Moreover, she suggested a human

network visualization model. Next, on studies related to mobile SNSs, Jeon, Hee-seong and Choi, Min-soo (2009) did a research on micro-blogs as a new channel of communication[11]. They conducted an analysis on micro-blogs by studying its concept, its current status in Korea and the new kind of communication characteristics. Kwon & Wen (2009) did a positive research on the factors that influence the usage of SNS[13]. With their study, they explained that there is a correlation between the intension to use SNS and altruism, tele-presence and social identity.

Most of the leading studies on SNS propose ways to further activate or utilize SNS. However, it is difficult to find any research on factors that affect the usage intention in a particular context of corporate SNS, which is one of the interest parties of SNS, at a time when SNS is being utilized as a significant means of promotion and marketing for businesses. Therefore, this paper, as a positive research, will focus on the factors that affect the usage intention of corporate SNS, with users who use them as subjects.

2.1.3 Current Status of Domestic Corporate SNS Sites

Companies use SNS for three reasons. First, they use SNS as a marketing tool to secure potential customers. By using SNS, they can reach and be together with customers who use SNS, respond to their opinions and secure potential customers. Furthermore, this can be developed into an effective marketing tool for the company. Second, they use SNS as a means to listen to customers' opinions. In the past, companies would carry out customer survey few times a year on a regular basis and reflect their opinions. However, SNS is now allowing businesses to get to know rapidly changing trend and have customer opinions real-time. Third, businesses use SNS in order to facilitate internal communications. By creating a platform which helps share knowledge within the firm, company's performance can be enhanced.

Companies are making use of SNS for these various reasons and purposes. In Korea, companies of various industries including IT companies are eagerly opening official Twitter or Facebook sites. According to a survey on the usage of SNS as of the end of 2009, among the companies that replied that they were running SNS, those that were using Twitter stood at 37%, Facebook at 29% and blog at 14%. It was shown that one third or one fourth of businesses use SNS such as Twitter or blog for marketing purposes. In the case of Korean businesses that run their SNS sites, KT and Hanhwa S&C use SNS for recruit purpose, Hanhwa and Industrial Bank of Korea for marketing and many other prominent companies of Korea including KT, LG Electronics and Samsung Group for customer satisfaction purpose.

Furthermore, it is worth taking note at the fact that a growing number of SNS sites are run by heads of prominent conglomerates. Even though they are run as individual SNS sites, they help improve the overall image or profile of their companies since direct communication with them, which can have promotional effect on the company, is possible.

2.1.4 Twitter

Twitter began as an R&D project by Evan Williams and Noah Glass inside a startup in San Francisco. Its service was provided since March, 2006, and it was later separated from

Odeo in April 2007 and turned into a newly spun-off Twitter Inc. The biggest characteristic of Twitter is that it allows users to update their opinions or any ideas by sending messages within 140 characters to their friends who have agreed on receiving messages.

Since it is possible to share different people's ideas and behaviors and exchange information through Twitter, users can get the feeling of talking with their friends. And this is why Twitter can be seen as a private media for exchanging information. Another attractive aspect of Twitter is that users can get a variety of different opinions real-time on social issues and can feel general opinions themselves. That is to say that private opinions and arguments that used to stay at private level can now be delivered to many different people real-time, and this provides a channel by which individual ideas and opinions can be connected to the rest of the world.

In Korea, SNS sites such as me2day in the name of "micro-blog" provide services similar to that of Twitter. Since the messages are short, number of posts is high, and users do not feel a great burden for running them. In fact, Twitter is not as popular in Korea as in overseas market. Since the number of mobile devices or smartphone users was high in the overseas market, Twitter, which allows messages within 140 characters, was very popular. However, with the introduction of smartphones in Korea delayed, usage of Twitter in mobile web environment has been limited. However, with widespread of smartphones in the Korean market in 2009, the number of Twitter subscribers and the rate of its usage has rapidly grown. According to Twitter's own report, a whopping 70 percent of users were using Twitter on mobile devices and separate social networking apps. Therefore, Twitter users are mostly in their 20's to 40's. Most of these people find it hard to find the time to use social media for fun, and they want to send news to others quicker than how they used to share their ideas or knowledge through blogs. Twitter allows users to deliver information to others by links[12]. Twitter is a social media that is most rapidly expanding on the internet, and the number of its subscribers is increasing at a remarkable speed. The number of Twitter users in Korea has also increased rapidly from 400,000 as of January, 2010 to 1.5 million as of June, 2010.

Smartphone users can expose whatever information they want to unspecified individuals through Twitter. It is also possible for them to talk to anybody connected by web and receive responses immediately. Not only does Twitter allow users to communicate with their acquaintances but also to expand their relations to those who have common interests and even to celebrities. Korean people's interest in Twitter has rocketed with tremendous popularity of smartphones and twitters of famous people including celebrities.

2.2 Social Identity

The theory of social identity is focusing on when and for what reasons individuals, as part of social groups, act as one[12]. Different from personal identity, social identity means an individual's position in social group[24].

Individuals tend to behave in a way that conforms to their identity. And as their sense of belonging to a certain group gets stronger, they tend to take the success of their groups as that of their own and make concerted efforts for the group's development and success[3].

Furthermore, in a positive research on the factors that affect

usage of SNS, social identity was found to have great influence[13]. Therefore, this study will focus on identifying social identity, which has been found to be one of the factors that affect the use of SNS, in a particular context of corporate SNS.

2.3 Interactivity

Before the emergence of the internet, interactivity was thought of as one part of interpersonal communication. In today's internet-centered environment with the development of information technology, however, it has emerged as an important concept. Interactivity, which is the biggest characteristic of the internet, has become the subject of many studies. Definitions of interactivity can be categorized on the basis of primary focus of the authors on feature, process, perception, or combined approaches.

The feature-based approach to interactivity emphasizes web site's characteristics as media. Interactivity is a computer-based communication system ability with which senders can exchange the roles among receivers real-time or delayed-time, so that they can control the speed, format and contents of communication. In the concept of interactivity focusing on its feature as a website media, user control is emphasized. Scholars who approach the concept of interactivity in the process of exchange activities between communicators define it with their focus on communicators' behaviors such as mutual exchange or response. Rafaeli (1988) defined interactivity as a degree of relevance that a second exchange, which is related to the first exchange, has with the third exchange in the process of a series of communication. He considered responsiveness as the basic concept of interactivity[18].

In the concept of interactivity focusing on the process of exchange between communicators, responsiveness is taken as an important factor. According to the study of Suh, Kun-soo (2003), interactivity means the level of communication or change of opinions or information between members of community[22].

Newhagen et al. (1996) was the first to verify in his study the concept of interactivity as a form of psychological status, and he defined perceived interactivity as a two-dimensional concept comprised of a sense of self-efficacy and sense of system efficacy[17].

The concept of interactivity can be defined from different perspectives, and as was studied upon in existing researches, interactivity is regarded as one of the important factors that affect online communication. Therefore, I would like to identify interactivity as an important factor that affects the usage of corporate SNS sites, out of all SNS sites which are currently emerging as significant subject of online communication.

2.4. Customer Trust

Throughout many fields of studies including psychology, politics, economics, anthropology, history and business management, the concept of trust has been attracting scholars' attention. Some scholars such as Moorman (1993) have conceptualized trust as a sense of expectation that is created by individuals and groups in forms of words, promises and written documents, and they have defined trust as a conviction that people come to have towards the promises with others on confidence or even threats[16].

They also regarded trust as a behavioral trigger that determines mutual and long-term relationships between companies. They mentioned about the importance of trust building in relationship between groups and said that trust accompanied by immersion is a vital parameter for generating the necessary cooperative behaviors help reach successful alliance of companies[16].

In marketing, the concept of trust is regarded as a significant factor for creating and developing market relations. The relation of cause and effect that exist between buyers and sellers or securing customers and customer loyalty is generated through the medium of trust[2]. Trust becomes a significant empirical parameter that creates corporate relations with customers and further developing those relations[21]. Relationship Marketing, in particular, focuses on trust since trust is perceived as an important element in companies' relationship marketing strategies[16].

Recently, many scholars define trust in multi-dimensional structure. Regarding this multi-dimensional definition, taking a different view on the level and dimension that comprise trust is said to clarify the influence and better explains the concept of trust[10].

The studies that have provided multi-dimensional definition of trust and its make up elements are as follows. The size of online shopping malls is an important element for trust, and they proposed a hypothesis that these elements may differ according to individual tendency on trust. Ryu, Il & Choi, Hyuk-ra (2003) conducted a study on the property of trust in B2C e-commerce and presented the characteristics of internet vendors, individuals and the environment as elements that affect trust building[20]. And as a result of their analysis, perceived size, evaluation, capacity, familiarity and the third person authentication were upheld as factors to building trust. It was also found that trust had a profound influence on the willingness to purchase company's goods or services.

The willingness to buy certain goods can make people think that on-and-offline information provided by the company as something that they need to purchase as well. Therefore, in this study customer trust for companies will be regarded and identified as an element that affect customers' willingness to use corporate SNS sites.

2.5 Technology Acceptance Model (TAM)

When we look at the existing studies on the factors for and factors against users' faith and attitudes in their intention to accept new information system, we can see that there are four main theories that have identified the process of users accepting information technology; the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Technology Acceptance Model (TAM) and Innovation Diffusion Theory (IDT)[23].

TAM was first introduced in doctoral thesis of Davis in 1986 and was for the first time made an official theory in 1989. Since then, it has been applied several times to researches related to acceptance of information technology. In order to explain people's behavior of using computers, Davis proposed Technology Acceptance Model with which he explained that the users' intention to use a certain system determines actual use, and the intention to use that system is determined by users' attitude, and users' attitude is determined by Perceived Usefulness (PU) and Perceived

Ease-to-Use (PE) that comprise two beliefs towards users' acceptance. In TAM, PU is defined as the degree to which a person believes that using a particular system would enhance his or her job performance, and PE is defined as the degree to which a person believes that using a particular system would be free from effort[6].

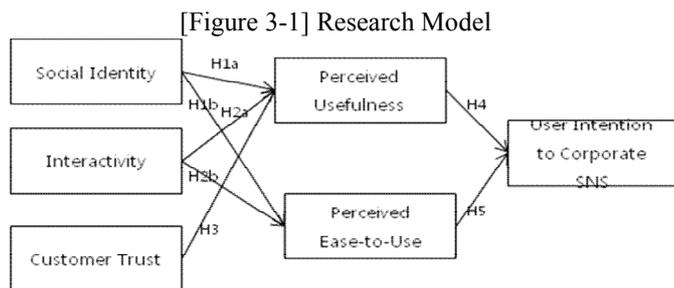
Since the proposal of TAM in 1989 by Davis, many studies have supported the basic hypothesis of TAM, and it has now become a generalized technology acceptance model of users[8].

Since TAM has been adopted in applications to many information technologies as was identified in many researches, this study will be implemented by formulating a study model on the basis of TAM on the factors that influence the use of corporate SNS sites.

Chapter 3. Research Methodology

3.1 Establishment of Research Model

In this study, a research model shown in [Figure 3-1] is created in order to identify social identity, which has been identified in existing studies as a factor that influences the use of SNS, and interactivity, which has been proven to be a factor that influences the intention to use existing blogs or websites, in other forms of contents called "corporate SNS" from the viewpoint of TAM and also to identify a factor that influences the intention to use corporate SNS sites through customer trust towards companies that has been found to be a factor that influences intention to purchase on online shopping malls.



3.2 Research Hypothesis

In other studies, social identity has been identified to affect the intention to use SNS. Therefore, the social identity of customers who are going to use corporate SNS sites will have influence on their use of corporate SNS sites.

H1 (Social Identity)

- (a) Social Identity relates positively (quantity) to PU.
- (b) Social Identity relates positively (quantity) to PE.

Customer activities including exchange of information with companies or other customers through SNS supplements or strengthens their desire for interaction in real world. Interactions through SNS sites will influence customers' use of corporate SNS sites.

H2 (Interactivity)

- Interactivity relates positively (quantity) to PU.
- Interactivity relates positively (quantity) to PE.

Customer trust has been found to influence customers' intention for purchase in commercial transaction through websites (Yu, Il-la, Choi, Hyeok-ra 2003). The information provided by SNS sites can be regarded as companies'

intangible goods. Therefore, customer trust will influence customers' use of SNS sites.

H3: Customer trust towards companies relates positively (quantity) to PU.

It has been identified in the theory of TAM that PU has positive influence on intention to accept technology, and many studies have empirically shown that the PU has an influence on the intention to use information system. Therefore, the PU will have influence on usage intention.

H5: PU relates positively (quantity) to customers' (users') intention to use corporate SNS sites.

The theory of TAM showed that the PE has positive influence on the intention to accept technology. Therefore, PE will have influence on usage intention.

H6: PE relates positively (quantity) to customers' (users') intention to use corporate SNS sites.

3.3 Operational Definition of Variables Studied

The operational definition of variables studied and measured items are shown in Table 3-1.

3.3.1 Social Identity

Social identity signifies the degree of perception of one's intention to belong to a certain site through interaction with others within the SNS site[11]. And a 7 point Likert scale was used to measure social identity.

3.3.2 Interactivity

Interactivity is bidirectional behavior of users who want to share and make use of information with companies or other users of certain SNS sites by using SNS sites. The measurement was done on three items by amending and supplementing the surveyed items on the aspects of interactivity related to sharing communications and information knowledge that Heo, Seong-guk & Choi, Jae-hwa (2008) had used on their study on blogs. Seven point Likert scale was used[8].

3.3.3 Customer Trust in Company

Customer trust in company is one's inclination to trust information or to trust itself, and it is defined as individual's belief or confidence in certain company that is accumulated by his or her on-and-offline experience in a company[10]. To measure this, the surveyed items of a study which is related to purchase intention in online shopping malls were amended and supplemented. In this study, a total of three items were surveyed, and the 7 point Likert scale was used for the measurement.

3.3.4 Perceived Usefulness

Perceived usefulness is defined as the degree to which a person believes that using a certain corporate SNS site would enhance his or her job performance[23]. Four items were included in the survey on perceived usefulness, and the seven point Likert scale was used for the measurement.

3.3.5 Perceived Ease-to-Use

Perceived ease-to-use is defined as the degree to which a person believes that using a certain corporate SNS site would be free from effort[23]. A total of three items were included in the survey, and the seven point Likert scale was used for the measurement.

3.3.6 Intention to Use Corporate SNS Site

This usage intention is defined as the degree to which users intend to peruse or use information on corporate SNS sites[23]. In order to measure this, three items were included in the survey, and the seven point Likert scale was used.

[Table 3-1] Operational Definition of Variables

Variable	Operational Definition	Measured Item	No. of Items
Social Identity	Intention to belong to a certain site through interaction	Importance of my position in online community	2
		Degree of importance of online community in my life	
Interactivity	Relative importance of performance in company and colleagues	Exchange of knowledge or information through SNS	3
		Degree to which SNS is used in daily life	
		Smooth communication with the use of SNS	
Customer Trust in Company	Personal belief or Confidence in company	Trustworthiness of information provided by company	3
		Appropriateness of information provided by company	
		Acceptability of information provided by company	
Perceived Usefulness	Degree of awareness on usefulness by using SNS	Possibility of acquiring information through SNS	4
		Possibility of sharing information through SNS	
		Possibility of communicating with others through SNS	
		Possibility of interacting with other members through SNS	
Perceived Ease-to-Use	Degree of easiness to reach one's certain level of usefulness by using SNS	Handiness of using corporate-run SNS	3
		Convenience of understanding information provided by corporate-run SNS	
		Handiness of approaching corporate-run SNS	
Intention to Use SNS Sites	Intention to use corporate-run SNS sites	Intention to continuously use corporate SNS	3
		Interest in corporate SNS	
		corporate SNS	

Chapter 4. Expected Conclusion

A survey would be conducted on corporate Twitter users through mail, email, online, and etc. In order to identify the factors that affect users' intention to use certain corporate Twitter, it would be composed of more than 100 questionnaires in the survey. After completion of the survey, this study would verify the research hypotheses established with SPSS.

It would be supposed to the following conclusion of this study. First, the effects of perceived usefulness and perceived ease-to-use, main variables of TAM, would be identified. It would find that PU and PE have valid influence over usage intention of corporate SNS sites. Social identity,

interactivity and customer trust in corporation would be identified to have valid influence over perceived usefulness, and only interactivity was adopted as a factor that have valid influence over perceived ease-to-use. It would also expect to find that social identity has no influence over perceived ease-to-use.

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