

SNS에서 제휴마케팅 관점의 클릭의도에 영향을 주는 요인과 연대강도의 조절효과

Determinants of Click-Through Intention as Affiliate Marketing and the Moderating Effect of Tie Strength in SNS

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요 약

제휴마케팅으로 웹에서의 콘텐츠 제공자가 수익을 창출할 수 있게 되었다. 그러나 콘텐츠 제공자는 웹 사이트를 구축하여 일정 수준 이상의 고객을 끌어들이는데 어려움을 겪어왔다. 최근 SNS가 활성화 되면서 누구나 쉽게 콘텐츠 제공자가 될 수 있게 되었고, 자신의 SNS에 광고를 게재하고 제휴마케팅을 통해 수익을 창출하는 것이 용이하게 되었다. 본 연구에서는 트위터와 같은 마이크로블로그 기반 SNS에서 제휴마케팅에 영향을 주는 요인을 분석하였으며, 구성원들간의 연대관계가 이들 영향변수와 제휴마케팅 간에 조절역할을 하는지를 조사하였다. 실증분석에서는 제휴마케팅의 대응 변수로 클릭의도를 사용하였다. 실증분석을 통한 연구결과는 다음과 같다: 첫째, 마이크로블로그 기반 SNS의 보안 서비스, 커뮤니티 소통지원 서비스, 내비게이션 서비스, 콘텐츠 품질은 클릭의도에 긍정적 영향을 미친다. 둘째, 마이크로블로그 기반 SNS에서 구성원들 간의 연대(연결강도)는 콘텐츠 품질과 클릭의도 간의 관계에서 조절역할을 한다. 약한 연대 그룹일수록 콘텐츠 품질이 클릭의도에 긍정적 영향을 미친다. 끝으로 본 연구에서는 이들 연구결과가 주는 함의를 연구자와 실무자 관점에서 제시하였다.

키워드 : 제휴마케팅, 마이크로블로그 기반 SNS, 연대관계, 클릭의도, 조절효과

I. Introduction

For years, companies have always been worried about the effects of advertising. Sometimes, a large amount of money is spent on advertising, but leaves an unsatisfactory result. The appearance of affiliate marketing has helped many companies solve this problem. Affiliate marketing is an agreement between a merchant and content providers to promote the mer-

chant's products or services on their websites. Content provider, also referred to as an affiliate, usually places an online ad on his/her website. When visitors click it, they are redirected to the merchant's website and the affiliation is tracked by a cookie stored on the visitors' computers (Gallaughier *et al.*, 2001). Content providers get paid only if the visitors from their website execute a specific action (Chatterjee, 2002). This is a type of online advertising

where, generally speaking, most of the content providers have their own websites and post the affiliate programs on their websites. Content provider (a company, a team, or even an individual) need to master information technology for website building or maintenance. Sometimes, they may also need to use Search Engine Optimization (SEO) to improve the ranking of the website. Thus, there exists some technology barriers to do affiliate marketing.

However, the wide spread of the Social Network Service (SNS) has shed those technology barriers. An SNS provides users with an excellent platform to share and receive information and give marketers a great opportunity to disseminate content through numerous populations. Nowadays, if people want to become a content provider, they do not have to build a website anymore; they can post the advertisement (affiliate program) on an SNS, which allows anyone to become a content provider.

The effectiveness of advertisement distribution relies strongly on thoroughly understanding the targeted users' preference. However, some implicit personal information of users, particularly the new users, may not be always obtainable to the marketers (Ha, 2002). As users know more about their friends than marketers, the relationships between users become a natural medium and filter for message dissemination. Moreover, most people are willing to share their information with friends and are likely to be affected by the opinions of their friends (Kim and Srivastava, 2007; Lee *et al.*, 2006).

In 2010, e-Marketer reported that 90% of consumers rely on recommendations from people they trust. In reality, one of the most popular microblog-based SNS, Twitter, announced an innovative advertising model, called "Promoted Tweets", in April 2010. It makes tweets as advertisements, which are distinctive from both traditional keyword

based advertisements and recent social advertisements. In practice, the advertisers should disseminate advertising messages through information-sharing between people and increase the resonance so as to widen the coverage (spread of social advertisements) and keep the advertisement alive. Thus, a microblog-based SNS is a great way for online advertising, especially for affiliate marketing.

Compared with traditional online advertising, social advertising is a form of advertising that incorporates people as part of a social network and uses social relations and social influences between people to sell products or services (Wang *et al.*, 2009; Wen *et al.*, 2009). Social relationships and social interaction are powerful because they can act as trusted referrals and reinforce the fact that people influence people and have become the crucial components in social advertising (Bagherjeiran and Parekh, 2008). The relationship between the content provider and the potential customer largely influences click-through intention. Compared with the profile-based SNS, the microblog-based SNS is better for affiliate marketing because of high penetration rate as well as high post volume and frequency. This paper aims at finding out how the service characteristics of a microblog-based SNS (security, community drivenness, navigability) influence people's click-through intention; how the quality of content posted by a content provider influences people's click-through intention; how tie strength moderates service characteristics and content quality's influence on click-through intention.

II. Literature Review

2.1 Online Advertising and Affiliate Marketing

Online advertising is a form of promotion that

uses the Internet and World Wide Web for the expressed purpose of delivering marketing messages to attract customers (Meyers and Gerstman 2001). The issue of online advertising has aroused much academic interest and has been spotlighted for decades. Online advertising can usually be categorized into two types: 1) targeted advertising, which delivers advertisements to a recipient based on the user's preference profiles; and 2) social advertising, which delivers the advertisements to influential users determined by social relationship (Li and Chen, 2009). Targeted advertising also can be considered as a kind of application of recommender systems, which utilizes two main techniques: the content-based approach and the collaborative-based approach to discover users' personal preferences (Massa and Bhattacharjee, 2004). The content-based approach uses users' previous preference profiles (Albadvi and Shahbazi, 2009; Kwak *et al.*, 2010), while the collaborative based approach uses the general tastes of profiles from similar users (Yang and Dia, 2008; Kwak *et al.*, 2010). However, both filtering approaches rely heavily on subject user ratings, making it hard to recommend new items to users when there are no related comments or rating records (Ha, 2002).

Affiliate marketing is classified as a type of online advertising, where merchants share percentage of sales revenue generated by each customer, who arrived to the company's website via a content provider. Content provider, also referred to as an affiliate, usually places an online ad on his/her website (Gallaugh *et al.*, 2001). Chatterjee (2002) describes affiliate marketing as transaction oriented, without any commitment to joint future success or being exclusively restrictive. An affiliate program requires minimal effort and investment and may be terminated easily.

Affiliate marketing, can be divided into two

groups: one-to-one affiliate marketing and one-to-many affiliate marketing. In one-to-one programs, a merchant signs a contract with a chosen affiliate. The terms of the contract are negotiable and do not influence contracts with other affiliates. This type of affiliate program is used for big players in the market that can attract many new buyers to the merchant's website (Libai and Gerstner, 2003). When using one-to-many affiliate programs, the merchant sets the same conditions for all affiliates, who can trade, whether they join the program. A one-to-many program is usually used, when the merchant cooperates with many affiliates and it would be too costly to negotiate contract terms with all of them. Affiliate marketing enables better targeting of online advertising which improve their effectiveness. Actually, both parties (the merchant and the content provider) of affiliate marketing benefit from the program. Affiliate marketing gives content providers new opportunities for generating revenues and provides them with the chances to cooperate with a large number of merchants, to which they may not be able to have access otherwise (Duffy, 2004).

2.2 Microblog-based SNS

An SNS is defined 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, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site (Boyd and Ellison, 2008).

According to Wikipedia, a microblog-based SNS (also called microblogging) is a broadcast medium in the form of blogging. Twitter, Sina Weibo, Tencent Weibo are typical examples of the microblog-

based SNS. As with traditional blogging, microbloggers post topics ranging from the simple, such as “what I’m doing right now,” to the thematic, such as “sports cars.” Commercial microblogs also exist, to promote websites, services and/or products, and to promote collaboration within an organization. Some microblogging services offer features such as privacy settings, which allow users to control who can read their content or alternative ways of publishing entries besides the web-based interface. These may include text messaging, instant messaging, E-mail, digital audio or digital video (Wikipedia).

Compared with any other type of SNS (or social media), a microblog-based SNS serves more types of needs. Consumers use social media for many reasons including socially, entertainment, news and service. According to Nielsen Buzzmetrics’ Social Media User Study Report 2012, a microblog-based SNS serves all those four types of needs, which includes communicating with friends, sharing photo and videos, for fun, getting and sharing news, learning about products finding good restaurants, and for personal job. On the other hand, a profile-based SNS is mainly used for social purposes and for fun. Thus, the usage variety of microblog-based SNS creates a high degree of flexibility for marketers to create their desired format marketing campaign, and provides a creative “canvas.”

Nielsen Buzzmetrics’ Social Media User Study Report 2012 also analyzes user’s attitude toward personal information among three kinds of social media, microblog-based SNS, profile-based SNS, and location-based services. The profile-based SNS have more real name users which indicate a more real-life based social network, while microblog-based SNS have more anonymous users, where users are more prone to share more personal-related information. This indicates that marketers can encourage

users to share more of their personal experience on a microblog-based SNS as their identity is largely anonymous, meaning that it is more appropriate for affiliate marketing.

2.3 The DeLone and Mclean Model of IS Success

The primary purpose of the original DeLone and McLean paper was to synthesize the previous research involving IS success into a more coherent body of knowledge and to provide guidance to future researchers. Based on the communications research of Shannon and Weaver (1949) and the information “influence” theory of Mason (1978), as well as empirical management information systems (MIS) research studies, a comprehensive, multidimensional model of IS success was postulated. Shannon and Weaver (1949) defined the technical level of communications as the accuracy and efficiency of the communication system that produces information. The semantic level is how successful the information is in conveying the intended meaning. The effectiveness level is the effect of that the information has on the receiver. In the D&M IS Success Model, “systems quality” measures technical success; “information quality” measures semantic success; and “use, user satisfaction, individual impacts”, and “organizational impacts” measure effectiveness success (DeLone and Mclean, 1992). And in the ten-year update of IS success model, they proposed that service quality was also an important factor that influences IS success. Service quality is defined as the overall support delivered by the service provider, applies regardless of whether this support is delivered by the IS department, a new organizational unit, or outsourced to an Internet service provider (ISP). Assurance, empathy, and responsiveness were used to

measure service quality. Service quality is extremely important because poor user support will translate into lost customers (Delone and Mclean, 2003).

III. Research Model and Hypotheses

3.1 Research Model

Affiliate marketing using microblog-based SNS actually includes two types of context: one is in the SNS context and the other is in the e-commerce context. First, the potential customer sees the advertisement posted by a content provider and clicks through. This process happens in the SNS context and the dependent variable is the click-through intention. After the potential customer clicking-through, they see the information about some product or service and they'll decide to buy it or not. This process happens in the e-commerce context and the dependent variable is purchase intention. As there are many difficulties in measuring purchasing behavior and since this process happens in the e-commerce context but not in the SNS context, this paper chooses click-through intention as the surrogate of affiliate marketing and aim to find factors that influence click-through intention. Click-through intention is a widely adopted variable in online advertising. For example, Kim *et al.* (2012) use the click-through data to measure the effectiveness of online advertising in online marketplaces.

In a microblog-based SNS, a person is able to forward anyone's information and it's easier for users to follow trending topics. All types of SNS facilitate online, social interaction, yet they do not all offer the exact same services or have the same focus. Facebook is a typical example of the profile-based SNS. It allows users to create a profile where they

can post information about themselves. On this profile, users can post web links, pictures and videos of interest. All of these features coupled with the creation of applications, groups and fan pages make Facebook broadly popular for online socializing (Hughes *et al.*, 2012). While a microblog-based SNS such as Twitter focused more on the sharing of opinion and information (Kwak *et al.*, 2010). A microblog-based SNS allows users to update their account with short statements limited to a certain amount of characters. Other can freely 'follow' these "tweets." Unlike the profile-based SNS, a microblog-based SNS offers the opportunity to reinstate some of the anonymity previously sought in online communication. Users do not need to post information about themselves to find 'friends' and thus the site focuses less on 'who you are' and more on what you have to say (Huberman *et al.*, 2009). Thus, the microblog-based SNS is a prominent area of affiliate marketing.

Based on the Delone and Mclean's IS success model (1992, 2003), three factors influence system use: system quality, information quality, and service quality. In terms of affiliate marketing using a microblog-based SNS, the situation is quite similar. One important factor is the characteristics of the services provided by the microblog-based SNS. Whether the SNS can provide secure, efficient, and customized services are important for users. The SNS should also provide services which help users to find friends easily. The other important factor is the quality of the content posted by the affiliate (content provider). This is similar to information quality in the IS success model. The content shown to the users should be precise, believable, expressed in an interesting way, in an appropriate amount and most important, should be useful for the potential customers. Since customers do not like exaggerating ad-

vertising, the content should be precise and believable for the sake of a long-term relationship. Another important point is that the content should be interesting. People are usually curious about such kind of content, and interesting content can attract them to click through. One thing which also needs special attention is the amount of information included in the content. Too much information or posting too frequently will make others feel annoyed. The content should also be useful to the potential customer. Providing content related to chocolate to a person who hates candy is meaningless.

Due to the special situation in an SNS, tie strength is also taken into consideration. Tie strength shows the relationship between two peers in a network. Whether the tie between the content provider and the potential customer is strong will surely have a great influence. In the situation of strong tie, people may consider less about the service quality and content quality. Thus, the following model is proposed:

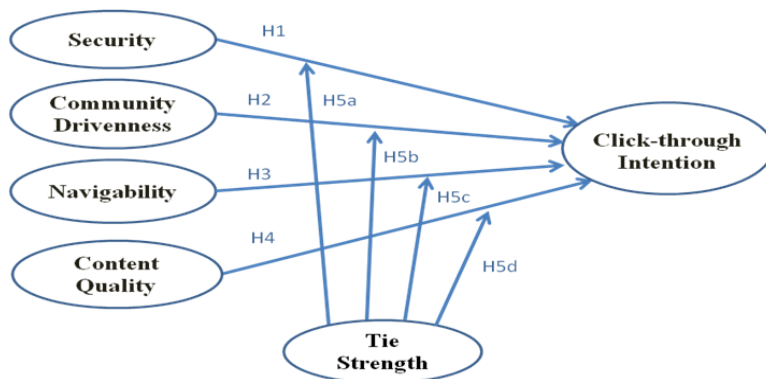
3.2 Research Hypotheses

3.2.1 Service Characteristics in SNS

When using an SNS to do affiliate marketing, the

first thing to consider is the service characteristics in SNS. Service characteristics are similar to service quality in the IS success model and service quality has been proved to be an important factor in information system use (Delone and Mclean, 2003). Researchers who have argued that service quality be added to the success model have applied and tested the 22-item SFRVQUAL measurement instrument from marketing (Kettinger and Lee, 1995; Pitt *et al.*, 1995) to an IS context. This instrument uses the dimensions of tangibles: reliability, responsiveness, assurance, and empathy to measure service quality (DeLone and McLean, 2003). Service characteristics are related to whether there are errors in the system, the ease of use, the response time and stability of the system, etc (DeLone and McLean 1992, 2003). Rivard *et al.* (1997) developed and tested an instrument that consists of 40 items that measure eight service characteristics: namely, reliability, portability, user friendliness, understandability, effectiveness, maintainability, economy, and verifiability.

In terms of microblog-based SNS, three aspects need to be considered - security, community drivenness and navigability. First, since affiliate marketing partially involves commercial activities, security needs to be taken into consideration. Security is de-



〈Figure 1〉 Research Model

defined as confidentiality of information, things that give or assure safety and guarantee. (Zhang *et al.*, 2000). Websites, especially SNS websites, gather personal information about their users for their own purposes and this creates a security concern (Yang *et al.*, 2005). The microblog-based SNS should have a strong security and privacy policy and should not use the users' personal data for other purposes. A strong security policy of websites and confidentiality of personal data of users enhance the reputation of the company as well as confidence of users. This in turn creates a positive perception of users towards the SNS websites (Ellahi and Bokhari, 2013). Second, since the SNS is used to communicate with other people and for sharing information or knowledge, community drivenness is quite important. The microblog-based SNS should offer facilities that enable users to connect with old friends easily, to discover new friends and to communicate with other members (Kim *et al.*, 2010). These characteristics of an SNS enable content providers to find their target customers easily. Furthermore, when an SNS provides such kind of service, users may be more willing to click the affiliate program posted on it. Third, since there exist millions of users involved in the microblog-based SNS, the system should be able to provide stable and fast service. If a social networking website does not design its navigation in an efficient and user-friendly manner, then its users may get frustrated (Ellahi and Bokhari, 2013) and this will negatively influence their click-through intention. Thus, the navigability of the microblog-based SNS is also an important aspect of system quality. As the platform to post the advertising information, service characteristics in SNS are surely crucial. Thus, we hypothesize that:

H1: Security of the microblog-based SNS will positively influence click-through intention.

H2: Community drivenness of the microblog-based SNS will positively influence click-through intention.

H3: Navigability of the microblog-based SNS will positively influence click-through intention.

3.2.2 Content Quality

Besides service characteristics in an SNS, content quality is another important factor that influences click-through intention. Content quality is similar to information quality in the IS success model. According to Yang and Dia (2008), information quality (IQ) can be categorized into four dimensions: intrinsic information quality, contextual information quality, representational information quality, and accessibility information quality. Intrinsic IQ implies that information has quality in its own right. Contextual IQ highlights the requirement that IQ must be considered within the context of the task at hand; it must be relevant, timely, complete, and appropriate in terms of amount in order to add value. Representational and accessibility IQ emphasize the importance of computer systems that store and provide access to information; that is, the system must present information in such a way that it is interpretable, easy to understand, easy to manipulate, and is represented concisely and consistently; also, the system must be accessible but secure.

Mohammad *et al.* (2008) summarized several dimension of information quality models and framework as followings: (1) Accuracy; (2) Consistency; (3) Security; (4) Timeliness; (5) Completeness; (6) Concise; (7) Reliability; (8) Accessibility; (9) Objectivity; (10) Relevancy; (11) Usability; (12) Understandability; (13) Amount of data; (14) Reputation; (15) Efficiency; and (16) Value-added.

Too many advertisements will surely make people feel annoyed. In traditional social media (for exam-

ple, TV) people have no choice but to watch the ads because they don't want to miss the TV program they like. However, things are totally different in an SNS. People have the right to decide whether to read the advertisement or not. If the potential customer doesn't like the advertisement, he/she will leave. Once a potential customer leaves (stop following), the content provider may lose him/her forever. The quality of the content is therefore crucial in affiliate marketing using microblog-based SNS. The amount, expression, and relevance of the content are factors which deserve special attention.

User preference classification is also an important issue in online marketing. Personalized service requires understanding customers' preferences to provide the right products to the right customers. By analyzing the users' preferences, we can better understand what kind of content is suitable to deliver and to provide relatively useful content to those potential customers. In the environment of microblog-based SNS, it's relatively easy to find users' preference because there are lots of tags. The more believable, precise, useful, and interesting the content is, the more people are willing to click through the advertisement. At the same time, the amount of information included in the content is also quite important since too much information may make people feel annoyed. Thus, we hypothesize that:

H4: Content quality will positively influence click-through intention.

3.2.3 Tie Strength

Some researchers measure the influential strength by analyzing the number of network links and users' relationships and interaction in the network to identify the influential nodes for social advertising (Li and Shiu, 2012). However, in terms of affiliate marketing in a microblog-based SNS, tie strength is

more appropriate to apply than the number of ties. That's due to the reason that number of ties cannot reflect the relationship of two peers in a network. The notion of tie-strength is an important concept in social network analysis. The strength of a tie is a quantifiable property that characterizes the link between two nodes.

Granovetter (1973) suggested that "the strength of a tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding) and the reciprocal services which characterize the tie." However, people have long argued that this is not a precise definition of tie strength, but just a description of its characteristics. Wang *et al.* (2012) define tie strength with peers as the degree to which a person is willing to maintain some relationship with peers through some social media. The relationship may be very close, such as dear friends, or very casual, such as with acquaintances or strangers. Tie strength offers significant explanatory power regarding the influence of word of mouth communications.

While Granovetter (1973) left the precise definition of tie strength to future work, he did characterize two types of ties, strong and weak. Strong ties are the people you really trust, people whose social circles tightly overlap with your own. Often, they are also the people most like you. The young, the highly educated, and the metropolitan tend to have diverse networks of strong ties. Weak ties, conversely, are merely acquaintances, often providing access to novel information, or information not circulating in the closely knit network of strong ties (Gilbert and Karahalios, 2009).

Indicators are actual components of tie-strength (closeness, duration and frequency, breadth of topics and mutual confiding), whereas contextual contingencies (neighborhood, affiliation, similar socio-economic status, workplace and occupation prestige) are

predictors. Predictors are related to tie-strength but not components of it.

In Wang *et al.* (2012)'s study of social media peer communication and its impacts on purchase intention, four questions were applied when measuring tie-strength: How likely should you share personal confidences with your peers? How likely would you spend some free time socializing with your peers? How likely would you perform a big favor for your peers? How likely would your peers perform a large favor for you?

Petróczy *et al.* (2007) discussed how to measure tie-strength in virtual social networks and they proposed a summary of tie-strength components: frequency, intimacy/closeness, voluntary investment in the tie, advice given/received, desire for companionship, multiple social context indicator (breadth of topics), long period of time (duration), reciprocity, provide support/emotional intensity, mutual confiding (trust), and sociability.

Certainly, if a user knows or follows a content provider for a long time, or the two peers interact with each other frequently, or they have common interests, their relationship will exert some influence. Thus, we hypothesize that:

H5a: Tie strength will play a moderating role in the relationship between security and click-through intention.

H5b: Tie strength will play a moderating role in the relationship between community drivenness and click-through intention.

H5c: Tie strength will play a moderating role in the relationship between navigability and click-through intention.

H5d: Tie strength will play a moderating role in the relationship between content quality and click-through intention.

IV. Research Design

4.1 Operational Definition and Questionnaire Design

The measures used to operationalize the constructs included in the investigated models are mainly adapted from previous studies with modifications to fit the target contexts. The operational definition of each construct is given out in <Table 1>, which also provides the questionnaire items used to measure each construct.

<Table 1> Operational Definition and Measurement of the Construct

Variable	Operational Definition	Code	Items	References
Security (SE)	The degree to which the microblog-based SNS gives or assures safety and guarantee.	SE1	When I use a certain microblog-based SNS, whether it has a strong privacy policy is important for me.	DeLone and McLean (1992, 2003), Kim <i>et al.</i> (2010), Ellahi and Bokhari (2013)
		SE2	When I use a certain microblog-based SNS, whether it has a strong security policy is important for me.	
		SE3	When I use a certain microblog-based SNS, whether it use my personal data for other purpose is important for me.	
		SE4	When I use a certain microblog-based SNS, whether it use cookies reasonably is important for me.	

Community Drivenness (CD)	The degree to which the microblog-based SNS is able to offer facilities to connect with old friends, to discover new friends and to communicate with friends and other members.	CD1	When I use a certain microblog-based SNS, whether it offers opportunity to discover new friends is important for me.	Bauer <i>et al.</i> (2004), Kim <i>et al.</i> (2010), Ellahi and Bokhari (2013)
		CD2	When I use a certain microblog-based SNS, whether it offers opportunity to reconnect with old friends that I lost contact with is important for me.	
		CD3	When I use a certain microblog-based SNS, whether it can make possible easy reach of friends is important for me.	
		CD4	When I use a certain microblog-based SNS, whether it has lots of real name user is important for me.	
Navigability (NA)	The degree to which the microblog-based SNS assures the act of moving from page to page.	NA1	When I use a certain microblog-based SNS, whether it loads quickly is important to me.	Van der Merwe and Bekker (2003), Ellahi and Bokhari (2013)
		NA2	When I use a certain microblog-based SNS, whether it is easy to go back and forth while browsing is important to me.	
		NA3	When I use a certain microblog-based SNS, whether it has lots of customized application is important to me.	
		NA4	When I use a certain microblog-based SNS, whether it has a quick searching function is important to me.	
Content Quality (CQ)	A user's perception of the extent to which the content fits use, is believable, helpful, practicable, clear and interesting.	CQ1	The content posted by the content provider is expressed in a simple way.	DeLone and McLean (1992, 2003), Wang (2008), Mohammad <i>et al.</i> (2008)
		CQ2	The content posted by the content provider is expressed in a precise way.	
		CQ3	The content posted by the content provider is expressed in an interesting way.	
		CQ4	The content posted by the content provider is in appropriate amount.	
		CQ5	The content posted by the content provider is helpful.	
		CQ6	The content posted by the content provider is reliable.	
Tie Strength (TS)	The degree to which a person is willing to maintain some relationship with peers through the microblog-based SNS.	TS1	Whether the content provider and I have frequent interactions (e.g. replying to each others' tweets) is important to me. (Frequency)	Petróczi <i>et al.</i> (2007); Wang <i>et al.</i> (2012)
		TS2	Whether I have followed (known) the content provider for a long period of time is important to me. (Duration)	
		TS3	Whether the content provider and I have a very close relationship (e.g. offline good friends) is important to me. (closeness)	
		TS4	Whether I always receive advice from the content provider is important to me.	
		TS5	Whether the content provider and I have similar interests is important to me.	

Click through Intention (CI)	The subjective probability for a user to visit a website through clicking the advertisement post on microblog-based SNS.	CI1	I'm predicted to click the content provider's advertisement on a microblog-based SNS.	Gao (2011), Kim <i>et al.</i> (2012); Kwahk and Ge (2012)
		CI1	It's possible for me to click the content provider's advertisement posted on a microblog-based SNS.	
		CI3	I'm willing to click the content provider's advertisement posted on a microblog-based SNS.	
		CI4	It's likely for me to click the content provider's advertisement posted on a microblog-based SNS.	

4.2 Sampling Design and Data Collection

The questionnaire was designed based on the measurements shown in <Table 1>. Survey was conducted in China from March 2013 to May 2013. Samples were selected from individuals who are using microblog-based SNS in China. We obtained 209 usable responses out of 243 through on-line survey, e-mail, instant message and face-to-face interviews. The data of the questionnaire was analyzed using SPSS 18.0 and AMOS 18.0. The measurements of each variable are shown in <Table 1> and each measurement is rated on a 5-point Likert-scale from 1 (strongly disagree) to 5 (strongly agree).

V. Data Analysis and Hypothesis Testing

5.1 Demographic Characteristics

The demographic characteristics of those 209 answers are shown in <Table 2>. From the table, we can see that there are 43.5% of males and 56.5% of females. 80.4% of the respondents are at their 20s, which may be a limitation of this study. Among these respondents, 58.4% have used a microblog-based SNS for 1~2 years and 29.2% have used it for 3~

4 years. 57.9% of them use a microblog-based SNS every day.

<Table 2> Demographic Characteristics

		Frequency	Percentage
Gender	Male	91	43.5%
	Female	118	56.5%
Age	10s	6	2.9%
	20s	168	80.4%
	30s	32	15.3%
	40s	3	1.4%
SNS Using Length	Within 1 year	22	10.5%
	1~2 years	122	58.4%
	3~4 years	61	29.2%
	5 years and more	4	1.9%
SNS Using Frequency	Everyday	121	57.9%
	1~2 days/week	49	23.4%
	3~5 days/week	30	14.4%
	Every week	4	1.9%
	Every few weeks	3	1.4%
	Less often	2	1.0%
Total Number: 209			

5.2 Model Fitness, Reliability and Validity

Six factors with eigenvalue over 1.0 are extracted from exploratory factor analysis by using SPSS soft-

ware as shown in <Table 3>. Cronbach's α is estimated to obtain a measure of reliability of a set of question items (Henson, 2001). A widely advocated level of adequacy for the coefficient alpha has been at least 0.70 (Cortina, 1993). From <Table 3>, we can see Cronbach's α are all higher than 0.8, indicating a good internal consistency.

Confirmatory factor analysis (CFA) was conducted to test the measurement model for the constructs. To show a reasonable fit to the model, we used Amos 18.0 to test a number of criteria-including Chi square/degrees of freedom, Goodness-of-fit Index (GFI),

Adjusted Goodness-of-fit Index (AGFI), Normed Fit Index (NFI), Comparative Fit Index (CFI), Root Mean Square Residual (RMR), and Root Mean Square of Approximation (RMSEA). <Table 4> shows the result of model fit. Most of them meet the requirement of the recommended value with two exceptions -GFI is 0.875 and 0.876. Although smaller than the threshold value-0.9, the result is acceptable.

<Table 5> shows the result of convergent validity. Fornell and Larcker (1981) consider a construct to display convergent validity if the composite reliability (CR) of the construct is larger than 0.7 and

<Table 3> Exploratory Factor Analysis and Internal Consistency

Variable	Item	Factor Loading						Eigenvalue	Cronbach's α
Security (SE)	SE1	0.196	0.185	0.827	0.092	0.148	0.119	2.086	0.899
	SE2	0.147	0.104	0.790	0.024	0.271	0.208		
	SE3	0.189	0.226	0.798	0.156	0.213	0.092		
	SE4	0.177	0.192	0.777	0.127	0.169	0.052		
Community Drivenness (CD)	CD1	0.147	0.063	-0.007	0.822	0.211	0.113	1.858	0.856
	CD2	0.202	0.072	0.107	0.846	0.092	0.083		
	CD3	0.142	0.039	0.100	0.816	0.082	0.102		
	CD4	0.284	-0.009	0.157	0.659	0.202	0.039		
Navigability (NA)	NA1	0.188	0.177	0.339	0.009	0.710	0.156	1.229	0.867
	NA2	0.064	0.230	0.231	0.254	0.736	0.126		
	NA3	0.226	0.176	0.100	0.241	0.778	0.077		
	NA4	0.137	0.182	0.238	0.194	0.753	0.090		
Content Quality (CQ)	CQ1	0.726	0.192	0.049	0.180	0.130	0.109	9.751	0.877
	CQ2	0.726	0.121	0.160	0.217	0.087	0.186		
	CQ3	0.718	0.240	0.074	0.225	-0.004	0.029		
	CQ4	0.676	0.123	0.163	0.174	0.198	0.183		
	CQ5	0.809	-0.010	0.151	0.095	0.050	0.181		
	CQ6	0.732	0.024	0.205	0.046	0.214	0.086		
Tie Strength (TS)	TS1	0.164	0.619	0.228	0.046	0.205	0.255	2.734	0.857
	TS2	0.181	0.732	0.137	0.074	0.116	0.207		
	TS3	0.067	0.764	0.081	0.063	0.157	0.275		
	TS4	0.040	0.755	0.156	0.050	0.231	0.154		
	TS5	0.128	0.770	0.143	-0.026	0.053	0.062		
Click through Intention (CI)	CI1	0.215	0.198	0.116	0.124	0.089	0.780	1.117	0.842
	CI2	0.175	0.154	0.153	0.001	0.127	0.796		
	CI3	0.183	0.383	0.161	0.236	0.137	0.639		
	CI4	0.143	0.407	0.052	0.129	0.080	0.669		

〈Table 4〉 Model Fit Indices for Confirmatory Factor Analysis

Fit Indices		Model Indices	Recommended Value
Absolute Fit Indices	X2/DF	1.367	≤ 3.000
	GFI	0.875	≥ 0.900
	AGFI	0.847	≥ 0.800
	PGFI	0.715	≥ 0.600
	CFI	0.963	≥ 0.900
	NFI	0.876	≥ 0.900
	RMR	0.032	≤ 0.050
	RMSEA	0.042	≤ 0.080

〈Table 5〉 Convergent Validity

Variable	Item	Std Estimate	SE	CR	AVE
Security (SE)	SE1	0.856	0.084	0.978	0.692
	SE2	0.817	0.086		
	SE3	0.869	0.079		
	SE4	0.783	-		
Community Drivenness (CD)	CD1	0.809	0.119	0.966	0.611
	CD2	0.863	0.109		
	CD3	0.756	0.113		
	CD4	0.687	-		
Navigability (NA)	NA1	0.764	0.083	0.976	0.621
	NA2	0.814	0.080		
	NA3	0.782	0.081		
	NA4	0.792	-		
Content Quality (CQ)	CQ1	0.737	-	0.973	0.547
	CQ2	0.780	0.100		
	CQ3	0.700	0.112		
	CQ4	0.738	0.107		
	CQ5	0.767	0.108		
	CQ6	0.713	0.117		
Tie Strength (TS)	TS1	0.715	0.131	0.964	0.5488
	TS2	0.752	0.121		
	TS3	0.797	0.127		
	TS4	0.768	0.131		
	TS5	0.665	-		
Click-through Intention (CI)	CI1	0.757	0.086	0.972	0.574
	CI2	0.703	0.094		
	CI3	0.816	0.084		
	CI4	0.750	-		

the average variance extracted (AVE) exceed 0.5 (that is, when variance explained by the construct is greater than measurement error). From <Table 5>, we can see that all of the CR values are higher than 0.7 and all the AVE values are higher than 0.5. Thus, the convergent validity is assured.

<Table 6> shows the result of discriminant validity. Discriminant validity analysis refers to testing statistically whether two constructs differ (as opposed to testing convergent validity by measuring internal consistency within one construct) (Moutinho and Hutcheson, 2011). Fornell and Larcker (1981) proved that constructs are different if the AVE for one's constructs is greater than their shared variance. That is, the square root of the AVE for a given construct should be greater than the absolute value of the standardized correlation of the given construct with any other construct in the analysis. According to <Table 5>, the correlation indicators are all less than the square root of AVE, assuring the discriminant validity.

5.3 Hypothesis Test

<Table 7> shows the result of regression analysis of three models-the control model, the model including moderating variable, and the moderating effect model. In the control model (Model 1), all the independent variables positively influence click-thro-

ugh intention. Among them, content quality shows the largest effect (0.351^{***}), followed by security (0.267^{**}), navigability (0.261^{***}), and community drivenness (0.185^{**}). In the model including moderating variable (Model 2), all of the independent variables also show positive influence on click-through intention. Tie strength has the largest influence on click-through intention (0.498^{***}). Content quality also shows an obvious positive influence on click-through intention (0.309^{***}). Among the three aspects of service quality, security has a relatively big influence on click-through intention (0.197^{***}), followed by community drivenness (0.182^{**}) and navigability (0.177^{**}).

In the moderating effect model (Model 3), all the independent variables have positive influence on click-through intention. However, in terms of the moderating effect, only tie strength×content quality has an influence on click-through intention (-0.144^{*}). Other independent variables moderated by tie strength do not affect click-through intention. That may due to the reason that content quality can be controlled by the content provider, it is more human-related compared with service quality. Thus, the relationship between people (tie strength) can moderate content quality's influence on click-through intention. Since the relationship between people is quite important in China, it can largely influence those human-related factors. In contrast, service characteristics are more

<Table 6> Discriminant Validity

	SE	CD	NA	CQ	TS	CI
SE	0.832					
CD	0.340	0.781				
NA	0.639	0.496	0.788			
CQ	0.506	0.517	0.490	0.740		
TS	0.518	0.252	0.564	0.420	0.741	
CI	0.476	0.398	0.499	0.547	0.722	0.758

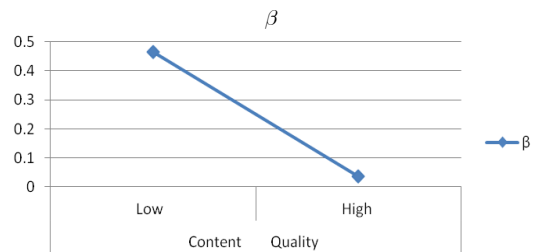
<Table 7> Regression Analysis

Independent Variables	Control Model (Model 1)			Model including moderating variable (Model 2)			Moderating effect model (Model 3)		
	Standardized Coefficients	t	Sig.	Standardized Coefficients	t	Sig.	Standardized Coefficients	t	Sig.
SE	0.267	4.541	.000***	.197	3.767	.000***	.152	2.772	.006**
CD	0.185	3.144	.002**	.182	3.487	.001**	.130	2.317	.022*
NA	0.261	4.444	.000***	.177	3.393	.001**	.145	2.712	.007**
CQ	0.351	5.969	.000***	.309	5.911	.000***	.231	3.859	.000***
TS				.498	9.537	.000***	.445	7.909	.000***
SE×TS							-.044	-.758	.449
CD×TS							-.072	-1.200	.232
NA×TS							.023	.401	.689
CQ×TS							-.144	-2.247	.026*
R2(Adj. R ²) F(Sig.)	0.296(0.282) 21.472(0.000)			0.446(0.433) 32.751(0.000)			0.467(0.443) 19.381(0.000)		

related to technical factors which cannot be controlled by the content provider. The content provider can only choose a certain microblog-based SNS to post the content.

<Figure 2> show the moderating effect of tie strength on the relationship between content quality and click-through Intention. When tie strength between the content provider and the potential customer is low, content quality shows significant positive influence (slope = 0.464, t = 5.591, p < 0.001) on click-through intention. For the low tie-strength group, content quality plays the major role in influencing click-through intention. Thus, content providers need to pay attention to the quality of the content they post on SNS. But when tie strength is high, content quality's influence on click-through intention is positive and insignificant (slope = 0.036, t = 0.345, n.s.). That's to say, when a strong tie exists between the content provider and the potential customer, the content quality's influence on click-through intention become so small since tie strength plays the major

role. As a result, improving tie strength is crucial when using SNS to do affiliate marketing.



<Figure 2> Moderating Influence of Tie Strength on the Relationship between Content Quality and Click-through Intention

VI. Implications and Conclusion

Nowadays, if people want to become a content provider, they do not have to build a website anymore; they can post the advertisement on SNS. SNS

makes it possible for everyone to become a content provider. The wide spread use of SNS has shed those technology barriers. An SNS provides users with an excellent platform to share and receive information and gives marketers a great opportunity to disseminate information through numerous populations. This study examined how service characteristics in SNS and content quality influenced click-through intention and the moderating role of tie strength.

6.1 Academic Implications

The following implications may provide some guidelines for academics studying SNS and affiliate marketing. First, there is no previous study about using SNS to do affiliate marketing. This paper, mainly built on the IS success model, proved that service characteristics of the microblog-based SNS and the quality of the content post by the content provider influenced click-through intention. Service characteristics in SNS measure technical level factors. Content quality is similar to the concept of information quality in IS success model and it measures the semantic level factors. The result showed that content quality played a much more important role in affecting click-through intention than service characteristics.

Second, as SNS is different from other information systems, service characteristics must be measured differently. Previous studies measured factors such as assurance, empathy, responsiveness, reliability, and tangibles, etc (Parasuraman and Zeithaml, 1988; DeLone and McLean, 2003). This paper took three aspects into consideration: security, community drivenness and navigability. This can be a good guideline for further researches. Security is the degree to which the microblog-based SNS gives or assures safety and guarantee. Community drivenness

measures whether the microblog-based SNS is able to offer facilities to connect with friends and other members. Navigability is the degree to which the microblog-based SNS assures the act of moving around from page to page. These three perspectives all had a positive influence on click-through intention.

Third, instead of number of ties, this paper chose tie strength as the moderating factor. Tie strength was proved to be extremely important in affiliate marketing using SNS and it played a moderating role in the relationship between content quality and click-through intention. When a strong tie existed between the content provider and the potential customer, tie strength played the main role. The influence of security, community drivenness, navigability and content quality were all smaller compared with the influence of tie strength. But for the weak tie group, content quality had significant influence on click-through intention.

6.2 Practical Implications

The following implications may provide some guidelines for practitioners. First, content providers should carefully choose a proper SNS to post the advertisement since service characteristics in SNS have positive influence on click-through intention. A microblog-based SNS which provides good services not only ensures the safety and efficiency, but also makes it easier for the content provider to find the target customers. As anyone can forward another person's information on a microblog-based SNS, the spread speed can be very fast. Choosing a microblog-based SNS with large amount of active users may improve the probability of click through.

Second, content providers should try their best to improve the quality of the content since it is a crucial factor that influences click-through intention.

They should express the content in a simple and precise way to ensure that users can read and understand the advertisement within several seconds. Proper amount of information is also quite important. People will feel annoyed if several advertisements are post in a row. Thus, choosing the right time to post the advertisement is also important. Interesting content can attract people's attention, so attaching some interesting pictures to the content may attract some users to click through. The content provider should always post reliable content and never exaggerate.

Third, since tie strength has significant influence on click-through intention. Content providers should build strong tie with those potential customers. Content providers can also try to follow some people who have similar interests and these people may then follow back. Frequent interactions and giving advice to others from time to time are good choices. It's easier for content provider to build strong tie in such kind of situation. For the weak tie group, content providers should focus on improving content quality. Content providers should share products that they know well with people who have similar interest.

Finally, since security, community drivenness and navigability are all considered as important factors by users, SNS providers such as Twitter, and Sina Weibo should try their best to provide services that assure these perspectives. Assuring the security and privacy of the users is the most important thing. Since more and more people are using SNS every day and SNS generate a tremendous amount of valuable social data, SNS providers should deal with this issue carefully. An SNS provider should never sell users' information to any third party. Improving service and offering personalized service based on customer information can bring benefits to users.

Although customers appreciate personalized service, they may sometimes suspect that their personal information is being collected. This situation has been referred to as the "personalization-privacy paradox" (Awad and Krishnan, 2006; Lee and Cranage, 2011). An SNS provider should provide different level of personalized service for users with different security concern. Giving users the freedom to choose the level of personalization they want. At the same time, SNS providers should enable users to move from page to page easily because good navigability is the basic requirement of service characteristics in SNS. As community drivenness is also an important factor, SNS providers should provide services which enable users to find new friends and old friends easily. Providing tags to make it possible for users to find people with similar interests or organizing some activities for interests groups can be good choices.

6.3 Limitations and Future Research

One limitation of this study may due the data collection-most of the respondents are young people (20s and 30s) and most of them are females. We only examined three aspects of service characteristics of microblog-based SNS in our study, there may exist other factors. Future study can try to examine other aspects of SNS service characteristics. This paper only studied the effect of tie strength. But in the context of microblog-based SNS, number of ties may also play an important role. Thus for future study, researchers can try to examine how number of ties influence click-through intention.

References

Albadvi, A. and M. Shahbazi, "A hybrid recommen-

- dation technique based on product category attributes”, *Expert Systems with Applications*, Vol.36, No.9, 2009, pp. 11480-11488.
- Awad, N. F. and M. S. Krishnan, “The Personalization Privacy Paradox: An Empirical Evaluation of Information Transparency and the Willingness to Be Profiled Online for Personalization”, *MIS Quarterly*, Vol.30, No.1, 2006, pp. 13-28.
- Bagherjeiran, A. and R. Parekh, “Combining behavioral and social network data for on-line advertising”, *Proceedings of the 2008 IEEE International Conference on Data Mining Workshops*, Pisa, Italy, 2008, pp. 837-846.
- Bauer, H. H., M. Hammerschmidt, and T. Falk, “Measuring the quality of E-banking portals”, *International Journal of Bank Marketing*, Vol.23, No.2, 2004, pp. 153-175.
- Boyd, D. M. and N. B. Ellison, “Social Network Sites: definition, history, and scholarship”, *Journal of Computer-Mediated Communication*, Vol.13, 2008, pp. 210-230.
- Chatterjee, P., “Interfirm alliances in online retailing”, *Journal of Business Research*, Vol.57, 2002, pp. 714-723.
- Cortina, J. M., “What is coefficient alpha? An examination of theory and applications”, *Journal of Applied Psychology and Aging*, Vol.78, No.1, 1993, pp. 98-104.
- DeLone, W. H. and E. R. McLean, “Information systems success: The quest for the dependent variable”, *Information Systems Research*, Vol.3, No.1, 1992, pp. 60-95.
- DeLone, W. H. and E. R. McLean, “The DeLone and McLean model of information system success: A ten-year update”, *Journal of Management Information Systems*, Vol.19, No.4, 2003, pp. 9-30.
- Duffy, D. L., “Affiliate marketing and its impact on e-commerce”, *Journal of Consumer Marketing*, Vol.22, No.3, 2004, pp. 161-163.
- Ellahi, A. and R. H. Bokhari, “Key quality factors affecting users’ perception of social networking websites”, *Journal of Retailing and Consumer Services*, Vol.20, No.1, 2013, pp. 120-129.
- Fornell, C. and F. D. Larcker, “Evaluating structural equation models with unobservable variables and measurement error”, *Journal of Marketing Research*, Vol.18, No.1, pp. 39-50.
- Gallaughar, J. M., P. Auger, and A. Barnir, “Revenue streams and digital content providers: an empirical investigation”, *Information and Management*, Vol. 38, No.7, 2001, pp. 473-485.
- Gao, F., “A Study of Online Purchase Intention: Based on the Perspective of Customer Trust”, 978-1-4244-6581-1/11, 2011, IEEE.
- Gilbert, E. and K. Karahalios, “Predicting tie strength with social media”, CHI, Boston, Massachusetts, USA, 2009.
- Granovetter, M. S., “The Strength of Weak Ties”, *American Journal of Sociology*, Vol.78, 1973, pp. 1360-1380.
- Ha, S., “Helping online customers decide through Web personalization”, *IEEE Intelligent Systems*, Vol.17, No.6, 2002, pp. 34-43.
- Henson, R., “Understanding Internal Consistency Reliability Estimates: A Conceptual Primer on Coefficient Alpha”, *Measurement and Evaluation in Counseling and Development*, Vol.34, No.1, 2001, pp. 177-189.
- Huberman, B. A., D. M. Romero, and F. Wu, “Social networks that matter: Twitter under the microscope”, *First Monday*, Vol.14, No.1, 2009.
- Hughes, D. J., M. Rowe, M. Batey, and A. Lee, “A tale of two sites: Twitter vs. Facebook and the personality predictors of social media usage”, *Computers in Human Behavior*, Vol.28, 2012, pp. 561-569.

- Kettinger, W. J. and C. C. Lee, "Perceived service quality and user satisfaction with the information services function", *Decision Sciences*, Vol.25, No.5/6, 1995, pp. 737-765.
- Kwak, H., C. Lee, H. Park, and S. Moon, "What is Twitter, a social network or a news media?", *Proceedings of the 19th International World Wide Web (WWW) Conference*, Raleigh, North Carolina, USA, 2010, pp. 591-600.
- Kwahk, K. Y. and X. Ge, "The Effects of Social Media on E-commerce: A Perspective of Social Impact Theory", *Proceedings of 45th Hawaii International Conference on System Sciences*, 2012.
- Kim, C. H., S. S. Park, K. S. Kwon, and W. J. Chang, "An empirical test to measure the effectiveness of online advertising in online marketplaces using a hierarchical Bayes model", *Expert Systems with Applications*, Vol.39, 2012, pp. 117-128.
- Kim, W., O. Jeong, and S. Lee, "On social web sites", *Information Systems*, Vol.35, No.2, 2010, pp. 215-236.
- Kim, Y. and J. Srivastava, "Impact of social influence in e-commerce decision making", *Proceedings of the 9th International Conference on Electronic Commerce*, ACM, New York, 2007, pp. 293-302.
- Lee, M., C. Cheung, C. Sia, and K. Lim, "How positive informational social influence affects consumers' decision of Internet shopping", *Proceedings of the 39th Annual Hawaii International Conference on System Sciences*, IEEE, Washington DC, 2006, pp. 115-124.
- Lee, C. H. and D. A. Cranage, "Personalization-privacy paradox: The effects of personalization and privacy assurance on customer responses to travel Web sites", *Tourism Management*, Vol.32, 2011, pp. 987-994.
- Li, Y. M. and C. W. Chen, "A synthetical approach for blog recommendation: combining trust, social relation, and semantic analysis", *Expert Systems with Applications*, Vol.36, No.3, 2009, pp. 6536-6547.
- Li, Y. M. and Y. L. Shiu, "A diffusion mechanism for social advertising over microblogs", *Decision Support System*, Vol.54, No.1, 2012, pp. 9-22.
- Libai, B. and E. Gerstner, "Setting referral fees in affiliate marketing", *Journal of Service Research*, Vol.5, No.4, 2003, pp. 303-315.
- Mason, R. O., "Measuring information output: A communication systems approach", *Information and Management*, Vol.1, No.5, 1978, pp. 219-234.
- Massa, P. and B. Bhattacharjee, "Using trust in recommender systems: an experimental analysis", *iTrust*, 2004, pp. 221-235.
- Meyers, H. and R. Gerstman, *Branding @ the Digital Age*, Palgrave, New York, 2001.
- Mohammad, J. K., A. R. Ramli, H. Ibrahim, and F. Azimzadeh, "Formulating Priority of Information Quality Criteria on the Blog", *World Applied Sciences Journal*, Vol.4, No.4, 2008, pp. 586-593.
- Moutinho, L. and G. D. Hutcheson, "Validity", *The Sage Dictionary of Quantitative Management Research*, SAGE Publications Ltd., 2011, pp. 327-330.
- Parasuraman, A. and V. A. Zeithaml, "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality", *Journal of Retailing*, Vol.64, No.1, 1988, pp. 12-40.
- Petróczi, A., T. Nepusz, and F. Bazso, "Measuring tie-strength in virtual social networks", *Connections*, Vol.27, No.2, 2007, pp. 39-52.
- Pitt, L. F., R. T. Watson, and C. B. Kavan, "Service quality: A measure of information systems effectiveness", *MIS Quarterly*, Vol.19, No.2, 1995, pp. 173-188.
- Rivard, S., G. Poirier, L. Raymond, and F. Bergeron, "Development of a measure to assess the quality

- of user-developed applications”, *The DATA BASE for Advances in Information Systems*, Vol.28. No.3, 1997, pp. 44-58.
- Shannon, C. E. and W. Weaver, “The Mathematical Theory of Communication”, Urbana, IL: University of Illinois Press, 1949.
- Van der Merwe, R. and J. Bekker, “A framework and methodology for evaluating E-commerce web sites”, *Internet Research: Electronic Networking Applications and Policy*, Vol.13, No.5, 2003, pp. 330-341.
- Wang, K., E. T. G. Wang, and C. K. Fam, “Influence of Web advertising strategies, consumer goal-directedness, and consumer involvement on Web advertising effectiveness”, *International Journal of Electronic Commerce*, Vol.13, No.4, 2009, pp. 67-96.
- Wang, X., C. L. Yu, and Y. J. Wei, “Social Media Peer Communication and Impacts on Purchase Intentions: A Consumer Socialization Framework”, *Journal of Interactive Marketing*, Vol.26, 2012, pp. 198-208.
- Wang, Y. S., “Assessing e-commerce systems success: A respecification and validation of the DeLone and McLean model of IS success”, *Information Systems Journal*, Vol.18, No.5, 2008, pp. 529-557.
- Wang, Y. S. and Y. W. Liao, “Assessing e-Government systems success: A validation of the DeLone and McLean model of information systems success”, *Government Information Quarterly*, Vol.25, 2008, pp. 717-733.
- Wen, C., B. C. Y. Tan, and K. T. T. Chang, “Advertising effectiveness on social network sites: an investigation of tie strength, endorser expertise and product type on consumer purchase intention”, *Proceedings of the International Conference on Information Systems (ICIS)*, Phoenix, Arizona, United States, 2009, pp. 15-18.
- Yang, W. S. and J. B. Dia, “Discovering cohesive subgroups from social networks for targeted advertising”, *Expert Systems with Applications*, Vol.34, No.3, 2008, pp. 2029-2038.
- Yang, Z., S. Cai, Z. Zhou, and N. Zhou, “Development and validation of an instrument to measure user perceived service quality of information presenting web portals”, *Information and Management*, Vol. 42, 2005, pp. 575-589.
- Zhang, P., G. Von Dran, P. Blake, and V. Pipithsuksunt, “A Comparison of the Most Important Website Features in Different Domains: An Empirical Study of User Perceptions”, *Proceedings of the Sixth Americas Conference on Information Systems*, 2000. pp. 1367-1372.
- Who are social media users in China? Social media user study report, Nielsen Buzzmetrics, 2012.
- Wikipedia: <http://en.wikipedia.org/wiki/Microblogging>.

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Determinants of Click-Through Intention as Affiliate Marketing and the Moderating Effect of Tie Strength in SNS

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Abstract

Affiliate marketing is classified as a type of online advertising, where merchants share a percentage of sales revenue generated by each customer, who visited the company's website via a content provider. Content provider, referred to as an affiliate, usually places an online advertisement at its website. For the past few years, there have been a lot of companies or individuals who participate in affiliate marketing. Generally speaking, most of them have websites and post the merchant's ads on their own websites. However, building and maintaining websites have some technology requirements.

The widespread use of Social Network Service (SNS), especially microblog-based SNS such as Twitter and Sina Weibo, provides opportunities for individuals who want to be content providers of affiliate marketing. Since information spreads quickly on microblog-based SNS and the easy in targeting customers, it is both an effective and an efficient tool to do affiliate marketing. The relationship between a content provider and the potential customer, which is referred as "tie strength", is quite an important issue in such situation. This paper proved that service characteristics of the microblog-based SNS (security, community drivenness and navigability) and content quality all had positive influence on click-through intention, while tie strength played a moderating role. For the group with strong tie, tie strength is crucial in influencing click-through intention. While for the weak tie group, content quality was very important. Finally, we proposed some implications for both academics and practitioners.

Keywords: *Affiliate Marketing, Tie Strength, Click-through Intention, Microblog-based SNS, Moderating Effect*

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현재 동국대학교(경주캠퍼스) 경영·관광대학 경영학부 교수로 재직 중이다. 부산대학교에서 경영학박사 학위를 취득하였다. 현재 한국경영정보학회 부회장을 맡고 있고, 한국정보시스템학회장과 편집위원장을 역임하였다. 주요 관심분야는 전자상거래, 비즈니스 생태계, e-비즈니스 전략, 시맨틱 웹, 지식경영, 집단지성과 소셜웹 등이다. 경영학연구, 경영정보학연구, 한국경영과학회지, 정보시스템연구, Journal of Human-Computer Studies, Journal of Sustainable Tourism, DSS, Information Systems Management, International Journal of Industrial Engineering, Expert Systems with Applications, Journal of Computer Information Systems 등에 다수의 논문을 게재하였다.

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