Web-based Social Network Sites for Working People in China: An Empirical Study

A Dissertation Submitted to

Auckland University of Technology

In Partial Fulfillment of the Requirements for the Degree

of

Master of Business (MBus)

Michael Gao

2011

School of Business

1

Table of Contents

Attestation of Authorship

"I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning."

List of Abbreviations

API - Application Programming Interfaces

ICT - The information communications technology

IS - Information Systems

PEOU - Perceived ease of use

PR - Perceived Risk

PU - Perceived usefulness

SCT - Social Cognitive Theory

SET - Social Exchange Theory

SNS - WWW-based Social Network Services

TAM - Technology Acceptance Model

UI - Use Intension

UTAUT - Unified Theory of Acceptance and Use of Technology

XML - eXtensible Markup Language

Abstract

The rapid development of Internet technology has revolutionized the traditional methods of communication within the global socio-cultural context. Among all Internet developing countries, China, the nation with one of the world's largest economy and markets, is benefiting from the fastest rate of growth of Internet users. China is also experiencing the enormous transformation in all fields of communication led by the advancement of Internet technology. Social Network Services (SNS), as a newly developed virtual network system, plays an increasingly important part as the online platform for users from different areas of life to communicate and socialize within a virtual community. SNS provides new e-commerce opportunities for both multinational and domestic businesses. Most of these opportunities come from the wealth earned from direct and indirect advertisement as well as other forms of commercial promotions. However, as SNS has only attracts academic attentions recently, the number of previous relevant studies on this topic is too few to satiate the needs of SNS service providers and the academic researchers. Still, my research will need to rely on the previous studies but to include studies in similar directions, like those papers conducted on relevant e-commerce topic. After I have examined a number of selected referenced studies, I have concluded my research approach targets on the variables of perceived usefulness, perceived ease of usefulness, perceived risk, trust, familiarity, centrality, and national culture and their relationship with SNS user's use intention. The research is expected to examine and analyze the influences that alter the degree of use intention in order to

provide a clarified explanation for future academics and SNS marketers. By doing so, the expectation of the result of my research is to provide a much clarified and summarized outlines for future businesses that interested in the investment and development of SNS related services in the complex Chinese market. By referring to future business, the result of this research is expected to assist the new foreign businesses who have insufficient information and experience to operate in the unfamiliar Chinese markets where the user intention of SNS does not match some of the Western reports. However, the domestic and experienced foreign businesses could also find usefulness out of the results.

Introduction

The Information Communications Technology (ICT) industry has witnessed the unexpected development and surprising prosperity of WWW-based Social Network Services (SNS) in the recent decade. To introduce SNS in the most simple and straightforward way, according to the definition given by Parameswaran and Whinston (2007), Social Network Services is referred as "the new application and services that facilitate collective action and social interaction online with rich exchange of multimedia information and evolution of aggregate knowledge". The central focus of SNS is the nurturing interpersonal connections and relationships in a virtual environment such as the internet. This focus differentiates SNS from other digital platforms like weblogs and wikis (e.g. Blogbus and Baidu). This is because SNS is based on the highly realistic virtual simulation of the interpersonal communication in the reality. Nonetheless, some sociologist academics also argue that SNS has moved a step ahead. Accordingly SNS does not only simulate realistic communication, but may also transform the traditional interpersonal communication by construct an entirely new way of practicing interpersonal relationship. (Dann & Dann, 2011) This transformation is still hard to define by its limits, but this study can learn some ideas from the following example. In 2010, a female user had updated a personal status which consists of personal offence to her boss on Facebook.com. If this situation only happened in the traditional realistic communication, the audience could only be few of her friends. Unfortunately her boss was also able to access to her updated messages on

Facebook.com and he had decided to dismiss her from the company. This black humor liked story is a very small representation of the SNS led transformation in interpersonal relationship, but the difference it has caused has huge impacts.

Simulation, as well as the complication, of the realistic interpersonal relationships is unique characteristic of SNS, which is supported by a variety of content distribution methods including XML-enabled data push and streaming videos. Another SNS's special feature that supports its focus of nurturing interpersonal relationships is that it enables external computer software architects to modify Application Programming Interfaces (API) for customization of online application development. The key utilities provided to the SNS users by these features are diversification and customization. This facility which enhances the freedom of personal choices is so called the plug-ins and gadgets. (e.g., Happy Farm in Renren.com. Renren.com is a Chinese version of Facebook.com that has claimed it to be the leading SNS provider in China. Happy Farm is one of the entertaining services it has developed. Basically it is a virtual game which takes place in a virtual farm where the users come from the Renren.com registered database). Nonetheless, it also means that part of the cost of software development is shared with the public. (Similar to Happy Farm, there are a variety of other SNS enabled applications and services which are not worried to be developed and maintained by the SNS providers, but to be managed by public designers and smaller businesses that relies on the overall SNS platform). The shifting of the financial burden of software development means a reduction in the overall cost for the SNS providers.

SNS has been developed to its recently matured state in the U.S. and soon its ideology

rapidly grew across borders. Its significance on global network has created the business

opportunity for the growth of other corresponding services which could increase the

value chain of the interpersonal relationships and connections on the platforms of SNS.

This is what we have witnessed from the statistic records in China. In 2009, the overall

Chinese SNS market value is estimated to be 60 million U.S. dollars. This estimation is

supported by the fact that the number of SNS user registrations is counted as 124

million in total. (iResearch, 2009). However, this is only just the beginning, as the

Chinese SNS market will keep on expanding. This is proven by the evidences given by

China Internet Network Information Centre, which shows the market value has a 24%

annual growth rate over the first six months of 2009.

One important aspect that makes the Chinese SNS market attractive to the advertisers is

the significant percentage of the younger generation in its users' composition. This

study makes a comparison with the composition of young users within the age group

ranging from 13 to 34 in the U.S. market. In the U.S. market, there is merely 35% SNS

users qualified in this demographic group, whereas in China the number of SNS users

that fits the age requirement is 73% of the total user population (Boutin, 2009). The

fresh blood in the overall consumer population represents a large potential of further

growth in future. Consumers from this age group are more educated, value sensitive,

and individualized, more importantly, the familiarity and easiness in their attitude

towards new technology makes them better adapters than their parents. The success of Apple in China is the best example of this theory. (Liu, 2009)

With such a vast existing market and a big potential space to expand, it is crucial for the SNS providers as well as the national industry administration to gain better knowledge of the consumer needs of SNS users from an academic level. Thus it becomes the main focus for my analysis. The analysis will explore different areas and variables that will affect the choice of a SNS user; variables such as centrality, familiarity, trust. These data will be collected and explained throughout the dissertation to allow businesses and individuals to gain a better understanding of what exactly are SNS users searching for, and how would SNS assist them.

It is important for us as researchers to understand the fundamental differences that lie within the cultural contexts for both Chinese and other societies, especially the U.S. society. The difference is noticeable, as the cultural context primarily dominates the behaviors of potential SNS users who are considered as the customers within a certain domestic market that is defined by a unique value system (Chen et al., 2008). This study will apply the definition given by Chen et al. (2008) to explain this cultural dominance which influences people's behavior. The complexity of different cultural impacts is summarized to a broader term named as National Culture. This is a combination of systems which form the critical components of the SNS environment; however due to its complexity level, if it often difficult to grasp a complete understanding.. This is

because the cultural environment is essentially intangible and often harder to understand, the underlying cultural behaviour and norm. It is also common for researchers to ignore the cultural component of a research if they are not a native.

This research is not solely focusing on how SNS users react to different SNS sites, based on trust and familiarity, and other variables, but it will also focus on the cultural aspect which will make the results differ between countries (Howard & Jones, 2004), for example it will be less effective to place an US made advertisement in the China market, and expecting to receive the same results.

Unlike other forms of e-commerce and online advertising, most SNS that are currently setup are available to the public for free. This might allow users in the workforce to be able to market themselves within the industry, as opposed to teenagers and adults using it mainly for the purpose of sharing their personal life. This not only creates a virtual community for SNS users, but might also have the ability to better match professionals with their jobs. With China being such a big country in size and population, it can be difficult for individuals to seek the job that will maximize their potential. Hence this research is focused on finding out whether SNS can better assist a country with a large population to better match jobs with the right person; and how else SNS can benefit the country, and what variables will drive the growth of SNS.

Background of SNS Development in China

Compare with the U.S., China is considered as a late adopter of the Internet and those associated technologies. The rapid growth of Internet technologies in the U.S. has led to the overwhelming development in areas like e-commerce, online socialization, as well as data communications. As the enormous economic development happened in China, this study expects that the "late comer effect" and the "catch up strategies" would enable the speed of development of Chinese Internet services to accelerate (Boutin, 2009). The late comer effect means that the Chinese business and government are benefiting from the experiences summarized by former pioneers. Catch up strategies are strategies which are built under the reference to the success of the former businesses. During the second quarter in 2009, it is recorded that over 338 million mainland Chinese residents have accessibility to Internet service, excluding residents from Hong Kong and Macau (China Internet Network Information Centre, 2009). Also, according to Internet World Stats (2009), out of this large number of Internet customers, 48 million of them are using different kinds of broadband connections. Despite the fact that the number of Internet customers is expanding, the mobile phone service has also contributed a group of users to the overall number of SNS users. However, with the large number of domestic population as the denominator, the Internet, broadband and mobile phone services are all experiencing a low penetration rate in China. The Internet penetration rate is 17.8%, broadband penetration rate is 3.7%, and the mobile phone penetration rate is 42.2%. Compare this statistics with South Korea; the same

penetration rate calculation is recorded as 68.2%, 37.4%, and 90.4%. For the U.S., the penetration rates are 81.8%, 21.9%, and 82.1%. This figures told us that only a very small proportion of the Chinese residents have the potential to become the SNS users, compared to other countries that have similar economy development. At the surface, this low penetrating rate can be explained by reasons like urbanized saturation of population, as well as the differentiation in both urban and rural classes. However, in long run, the unmatched population and penetration rate means a great potential of growth in future market and the size of total consumer groups.

As I have introduced before, the "late comer effect" leads the Chinese Internet advancement to develop a set of special catch-up strategies. For Chinese SNS industry, one of these strategies is the "close imitator" of other successful models. This is one of the most important differences between the U.S. and Chinese SNS businesses. The model is provided by the leading SNS business in the industry, such as Facebook.com and MySpace.com models. One of the examples of the "close imitator" would be Renren.com who is one of the Chinese SNS businesses that have adapted the experience and marketing strategies from the success of the Facebook.com. Renren.com used to be named as Xiaonei.com which stands for "on campus" in Chinese. This name has greatly limited its targeting market on a college-based social network portal. The "close imitator" strategy has helped Renren.com to become the leading SNS business in its sector, however hindered from its name. The strategy of renaming from Xiaonei to Renren served as the business's new approach for the advancement to a higher level.

Renren in Chinese means "everybody", which indicated that the business has expanded the boarder of its target market from college-based students to a greater majority in the general public. For foreign SNS businesses, MySpace has gone an opposite way of setting up its global development strategy. Unlike Renren's "close intimating" strategy, MySpace has launched a strategy that would help the business to fit the Chinese socio-cultural background. It has introduced the Chinese mock-up of MySpace.com in 2006 with its name transliterated into "JuYou.com". The Chinese name for MySpace is translated to be "where friends meeting each other". Other than these similarities, the difference in China's network infrastructure and the complexity within socio-economic system creates greater uncertainty in the overall SNS industry and market. One of the uncertainties is the homogeneity on the individual client base. This uncertainty is caused by the current marketing strategies of the Chinese SNS providers, whereas the target market sets on a group level instead of individual level. This uncertainty means that the personal customization is very much constrained. As a result of this uncertainty, the business's pursuit of niche markets is also constrained, which means there is a potential of losing customers (Chadwick, 2001).

Despite the problem of imitating the original idea and creativities from U.S. counterparts, there are other major differences which exist between the U.S. and Chinese SNS markets. As I have mentioned previously, on the one hand the youthfulness of the Chinese SNS market is attractive to advertisers, but on the other hand it also represents the diversification in user's demographic is constrained. Unlike

the U.S. SNS market where users have their profiles widely diversified in terms of socio-economic background (Boutin, 2009). The credit systems in both markets are also different in terms of infrastructure development and system maturity. The U.S. SNS market is beneficial from its well established online transaction platforms and a real name credit system, which serves as an important support for various financial activities to take place on these e-platforms with trust and security of privacy. However, the Chinese Internet network lacks a mature and reliable credit system and it fails to provide sufficient protection of privacy. The current financial services providers do not offer free of charge transactions and transacting online still put doubts and uncertainty into consumers' minds (Chadwick, 2001).. Another outstanding problem from the current Chinese credit system is the real name identity penetration. This problem should be a strange topic to the Western businesses, but in China, it is crucial as the government presses high oppression on Internet regulation. The freedom of anonymous speech and comments are limited in politically sensitive topics as the users need to provide their personal identity. In the U.S. market, the real name identity systems with reliable personal information are readily available and maturely developed, which allows other businesses to stay close to their interested target group for more precise services. The Chinese market lacks the real name identity system, which has the potential of creating disorder or even chaos in users profile management. Once again, this difficult is generated specifically due to the government oppression on the degree on individual freedom within the online community. This legislation discourages a number of consumers, either from social minority group like homosexuals or those who hold anti

mainstream political belief, from participating online.

The starting up environment for Chinese SNS providers is relatively tough, as the Internet legislation constrains certain freedom of individual expression and business operations (Lu & Heng, 2009). Also, the slow-starting up and the scarcity of technologies is another major difficulty. However, the Chinese SNS businesses focus on providing the services of online socializing products with a great variety of customization. This strategy has brought them the initial success, by offering a variety of products; it has allowed users to have more choices, and therefore more willing to engage with the introduction of new technology. Take Chinese SNS market leading business Renren.com and Kaixin.com as examples, this study can prove their achievements by noticing the fact that both of them has together contributed 40% of the total market share in China (iResearch, 2009). The iResearch Report in the same year also established their findings of the users' opinions of these two SNS networks. Renren.com and Kaixin.com users acknowledge the richness and the usefulness of information and facilities they receive from these SNS providers. Another reason of customer satisfaction is that the users find the overall virtual community attractive for the subjects in discussion that catch general interests. The positive customer satisfaction is the main encouragement for potential SNS users to choose Renren.com and Kaixin.com. Even though both SNS providers are competing with each other in the same industry, they differentiate their marketing strategies individually by targeting on the contexts of online socializing products they offer. Kaixin.com is specializing in

developing online games and a variety of gadgets like online rating for uploaded photo galleries. These games and gadgets are admired by Kaixin.com's users as they connect themselves with other friends closely via these games and gadgets. Enlightened by a different marketing approach, Renren.com has become the industrial leader in terms of social network migration. The advantage which supported Renren.com to overcome the challenge of Kaixin.com is the much clarified and defined marketing target. Unlike Kaixin.com where the boundary of targeting consumer group is blurring, Renren.com has cooperated with almost all tertiary and secondary education providers from both domestic and foreign environments. The students from these education providers will be more likely to register to Renren.com where they are able to find their real life social groups to join in.

From the discussion above on the development of the Chinese SNS industry and its associated market, this study now turns to the theoretical approach of the assumptions about technology usage within the overall background of socio-technical environments. The IS research is believed to necessarily reflect the response of the emerging trends. However the lack of previous research on the SNS topic in China has always caused difficulties for my   study (Hargittai, 2007). According to Paraneswarab and Whinston's statement, social science usually takes the longitudinal research to examine the relationships between social factors and user involvement (2007). The problem with previous longitudinal researches is that the topic of social behaviors in online community is missing. As the lack of reliable academic resources, I decide to construct

a socio-technical framework with extended efforts for my study.

In the field of IS researches, one of the most popular topics is called technology adoption, or technology acceptance, in the IS discipline. Although there are always new research directions that are continuously announced and created, my research aims only at the topic of technology adoption. To begin with, this study shall first look at the central facility of SNS network, which is providing communicational channels for information exchanging and sharing. These essential communicational channels are the key for the facilitation of various social network connections on virtual platform. These communicational channels are closely correlated with the respective service contexts consisted of targeting customer population (e.g., Renren.com to the secondary and tertiary students vs. Kaixin.com to the general public with a wider age distribution). For my research, these communicational service channels offer us the directions to study our aim of socio-technical factors.

Furthermore, the world-wide nature of the Internet creates arguments about the robustness of trust effects within different socio-cultural contexts. Trust is one of the most critical factors in addition to perceived usefulness and perceived ease of use that enable the general operation of e-commerce/e-service (Mukherjee and Nath, 2007). As this study has discussed above, the case of a female SNS user who had unfortunately lost her job in reality due to her personal comment to her employer on Facebook.com, we should bear in mind that the traditional interpersonal communication has been

transformed by SNS and related technology. As a result of this, the factor trust has also been affected. The increasing degree of loss of privacy and other personal information is causing problems in virtual interpersonal communication. This is why this study takes the factor of trust into account and this will be further discussed in the following paragraph. The examination of the combination of impacts of these enablers within a well developed ICT service arise insightful theoretical conclusions and meaningful marketing implications in ICT use.

However, the development of Chinese Internet privacy protection policies and associated social awareness are not up to speed with the rapid growth of technology of the Chinese Internet service industry today. The number of corresponding issues from ethnic and technical aspects rises with the hyper speed growth during last decade. The same problem also occurs within the global Internet development. For example, the leading company of the online search engine, Google, is found to be maleficent after the exposure of its irresponsible pilferage of its user's private data. This case has happened in Australia where Google Australia has been charged because the business has been snooping into the diaries of Australians as it has incidentally collected digital privacy information from personal Wi-Fi networks during their working process, which is taking pictures for street view in several years ago (Curtis, 2010).

In China, there has been a number of reports which show that the employees from the e-service industry, have been intentionally stealing and spreading their client's private

information for commercial usage, after the employees have resigned from their IT related company. Some e-service providers even sell their customer's private information, which are obtained from registration database, to third party business corporations without any sort of consent from the owner of such information (Cheung, 2009). Cyber hunting, is a new category of internet crime which is usually conducted by the account theft in public internet environment, it has become much more frequent and inevitable. This study shall now clarify the basic meaning of the term privacy, it has been defined as the right of every individual that they could retain certain freedom of personal action to a certain degree. Undoubtedly there are many other academic conceptualizations (Warren &Brandeis, 1890). This simple understanding of privacy emphasizes that any person, groups, or entities should not interrupt other party's interests on private solitude (McCloskey, 1980). Privacy is also being recognized by a growing number of customers to be a basic right, or a fundamental utility, of consumption (Goodwin, 1991).

Unfortunately, the fact that lack of government legislation protection, lack of social awareness towards this sensitive problem and lack of effective private information controlling process, have made SNS customers impossible to obtain a desirable low degree of perceived risk on e-service. This unfortunate situation is caused due to the slowness in both of the legislative and social reaction to the fast transformation in interpersonal communication led by SNS technology. It happened in every Internet developing country, and it has worsened in developing countries like China where the

infrastructure was not as mature as other developed Western countries. This relatively high degree of perceived risk exists within the current Chinese Internet environment, which also strongly affects the SNS providers by causing uncertainty and corresponding results, such as damages caused on brand reputation and word of mouth effect. However, if we take a positive view towards this problem, we will notice that more and more attention had been given to privacy protection in the literature as well as the marketers, governments and the general public (Buchholz & Rosenthal, 2002; Charters, 2002; Hoy & Phelps, 2003).

For SNS users at beginning stage before they build up the use intention, they often rely on a subjective and qualitative measure to evaluate the degree of perceived risk (Mukherjee & Nath, 2007). This measure is an intuitive judgment which could be based on the factors such as their previous experiences, the level of involvement, and SNS providers' creditability. Also, they perceived registration information to be irrelevant to their identity in real life. If the perceived risk on private information leaking is evaluated at a high degree, then it would be very likely to decrease the trust of users on SNS providers. The negative correlation between the perceived risk and environmental uncertainty is one of the other factors that SNS users may experience. When the general environmental uncertainty becomes crucial, it will potentially cause consumers to feel uncertain towards associated risks like stealing of personal information in public area such as the internet cafe. The failure of losing an acceptable security standard level of user registration process would also certainly damage users' trust. As the frequency of

users signing into the registered SNS account outside with open-to-public broadband services (i.e. by using Wi-Fi or 3Gmobile, instead of using personal computer) is getting higher, the percentage of exposure of personal information is also increasing as the customers could depose their data in the public sphere which could provide opportunities for cyber hunting thefts to steal these data from these less secured situations. This problem occurred around the world, but the situation in China somehow made it worse, due to the ineffective legislative protection and management, as well as the general social concern. The lack concern of the protection individual rights is a special cultural related factor. This will be further discussed in the later paragraph which deals with the cultural context theory.

It appears to be a new challenge for SNS providers to develop account protection mechanism in order to ensure their customers' personal information is secured under various environmental circumstances. The final goal of developing such mechanisms is to build up the customer's trust as well as adding value to the brand awareness and reputation. In fact, most of the SNS providers, especially the former businesses, have already developed such mechanisms. However, the SNS providers in China should catch up the development of such mechanisms. Previously a number of privacy conflicts had taken place between the customers and their SNS providers.

The onus is on SNS providers to ensure that the perceived risk level assumed by SNS users is at a minimum, where they have to ensure that effective privacy protection

policies are in place and implemented. Furthermore, SNS providers have to ensure that their company and their employees are aware of ethical practices, where it is forbidden to leak clients' personal information to outside parties. It is also crucial for SNS providers to understand that there is a negative correlation between perceived risk and SNS user trust; therefore it is necessary to lower the perceived risk for the end users of SNS.

Literature review & Hypothesis development

The internet has provided many individuals and businesses with ease to complete their everyday task, whether they are important tasks such as banking, or entertaining tasks such as Facebook. The internet has allowed businesses and individuals to unite, and create a virtual community, where individuals can create another identity, and adopt another set of behaviors and motivation. The virtual community can be compared to our real world, where it is filled with complexity and individuals with different motives; therefore it is often difficult to study the behavioral patterns of individuals online (Howard & Jones, 2004).

The understanding of people's virtual behavior is basically associated with the personality of virtual citizens, the motivation of behavior and the reasons of decisions. However the categorization of these virtual activities is too broad to provide a precise and accurate direction of studies. This is the fact that makes our understanding of behavioral patterns difficult (Howard & Jones, 2004). To solve the problem of a blurred

categorization, this study should focus on researching the Chinese SNS customer's e-socializing activities within a meaningful context. Hence, our goal of assisting the future investors and SNS businesses could be more effective. There are at least two reasons, which ensure this study has to place the focus on such hypothesis. The first reason is that the current Chinese virtual population has a well-educated background and this makes their adaption of new technological phenomenon much easier. 65% of the current Chinese SNS users are aged between 18 to 26 years old. This younger generation consists of the major representatives of the regular Chinese SNS users, the familiarity of new technology they received from education providers essentially help them to dominate the virtual community (iResearch, 2009). The second reason is that the Chinese society is oriented on collectivism and kinship. This social value system suggests that Chinese SNS users would have a greater possibility to behave or act in a collective way when compared to more individualistic Western cultures (Hofstede, 2001). What this study is suggesting is not to make simplistic assumption that Chinese are better at working in groups than those Westerners. According to Hofstede's study on the cultural dimensions, it only means that Chinese people are strongly influenced by historical and cultural impacts. And the result of this impact is that the Chinese society tends to be defined as more collective than individualistic. h

In my research, the use of SNS in China is considered to be a socio-technical phenomenon. A lot of work has been done in social sciences to explain the importance of the social networking for social good (e.g., social capital theory) and the Technology

Acceptance Model, or TAM. Furthermore, there have been a series of empirical and qualitative studies focusing the correlations between societal factors and information systems in different study domains, mostly diffusion and adoption issues. The diffusion and adoption issues of information technology consist of most of these interests. However, there are some constrains that has limited the extension of research into this technology. The first constrain is that the growth of the SNS artifact in China is too rapid and makes many previous academic studies out of date. The second constrain is the enormous number of Chinese SNS population which makes categorization of SNS use difficult.

Despite these constrains, several associated factors have caught my attention, therefore eight hypothesis are made to make up a new model.

Centrality: A Critical Social Capital of SNS

Lin (2001) has established a definition for the term of social capital; it is the "resources embedded in a social structure that are accessed and/or mobilized in purposive action". The contemporary academic research on social capital has extended its focus from a small size collective (e.g., team) interests to a greater scale community at a public dimension. The mechanism which maintains and achieves both individual and collective interests is constituted by the combined influence between individuals and social groups. Social capital theory's dimensions of network centrality, trust, and social norms are the keys to explain the motivation of driving participation for people's virtual behavior.

There are different understandings about the perceptions of what is the core concept of social capital. There are a number of scholars who set their focus on the individual dimension when conceptualizing social capital, while others pay their attention to the goodness produced and accumulated on a collective level. The latter approach of collectivism will be adapted in my research to conceptualize social capital existing within the social relationships in terms of SNS network. Coleman's (1988) argued that "just as physical and human capital facilitates productive activity, social capital does as well" is the idea I would like to adopt in my research. This idea of social capital entirely embraces the philosophy of relationship management study and use it to lead the behaviors that focus on producing and accumulating collective interests, which could be social, psychological, emotional and economical (Lin, 2001).

According to Nahapiet and Ghoshal (1988), social capital has been conceptualized into three components, namely structural, cognitive, and relational dimensions. Their conceptualization is based on the argument that the meaningful exchange and combination of information and knowledge would be facilitated when three criteria are met. The three criteria include the presence of social connections between individuals (e.g., a structural dimension); understanding and acceptance of knowledge (i.e., a cognitive dimension); and individuals are encouraged to participate in these interactions by strong positive inter-personal relationships as the pushing factor (i.e., a relational dimension) (Nahapiet and Ghoshal, 1988).

Burt (1992) also believed that collective activities are better to be predicted by structural capital. Networks can be centralized and created by individual with the presence of stable direct linkages. The centrality a person possesses is positively proportional to the number of linkages the person has. That is, the greater the number of ties individual has, the greater the centrality this person possesses. To SNS network, centrality can be represented by a variety of accounts. These accounts include the number of friends registered within an individual's friend lists, the SNS user's social ranking in the network, the number of posts updated and responses received by the SNS user and are generated on a regular basis, and the value added-service subscription. Accordingly, centrality is defined as the level to which a person is involved with his/her group within the virtual network. The centrality increases while the SNS user become more active in the engagement within his or her virtual group. In reality, once a new SNS user registered his or her account to a certain SNS provider, his starting centrality is considerably low because of his unawareness to other users. While he spends more personal time on upgrading his profile, posts, and friend list, his engagement of virtual behavior and the involvement of online activities tend to increase, so does his centrality. According to my description, my first hypothesis is stated to be:

Hypothesis 1 (H1): SNS user's intention will be positively affected by centrality, where the more attention or linkage an individual receives through their SNS network, the more involved they will be.

Technology Acceptance

As this study has mentioned above, there are very few numbers of previous research in the field of SNS study on usage and adoption. The scarcity of relevant academic reference makes my research difficult to make reliable comparison. As a result of this, this study will focus on the e-business literature because of the common features it shares with SNS. The reason that I believe that related e-business literature are able to provide insightful references to this study is that e-business shares some of the basic characteristics with SNS. In another word, SNS can be seen as a special composition of e-business as a whole. For example, the concern of privacy protection worries users of both SNS and other e-business like online banking. Therefore I could apply some of the studies on e-business and to modify them for the purpose of my research. There are two objectives of reviewing academic studies on e-business. The first objective is that the e-business literature consists of the contemporary information accumulated to understand and examine the trend of the behavior of user acceptance. The next objective is, by comparing these theoretical contributions, I as a researcher can compare their features in common and/or to differentiate the identification of the latent constructs that serve as antecedents to SNS use intention.

The technology acceptance research begins a long period before the existence of the information revolution but most of the theoretical results are still applicable to my examination on newly established technologies at different levels. A number of previous

researches on e-business literature have been constructed at the area of analyzing businesses and organizations. Xu et al, (2009) uses the example of the adopting Internet banking and other online financial activities done by enterprise to represent this notion. Some of the studies have been constructed centrally at the national-wide level of analysis. Boyer-Wright and Kottemann (2009) use national e-readiness adopted by some countries as an example. However, my research focuses on another level which is different to these two levels of analysis. This study will be concentrated on the analysis of individual-level of technology acceptance, rather than solely focusing on one component of what the internet can provide, this study is focused on how individuals accept the concept of internet technology as a whole.

There is a number of previous researches with different analyzing approach to indicate the relationship between the perceived usefulness (PU) which is essentially determining the pattern of users' behavior. The central contribution comes from Davis et al, (1989) and Venkatesh and Bala (2008). The dependent variable in Technology Acceptance Model is the Use Intention (UI). Use Intention as the dependent variable is affected by other latent variables, i.e. perceived usefulness (PU) and the perceived ease of use (PEOU).(Guo et, 2010) To determine the usefulness of SNS, users will assess the level of community and interpersonal relationships that the SNS has created. The report given by iResearch (2009) proves this argument to be consistent. The report shows the first two reasons to explain why people decide to socialize in virtual network. One of these two reasons says that "seeking for useful information" motivates people's decision.

Gefen et al, (2003b) in their previous research adds to this notion with the statement which shows that "PU refers to the performance of any generic task in non-organizational settings". This statement is especially helpful for my research as the SNS in China is mainly used by people outside of the organizational settings. Accordingly, I ensure that the Technology Acceptance Model with its assumed relationship between perceived usefulness and user's intention is reasonably applicable to my analysis. The term of perceived usefulness should therefore be defined as what benefits will a potential SNS user assume they will obtain if they register to a SNS, and how useful is the SNS in assisting them to manage personal relationships within a certain virtual group. My next hypothesis therefore will be described as the following:

H2: SNS user's intention will be directly proportional to perceived usefulness, where the more useful information that the user can obtain, will encourage them to use SNS.

Similar to perceived usefulness, perceived ease of use (PEOU) is defined as "the degree to which a person believes that using a particular system would be free from effort" (Davis, et al., 1989, p. 985). Venkatesh and Bala (2008) find that PEOU captures the effect of cognitive instrumental processes on PU, while the empirical test from their study shows a positive relationship exists between these two dependent variables, PEOU and PU. Furthermore, one construct is believed for being able to moderate such a relationship.. This means that the more experience a user receives, the more information

they obtain, this would subsequently decrease the level of system complexity. Experience is a factor in the relationships about perceived usefulness too. Interestingly, once the users become very confident with the operation of the system after building up numerous amount of experience, the influence to the prediction of user's intention from perceived ease of usefulness is relatively less meaningful (Venkatesh and Bala, 2008). The reason for this alteration of perceived ease of usefulness is that most of the customers do not have sufficient knowledge in IT background. Therefore they tend to rely on the experience and familiarity of use, instead of analyzing the technology in depth. For my research I have decided to make an assumption that my sample population will be expected to consist mainly of repeated users with enough experience. Therefore the moderating influence of experience will be excluded from my focus of analysis in my model. However, I still include the perceived ease of use in my model because its relevance in previous academic studies. I have mentioned above, the correlation between the perceived ease of use and user's intention might be weakened due to long run contribution from experience and familiarity, but as the previous e-business studies do not provide clear conclusion on the exact degree of weakening, so I decided to examine the correlation in my research again. The definition of perceived ease of use will be the percentage to which a SNS user recognizes that using a SNS will be free from effort. Therefore, my third hypothesis will be that:

H3: Perceived Ease of Use (PEOU) will positively affect Perceived Usefulness (PU).

Familiarity and Trust

Zucker (1986) defines trust as a construct that consists of subjective probability with which customers believe that their personal information and tracks of individual behavior is kept with well monitored privacy and the safety in online financial transactions. Trust is the critical component that strongly affects the reputation and future growth for e-commerce. Trust itself is a dependent variable so it is also influenced by other latent variables. Gefen et al. (2003a) suggest that the central explanation that a large proportion of potential online transaction users being discouraged from engaging in services like online shopping, is mainly because there is a fundamental lack of trust with online transactions. The requirement of customer to submit private information like credit card and other personal data is not accepted by those customers who doubt the corresponding security. Previous researches have already pave the way for us that the basic formation of online purchasing intention is a function of a user's perception of the e-commerce technology (e.g. website interface) and their trust in e-commerce providers. If I express this relationship in a straightforward way, then the user intentions are a function of perceived usefulness, perceived ease of use, and trust.

The overall user's potential intention for participating with SNS is influenced by trust, which is consisted of the perceived risks as well as the results of the assumed user's behavior. Our contemporary Internet network is experiencing a continuous social complexity and social uncertainty, concerning how others behave in virtual interaction

contribute to an ongoing continuum where trust determines what people expect from the situation, from both social and business standpoints (Geffen et al., 2003b). A useful theoretical perspective on the role of trust in social and transactional relationships is Social Exchange Theory (SET) (Kelley and Thibaut, 1978). SET aims to explain people's motivation of behavior that occurs without explicit binding contracts or legal protections. Some research implies that e-commerce is to some extent free from such bindings (e.g., Gefen et al., 2003a). SNS are considering that the traded assets are mostly made up of personal, non-business information.

As this study has mentioned in the above explanations, SNS and e-commerce have a great number of similarities, yet they are defined by their own special features. Findings from research in SET and trust in e-commerce suggest that trust is no less important in SNS than in e-commerce. Therefore, familiarity, a knowledge-based antecedent of trust (McKnight et al., 1998; Gefen et al., 2003b), is included in the research model. This study defines familiarity as the degree to which an individual is aware of the SNS concept and knowledgeable about SNS use.

Luhmann (1979) suggests that as individuals obtain greater understanding of their surroundings, the level of social uncertainty decreases. He further argues that "familiarity builds trust because it creates an appropriate context to interpret the behavior of the trusted party." In SNS, the participant's familiarity reflects his or her knowledge regarding how the website operates and what procedures are involved within

the service. Luhmann's argument has been investigated in e-commerce context through a series of empirical tests. Gefen et al (2003b) concluded that familiarity with the e-vendor per se does not significantly increase trust when other antecedents are involved, but when treated alone, familiarity directly associates with trust. Hence, relationships between familiarity, trust, and PEOU will be tested within the SNS context via the following hypotheses:

H4: Familiarity will be positively associated with Trust.

H5: Familiarity will be positively associated with Perceived Ease of Use.

The benefits of high levels of trust can be seen in multiple ways. From the consumer's perspective, high levels of trust permit consumers to save time and effort due to reduced requirements for monitoring reliability and quality of a vendor's business (Gulati, 1995). From the vendor's perspective, high levels of consumer trust promote long-term relationships. An important ingredient leading to benefits is the positive effect of trust on perceived usefulness (Gefen et al., 2003b). User perceptions can be further decomposed into technical and non-technical dimensions. Technical dimensions refer to the various features of online services (e.g., online profile setup and network management) while non-technical dimensions refer to activities that must be facilitated by humans (e.g., account creation and technical support). Trust helps users establish higher levels of perceived usefulness of e-commerce or SNS providers, thus realizing the benefits of fair outcomes and long term use.

A critical difference between e-commerce and SNS in China is that the latter is not oriented towards monetary transaction services. SNS membership does not entail long term financial obligations, nor does it require an upfront cost to use the service. The possible behaviors of SNS providers therefore have little, if any impact on users' financial interests. By mitigating concerns about undesirable financial behaviors of SNS providers, Chinese SNS membership systems reduce social complexity and build trust, which has been demonstrated in other ICT (Gefen et al., 2003b). Hence I did not include the path between trust and the use intention in my research model. If SNS turn into strongly commercial oriented services in the future, then trust should be tested in terms of making direct impact to UI. In the current stage of research, the relationship between trust and PU is my focus. The hypothesis is constructed as follows:

H6: Trust will positively affect Perceived Usefulness, where users who trust the SNS and are familiar with the SNS, they are more likely to believe that they are able to extract useful information from the SNS.

Perceived risk is defined as an expectation of loss (Stone, 1987) or "consumer's subjective judgment of an expected loss in chasing planed outcome" (Pavlou, 2003, p. 109). Risk perception here is relatively useful for us to study and understand what SNS user concerns about SNS privacy and the mutual relationship constructed between information privacy, information leaking risks and SNS use intention. As Stone (1987) mentioned that the perceived risk is directly proportional to intentions and behavior

(Stone, 1987). Pavlou (2003) also pointed out that the behavioral uncertainty for online consumers is mainly caused by Web products misrepresenting, private information leaking, advertising misleading, false identities, and warranties denouncing. Occasionally, risk perception of consumers may include the monetary loss risk, purchasing of unsafe and useless products and services risk, seller performance risk, and disclosure of private information risks. However, for SNS users, the concerns of financial and purchasing disadvantage are relatively lower if I compare them to e-commerce or e-finance service providers. The dominant concern for SNS users is mostly about the disclosure of private information risk. Thus the degree of effectiveness of risk perception would not directly influence the user intention.

Previous researchers had proved that trust exists only when there is the potential risk based on their studies (Grabner-Krauter and Kaluscha, 2003; Mayer, 1995). Lee and Turban (2001) mentioned that without examining the relationship between risk and trust would make any study of trust incomplete. The level of risk occurred may cause different level of trust, specially perceived and implied, which would lead individual user to make a choice of whether to trust service providers or not. So, it can be inferred that the level of trust is dependent on the context of what is involved, and what degree of risk is implied ([65] Vaux Halliday, 2003). Other researchers also emphasis that trust has a very strong effect on perceived risk ([66] Viklund, 2003). As a result of this, perceived risk would eventually be negatively associated with trust when the two variables are evaluated by SNS providers. The level of perceived risk shown by the SNS

providers would be largely depended on word of mouth effect conducted by customers in information sharing and exchanging process. Therefore, after being influenced by the degree of perceived risk, trust and especially public trust, might largely influence user intentions. My hypothesis is set to be:

H7:   Perceived risk should have negative effect on trust.

National Culture

Another element that has drawn my attention is how user's intention is influenced by the degree to which an SNS has adopted the national culture of its target users, in my case, the Chinese culture is shared by utmost people of working class in China. National culture (Chen et al., 2008) is defined as the "systems of beliefs and norms of behaviors that represent the national characteristics and that are transmitted from generation to generation through learning and human interaction." There are numerous academic researches conducted previously which have focused on analyzing the influence of national culture on the operation of international businesses, particularly those online business activities.   The research conducted by Chen et al, (2008) is primarily focused on the association between national culture and trust. The conclusion resulted from their empirical study shows that the relationship between national culture and trust is indicated to be positive. This study moderates their hypothesis in order to make the construct of national culture effective to the user's intention for SNS. In my case, trust is designed to be a dependent variable that will be directly associated with perceived

usefulness, and is indirectly associated with the user's intention for SNS. Therefore this study set the construct of national culture to be the component that will directly link to the overall result of the level of user's intention. This can be explained with realistic phenomenon. Customers tend to consider about the cultural background of a service provider in order for them to make decisions about participating behavior. Their aim is to choose the service provider who engages in a cultural context that respect and consists of the cultural background of their own. If there are a variety of different options, the service provider which shows the greatest degree of cultural adoption will be the most favorable choice amongst other competitors. The measure of the degree of cultural adoption is rather complex. There are too many dimensions that are playing roles within the overall cultural impact existing to SNS users particularly, such as the perceived understanding of the displaying language, the design of the configuration of the virtual platform, as well as the adoption of specifically cultural custom within the information communication. In my research, the construct of national culture is defined to be the degree of attention and adoption of the domestic cultural context that a SNS provider has presented in the construction and development of its virtual platform. Therefore, my last hypothesis for the research topic is designed to be:

H8: National culture will positively affect user's intention of SNS.

Research Model

My   model reflects both established construct relationships as well as newly suggested

inferences. Use Intention (UI) is the dependent variable, which measures the user's intention of subscribing to SNS. The Perceived Ease of USE (PEOU) and Perceived Usefulness (PU) act as the mediating variables which influence Familiarity and Trust. Furthermore, the construct Trust is also affected by Perceived Risk (PR). Centrality and National Culture are two independent variables, which influence UI individually without being interrupted by the relationship of other variables. The research design and methodology are discussed later in my research. As being displayed in Figure 1, the construction of all 8 variables in my research model represents the relationship that was suggested. The diagram underneath works as putting all the eight hypothesises in a clear expression
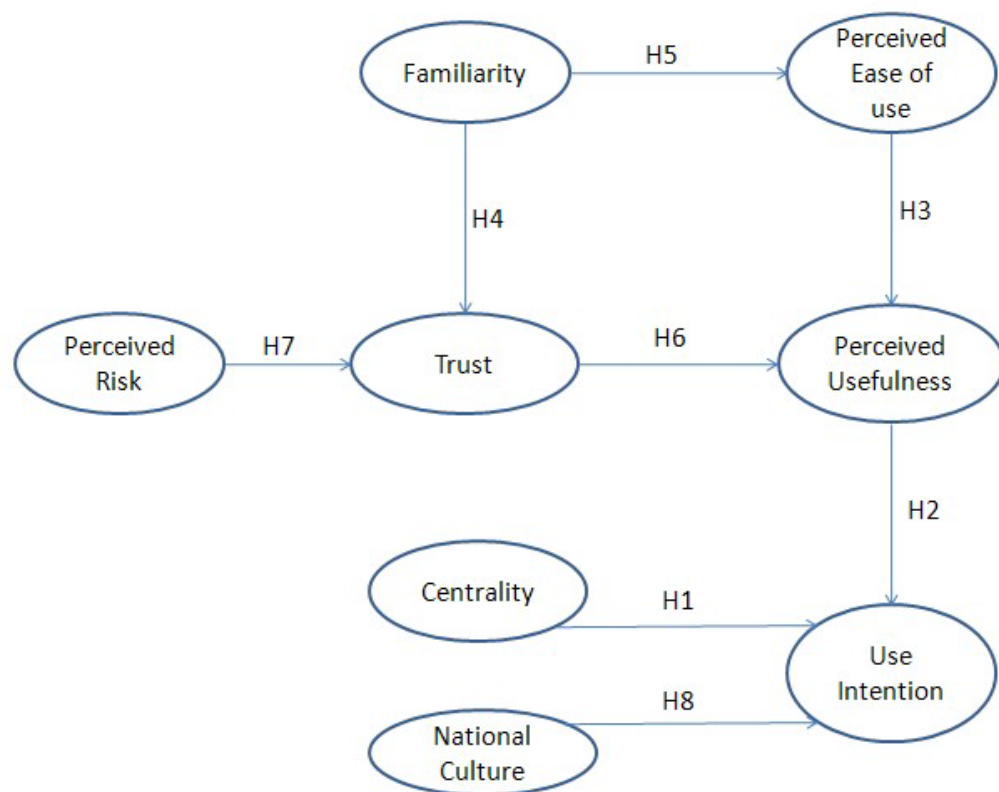

Figure 1, Proposed Research Model of SNS Use in China

Methodology

The research methodology consists of the three phases. Phase One, review extant research literature related to the influential factors of online social networking participation. The purpose is to identify explanatory constructs from academic works across disciplines including social network theory (e.g., SCT) and individual-level technology acceptance. These constructs are incorporated into a comprehensive model that builds the conceptual foundation for my empirical investigation. Phase Two, establishes profiles of targeted respondents for data collection. Due to the lack of previous research, it is necessary to recognize the unique characteristics of SNS users. Doing so allows us to evaluate the generalizability of my findings. Finally, in Phase Three, also to be the most important stage of my research, a survey instrument is created and distributed to a certain group of Chinese SNS users, that is the users aged from 22 to 31 years old who consists of the working age population. The conducting process of the survey will be cooperated with a number of small to medium sized Chinese companies located in three major cities: Beijing, Shanghai, and Shenzhen. The cooperated companies will be given the responsibility of handing out the survey questionnaire to their employees, but it is the employee himself/herself to decide whether or not to return the questionnaire with all the honest responses. Empirical evidence can be obtained and analyzed to pinpoint the role of SNS use antecedents.

Scale Development and Instrument Design

The instrument chosen for this research will be subject to content validity analysis, in order to enable the broadest generalization it is necessary to identify the sampling frame, where the instrument components are required to be accessed for reliability and validity issues.

The five point Likert scale, consisting of strongly disagree, disagree, neutral, agree and strongly agree has been chosen because it provides a balance of parsimonious design, where it allows respondents to choose what is most applicable to them. Many research contains scales of 1-10, where it allows respondents to have a wider range to choose from; however Dawes (2008) has found that data collected from 5, 7 or 10 choices showed very similar characteristics, where they collect almost the same data, which had similar mean, variance, skewness and kurtosis. The terms "somewhat disagree" and "somewhat agree" were removed from our research, as it can be ambiguous to many respondents, and therefore fails to provide psychometric advantages.

It is necessary to take into account response bias, which creates barriers to collect accurate datat o reflect social phenomena. Such challenges include central tendency, acquiescence, and social desirability bias. It is important to design a scale with balanced keying, as the positively keyed items will be able to balance out the negatively keyed

items, which will mitigate the problem for acquiescence. Furthermore, respondents are expected to answer the questionnaire with a true perception of what they perceive, this would reduce central tendency bias. The questions are not based on their work performance or self evaluations, therefore it can be expected that the answers provided can be trusted. By using a 5 point scale, it will further reduce central tendency bias, as it does not provide many options for respondents to expose their individual identity.

There are theories built around the survey questions, which are extracted from relevant literatures, such as Theory of Planned Behavior, TAM, the Unified Theory of Acceptance and Use of Technology (ITAUT), social capital theory and trust.

As mentioned previously PU, PEOU, familiarity, trust and centrality all directly or indirectly have a relationship with use intention of SNS, where familiarity and trust are expected to affect dependent variables through the proxy effects of the direct constructs.

Data Collection

The working procedure of the survey is obtaining random observations aged 22-30 years in randomly selected small/medium companies across 6 big cities in China. Firstly the survey request was sent through email to one hundred companies' manager and asked for 10-30 usable replies. While twenty-three companies out of one hundred gave back totally 341 answered survey but usable answered survey was 327 mainly due to too many missing data or wrong number scale (some people used scale of 10). Of

those, the response rate of the one hundred randomly selected companies is 23%. Given the responded companies, 95.9% observations are usable and each responded company gave back 14.2 usable replies, on average. There were certain limitations with the data collection, as it was not distributed out to the employees at random, but was dependent upon the manager to distribute it amongst his employees, which can cause bias, as he will only pick a certain group of employees.

Demographic Genre	Categories	Number	Percentage (%)	Cumulative Percentage (%)
Gender	*Male*	173	52.91	52.91
	Female	154	47.09	100
Age (in years)	*22-24*	101	30.89	30.89
	25-2 7	121	37.00	67.89
	28-30	105	32.11	100
Internet Experience (in years)	*<=1*	7	2.14	2.14
	1-3	31	9.48	11.62
	4-6	160	48.93	60.55
	>=7	129	39.45	100
SNS Experience (in years)	*<=1*	37	11.32	11.32
	1-3	167	51.07	62.39
	4-6	97	29.66	92.05
	>=7	26	7.95	100

Table 1, Demographic Information of Respondents

Discussion and Implications on the outcome of the Hypothesis

Data Analysis

Table 1 suggests that the spreads of the 327 observations that obtained after a multiple clustering analysis. The percentage between different gender and age groups are quite similar. Most people in my observational study have an internet experience over 4 years. More than half in my study have 1-3 years SNS Experience and more than half have 4-6 years SNS Experience in the rest.

The results were sorted on the factors each question reflects and were put into groups. The average values of each of such group against their relevant factors were listed in *Table 2*. (Statistic calculation done through R Professional Statistic System, partially presented for reference only)

Observation	PU	PEoU	Trust	Centrality	Familiarity	PR	NC
1	4.2	4	3.75	2.67	4.67	1.33	4
2	4.2	3.8	4	3	5	2	4.33
3	4	3.8	4.5	3.33	4.67	2.33	4
4	3.8	4.4	4	4.33	3.67	2	3.33
5	4	4.2	3.25	3.67	4.33	1.67	3.67
…	…	…	…	…	...	…	…

| 327 | 4.6 | 4.4 | 4.25 | 3 | 4 | 2 | 4 |

Table 2, Average value of part of the Hypothesis associated factors

In order to determine the relationship among these factors, five statistic models should be established: 1 **Regression Model** (determine the relationship between 3 qualitative variables and 1 qualitative dependent variable), 1 **Two-way Anova model** (determine the relationship between 2 qualitative variables and 1 qualitative dependent variable), and 3 **One-way Anova models** (determine the relationship between 1 qualitative variables and 1 qualitative dependent variable).

1, Regression Model:

Variable	Coefficient	Standard Deviation	P-value
Intercept	-0.05	0.26	0
Centrality	0.31	0.05	**0.000359**
National Culture	0.29	0.09	**0.041401**
PU	0.33	0.02	**0.000002**

This model has shown how much UI is influenced by Centrality, PU and National Culture. The P-value of Centrality, National Culture and PU are 0.000359, 0.041401 and 0.000002, and are all less than 0.05 (significance level), which means the observation rejects the null hypothesis or in other words, UI will be directly influenced by Centrality, National Culture and PU.

2, Two-way Anova model:

Variable	Coefficient	Standard Deviation	P-value
Intercept	0.01	0.10	0
Trust	0.47	0.15	**0.034473**
PEOU	0.48	0.06	**0.000015**

This model has shown how much PU is influenced by Trust and PEOU. The P-value of Trust, PEOU are 0.034473 and 0.000015, and are all less than 0.05 (significance level), which means the observation rejects the null hypothesis or in other words, PU will be directly influenced by Trust PEOU.

3, One-way Anova model:

Variable	Coefficient	Standard Deviation	P-value
Intercept	4.93	0.06	0
PR	-0.99	0.09	**0.000001**

This model has shown how much Trust is influenced by PR. The P-value of PR is 0.000001, and are all less than 0.05 (significance level), which means the observation rejects the null hypothesis or in other words, Trust will be directly influenced by PR.

4, One-way Anova model 2: (shows how much T is influenced by F)

Variable	Coefficient	Standard Deviation	P-value
Intercept	-0.02	0.17	0
Familiarity	0.95	0.20	**0.000311**

This model has shown how much Trust is influenced by Familiarity. The P-value of Familiarity is 0.000001, and are all less than 0.05 (significance level), which means the observation rejects the null hypothesis or in other words, Trust will be directly influenced by Familiarity.

5, One-way Anova model 3:

Variable	Coefficient	Standard Deviation	P-value
Intercept	0.04	0.11	0
Familiarity	0.94	0.19	**0.020748**

This model has shown how much PEOU is influenced by Familiarity. The P-value of Familiarity is 0. 020748, and are all less than 0.05 (significance level), which means the observation rejects the null hypothesis or in other words, PEOU will be directly influenced by Familiarity.

However, there might be problems in my model including Common Method biases and sampling biases; they will be discussed in the later analyses.

Common Method Bias

There always are Common Method biases that cannot be avoided, such as all the observations I obtained are self-reported, sometimes respondent can be misleading or misunderstand the question, sometimes people mischief-making answers. Sometimes I cannot do much about these kinds of problems, to minimize it I can try to write a simple introduction to your survey collector, and sometimes I can write a few more questions before the major questions to know more about their personal behavior such as what is highest school qualification, how do you usually spend your leisure time, are you a smoker or not, alcoholics or not?

Biases and Limitations

There are three major biases in my observational study they are Selection Bias, Self-Selection Bias and Non-Response Bias.

Selection Bias has been considered to be the biggest bias in the survey design caused by many reasons. Firstly my survey was randomly handed out to companies by emails which limits my observations come from unemployed people, unemployed usually has more time to spend on internet for purposes other work but entertaining than employed people, purpose of using internet and SNS usually quite different too. Internet is very popular nowadays in China everywhere even in many rural areas but the lifestyle

of people in rural area is quite different from urban life; people in smaller towns and rural area usually have more time to spend on internet than people in big cities. This fact is obvious in China, although larger cities have greater Internet signal coverage, but the current work stress for general white collars in the Chinese working environment is much worse than the same class in Western countries. (China's White collars, 2008). All respondents from my survey are living and working in big cities, which limit my observations come from medium, small cities and rural area. Age group is another cause of selection bias as all of my respondents are aged 22-30 years old. Certainly these people are the majority of SNS users but I cannot ignore other age group SNS user such as many teenagers spend a lot time on SNS everyday presently (iResearch, 2009). As these reasons above Selection Bias has been considered to be the major problem of my survey design, to avoid this problem I need to put in more effort to select different type of people, this costs much more time and money to do this survey.

Once the survey is passed away to the companies' manager, the manager would not force anybody to do this survey which means all of my respondents are volunteers, and this might result in most of my respondent are active user of SNS. I might miss some people not frequently use SNS but they actually do use it for some reason do not have interest to do my survey. This problem is called Self-Selection Bias in survey design. Non-Response Bias is another limitation. 77 out of 100 companies did not give any feedback to us due to a wide range of reasons so I might miss so many useful observations that might be helpful to my survey analysis. To avoid these two biases I can use reward method, for example give cash or cash vouchers to every respondent,

give commission to the company or the manager to motivate people to do my survey. In the another hand, the short of reward method is if you give little money people will not be interested in, if you give more money some people may do several surveys just for earning money.

There are some other limitations such as all the questions are close ended questions; sometimes questions only with 1-5 scale narrowed the respondents' answer. But it is hard to collect and compare the answers of open-ended questions. My sample size is only 327, there are 338 million internet users in China presently, but to increase the sample size cost much more money and time, as statistical observational study 327 samples is fairly enough.

Implications

The objective of this particular research is to establish a framework for Chinese social capital and socio-cultural around the use of SNS, which is affected by a number of factors such as user perceptions, trust and technology. It was gathered from this research that network centrality has a positive correlation with SNS use intention, in particular amongst the younger generation of Chinese internet users, who are computer literate and has a degree of education. Venkatesh et al (2003) whom conducted similar research on social capital found that the results coincided with previous research, which indicated that social influence "to be significant only in mandatory settings" and "more likely to be salient to other workers, particularly women, and even then during early stages of experience/adoption".

After my research, the empiral studies has found similar results proposed by Venkatesh et al (2003) prior, where there is a strong indication that social influences is any important component, which can be used to predict behavioral intentions to use ICT. In particular those ICT which is not bound by workplace constraints, where it is difficult to draw a line between working and non working situations. It is crucial to understanding the underlying incentives between the real and virtual community, as it will allow business strategists to carefully select appropriate business strategies in digital services. For example, for a foreign SNS to enter a local market, it is important for them to understand the social influences in the local market, in order to adapt their services.

The theories for perceptions of social network services users is developing, this would provide academic researchers with a number of channels where they can study phenomena and innovative services a lot further. Not only will such research benefit academics but it will also benefit SNS providers, where theyw ill be able to position their business, and correctly strategize, by obtaining critical insights into customer relationships (e.g. level of social capital within target customers). Discovering social ties between individuals will also allow businesses to discover potential markets, such as school alumni, sports clubs etc. .

The findings established earlier in this research between the relationships of familiarity, trust and perceived ease of use, suggests that it is necessary to website designers to adopt a large range of tests, in order to establish SNS quality, such as user friendliness.

It is also necessary to engage with public media, where it will allow the SNS to build a reputation and positive image for potential users, before the service is launched on the market. iResearch (2009) has stated that there are more than 700 million SNS users around the world, where global penetration of the SNS market has mainly focused on having a strong understanding of local culture, that differs from one country to another. Local SNS providers in China are gaining more popularity, when compared to sites such as Facebook, one of the contributing factors of its success, is its ability to understand the Chinese culture. In September 2009, Kaixin and Xiaonei, China's local SNS providers, were ranked 2nd and 4th among Chinese SNS in terms of user coverage, while Facebook was struggling outside "Top 10". (iResearch, 2009).

Conclusion

My fundamental goal of this research is to analyze the degree to which social and individual factors are influencing user's intentions so they are motivated to engage in virtual social networking. My overall empirical findings establish the significant relationships among tested constructs. Perceived Usefulness together with Centrality account for a great part of variance in Use Intention, the dependent variable. Familiarity, an antecedent of Trust, is associated not only with Trust but also with Perceived Ease of Use, as suggested by theoretical references such as Technology Acceptance Model. Perceived Ease of Use was associated with familiarity; while its relationship with Use Intention was mediated by Perceive Usefulness. My last construct, the Centrality, is directly proportional to Use Intention.

Limitations & Future Research

I have realized that there should be at least three more modifications which will possibly improve the reliability of my research. First of all, the homogeneity of my sample population, in terms of my demographic background, is something that I can modify. In fact, SNS are supposed to be designed for the utility of the general public despite the differences of individual background. Even though the current Chinese SNS users are typically younger than SNS users in other countries, but this situation will definitely be altered as the technology acceptance extends its boarder in the Chinese population, as well as the growing up generation who enters the market in future. The next idea of improvement is that I can make additional contributions to the quantitative approach by combining qualitative approach. My research is totally based on qualitative statistical analysis. However, qualitative research offers us the opportunity to collect more responses with rich insights and diversified opinions. The contemporary IS academics pays more attention to the approach of methodological pluralism for its three dimensions of research strategy, which includes realism, precision, and generalization (McGrath, 1982). This research approach shows that it is impossible to maintain the requirements of realism, precision, and generalization at once, especially for those studies which aim to discover new inferences by relying on past theoretical analysis. The research's cross-sectional construction is one of the other limitations. This will undoubtedly means that the explanation of causality is difficult to be conducted. In this situation, I suggest that by applying longitudinal observations and studies, the targeted

group of users and their activities can be studied repeatedly over a certain period of time and make my findings more precise.

The statistics analysis on the relationship between the perceived risk and trust has indicated a very strong dependence of the negative effect that the perceived risk could directly influence on the construction of a positive customer trust. Risk has a moderating effect on consumers' use intention as they often try to avoid mistakes rather than benefit from use activities. By taking that into consideration, shoppers may choose brands with high creditability to avoid risk (Mitchell, 1999). If SNS users have sufficient trust with SNS providers, then this may outweigh the level of their potential perceived risk. By achieving the decent balance stage between risk and trust, where the level of trust is greater than the level of risk, is essential to the e-service providers (Grabner-Krauter and Kaluscha, 2003).

In earlier period, six dimensions of risk defined by Beardon and Mason (1978) which are financial, social, time, performance, psychological and physical, and with two more factor which had been developed more recently as "technological" (Leibermann and Stashevsky, 2002) and "Security" (Merriman, 2002) categories. A different framework of categories was developed by Chadwick (2001, p. 656), who rephrased that evidence that an e-service providers could have high creditability of trust is to be considered as its "seals of approval" brand, fulfillment, presentation and technology. He argued that most analysts had limit of e-service trust with issues of privacy, risk security and reliability.

So if the SNS providers could use those risk dimensions to overweight the perceived risk effect over trust, this would then indirectly improve the use intention.

At the end, I believe that the future academics who have the interest of studying the similar topic can relate their approach to Hofstede's theoretical cultural dimensions. These dimensions consist of the pair of individualism and collectivism, femininity and masculinity, power distance, time orientation, and the awareness of uncertainty. Together they can provide a qualitative measure for subjective factors like socio-cultural contexts so I can make reasonable comparison instead of establishing unrealistic assumptions. Taking cultural and societal differences into my researching concern is important, despite the fact that ICT dissolves the actual geographic and territorial limitations (Lu and Heng, 2009). Cultural differences always exist within different social contexts. Not only for the international businesses like MySpace, the awareness of contrasts in cultural dimensions is also required for academics as it can obviously contribute to a better construction of research model. For example, the U.S. society is believed by Hofstede to be highly individualistic. This differentiates the U.S. customers from Chinese customers who tend to be more collective in terms of social value. This means that the U.S. customer cares less about the social influence and group interests but more on personal activities and individual satisfaction. On the other hand, the Chinese customers might care more about the acceptance of their virtual status taken by other users within the online community. This difference could explain the reason why reputation is not as essential as to Chinese society when it is associated with use

intentions in Western societies. Additional designs based on the test of security, privacy, and perceived risks are useful components for modifying my   current research model for overall goodness of fit. It is important, however, to maintain the principle of parsimony in the instrument design, given that a complicated survey hinders respondents from providing true opinions. I strongly recommend future researchers carry out replication of my research in other social and technical context which is different to my targeted context, China.

Reference List

Ahuja, M., Galletta, D., and Carley.K. (2003). "Individual Centrality and Performance in Virtual R&D Groups: An Empirical Study", *Management Science,* 49(1), 21-38.

Ajzen, I. (1991). "The Theory of Planned Behavior," *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.

Beardon, W.O. and Mason, J.B. (1978). Consumer perceived risk and attitudes to generically prescribed drugs. *Journal of Applied Psychology*, Vol. 63, 741-6.

Bellman, S., Lohse, G. L. and Johnson, E. J., (1999). "Predictors of Online Buying Behavior," *Communications of the ACM, 42*(12), 32-38.

Boutin, P. (2009). "China Lets a hundred Social Networks Bloom (Sort OF)," *New York Times*, August 25, 2009. Retrieved July 12, 2010 from http://gadgetwise.blogs.nytimes.com/2009/08/25/chinese-use-social-networks-more-than-americans-until-the-government-shuts-them-down/.

Boyd, D. M., & Ellison, N. B. (2008). "Social network sites: Definition, history, and scholarship," *Journal of Computer-Mediated Communication,* 13(1), 210-230.

Boyer-Wright, K. M., & Kottemann, J. E. (2009). "An Empirical Assessment of Common Fundamentals in National E-Readiness Frameworks," *Journal of Global Information Technology Management*, 12(3), 55-74.

Buchholz, R. A., & Rosenthal, S. B. (2002). Internet privacy: Individual rights and the common good. *SAM Advanced Management Journal*, 67(1), 34-41.

Burt, R. S. (1992). Structural Holes: *The Social Structure of Competition*, Harvard University Press, Cambridge, M A.

Byrne, B. M. (2006). *Structural Equation Modeling With EQS*: Basi Concepts, Applications, and Programming, Lawrence Erlbaum Associates.

Campbell D. T. & Fiske, D. W. (1959). "Convergent and Discriminate Validation by the Multitrait-Multimethod Matrix," *Psychological Bulletin,* 56, 81-105.

Chadwick, S.A. (2001). "Communicating trust in e-commerce interactions", Management
Communication Quarterly, 14(4), pp. 653-8.

Charters, D. (2002). Electronic monitoring and privacy issues in business-marketing: The ethics of the double click experience. *Journal of Business Ethics*, 35(4),

243-255.

Chellappa, R. K., & Pavlou, P. A. (2002). "Perceived Information Security, Financial Liability and Consumer Trust in Electronic Commerce Transactions," *Logistics Information Management,* 15(5), 358-368.

Chen et al,. (2008). Cultural Impact on Trust: A Comparison of Virtual Communities in China, Hong Kong, and Taiwan. *Journal of Global Information Technology Management*. 11, 1.

China Internet Network Information Center (2009). "Statistical Report on Internet Development in China," Retrieved July 12, 2010 from http://www.cnnic.net.cn/uploadfiles/pdf/2009/10/12/114121.pdf.

China's White Collars, (2008). Retrieved November 5, 2011, from http://news.china.com/zh_cn/domestic/945/20060808/13523285_1.html

Coleman, J.S. (1988). "Social Capital in the Creation of Human Capital," *American Journal of Sociology Supplement,* 94, pp s95-s120.

Cronbach, L.J. (1971). "Coefficient Alpha and the Internal Structure of Tests," *Psychometrika*, 16, 297-334.

Dann,S., & Dann, S.J. (2011). *E-marketing: theory and application*, Palgrave Macmillan, New York.

Dawes, J. (2008). "Do Data Characteristics Change According to the number of scale points used? An experiment using 5-point, 7-point and 10-point scales," *International Journal of Market Research* , 50(1), 61-77.

Gefen, D., Karahanna, E., & Straub, D. W. (2003). "Inexperience and Experience with Online Stores: The Importance of TAM and Trust," *IEEE Transactions on Engineering Management,*50(3), 307-321.

Gefen, D., Karahanna, E., & Straub, D. W. (2003). "Trust and TAM in Online Shopping: An Integration Model," *MIS Quarterly,* 27(1), 51-90.

Goodwin, C. (1991). Privacy: Recognition of a consumer right. Journal of Public Policy and Marketing, 10(1), 149-167.

Grabner-Krauter, S.G. & Kaluscha, E.A. (2003). "Empirical research in on-line trust: a review and critical assessment", *International Journal of Human-Computer* Studies, 58, 783-812.

Gulati, R. (1995). "Does Familiarity Breed Trust? The Implications of Repeated Ties for Contractual Choice in Alliances," *Academy of Management Journal,* 38(1),

85-112.

Guo, C., Shim, J.P., & Otondo R. *(*2010). "Social Network Services in China: An Integrated Model of Centrality, Trust, and Technology Acceptance," *Journal of Global Information Technology Management,* 13(2), pp 76.

Hair, J. F., Black, B., Babin, B., Anderson, R. E., & Tatham, R. L. (2005). *Multivariate Data Analysis* (6th Edition) (Hardcover) Prentice Hall.

Hargittai, E. (2007). "Whose Space? Differences Among Users and Non-User of Social Network Sites," *Journal of Computer-Mediated Communication*, 13(1), 276-297.

Hill, A., Roberts, J., Ewings, P., & Gunnell, D. (1992). "Non-response Bias in a Lifestyle Survey," *Journal of Public Health Medicine,* 19(2), 203-207.

Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations,* (2nd ed.) Sage Publications, Thousand Oaks, CA.

Howard, P. N. & Jones, S. (2004). Society Onlline: The Internet in Context. *Sage Publications*, Thousand Oaks, CA.

Hoy, M. G., & Phelps, J. (2003). Consumer privacy and security protection on church Web sites: Reasons for concern. *Journal of Public Policy & Marketing*, 22(1), 58-70.

Internet World Statistics, (2010). accessed on August 6th, 2010 *http://www.internetworldstats.com/dsl.htm*.

iResearch Consulting Group, (2009). Annual Report of Chinese Social Network Service Market 2008-2009, pp 14-29.

Kanuk, L., & Berenson, C. (1975). "Mail Surveys and Response Rate: A Literature Review," *Journal of Marketing Research,* 12(4), 440-453.

Kelley, H. H. & Thibaut., J. W. (1978). *Interpersonal Relations: A Theory of Interdependence,* John Wiley & Sons, New York.

Leibermann, Y. & Stashevsky, S. (2002). Perceived risks as barriers to internet and ecommerce usage. *Qualitative Market Research: An International Journal*, 5(4), 291-300.

Lin, N. (2001). *Social Capital* Cambridge University Press, Cambridge, UK.

Liu, H. (2008). *Chinese Business: Landscapes and strategies*.(1st edition). Routledge, New York.

Lu, X., & Heng, M. S. H., (2009). "Cultural Influence on IS Practices in China: A Literature Analysis" *Journal of Global Information Technology Management,* 12(4), 6-24.

Luhmann, N. (1979). *Trust and Power,* John Wiley & Sons, Chic ester, England.

Mayer, R. C., Davis, J. H. & Schoorman, F. D. (1995). "An Integration Model of Organizational Trust," *The Academy of Management Review*, 20(3), 709.

McCloskey, H. (1980). Privacy and the right to privacy. Philosophy, 55(211), 17-38.

McGrath, J. E. (1982). "*Dilemmatices: The Study of Research Choices and Dilemmas,*" in: Judgment Calls in Research.

McKnight, D. H., Cummings, L. L., & Chervancy, N. L. (1998). "Initial Trust Formation in New Organizational Relationships," *Academy of Management Review,* 23(3), 472-490.

Merriman, I., Ward, P. & Davies, B. (2002). *"Buying online: an exploratory investigation of risk perception within internet shoppers and non-shoppers"*, paper presented at the Academy of Marketing Conference, Nottingham University, Nottingham, July.

Mitchell, V-W. (1999). *"Consumer perceived risk: conceptualisations and models"*, *European Journal of Marketing*, 33(2), 163-95.

Mukherjee, A. & Nath, P. (2007). "Role of Electronic Trust in Online Retailing: A Re-examination of the Commitment-Trust Theory," *European Journal of Marketing,* 41(10), 1173-1202.

Parameswaran, M., & Whinston A. B. (2007). "Research Issues in Social Computing," *Journal of the Association for Information System,* 8(6), 336-350.

Pavlou, P. A. (2001). "Integrating Trust in electronic Commerce with the Technology Acceptance Model: Model Development and Validation," *Seventh Americas Conference on Information Systems*, pp. 816-818, Atlanta, GA.

Pavlou, P. (2003). Consumer acceptance of electronic commerce: Interating trust and risk with the technology acceptance model. International Journal of Electronic Commerce, 7(3), 101-134.

Steiger, J. H. (2007). "Understanding the Limitations of Global Fit Assessment in Structural Equation Modeling," *Personality and Individual Differences,* 42(5), 892-898.

Stone, R. N., & Winter, F. W. (1987). *Risk: Is it still uncertainty times consequences?* In Belk, R. W. et al. (Eds.), Proceedings of the American Marketing Association, 261-265.

Straub, D. Boudreau, M. C., & Gefen, D. (2004). "Validation Guidelines for IS Positivist Research" *Communications of AIS*, 13(24), 380-427.

Vaux Halliday, S. (2003). "Which trust and when? Conceptualizing trust in business relationships based on context and contingency". *International Review of Distribution and Consumer Research*, 13(4), 405-21.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). "User Acceptance of Information Technology: Toward A Unified View" *MIS Quarterly,* (27:3), 425-478.

Venkatesh, V., & Bala, H. (2008). "Technology Acceptance Model 3 and a Research Agenda on Interventions," *Decision Sciences,* (39:2), 273-314.

Viklund, M. (2003). "Trust and risk perception in Western Europe: a cross-national study", *Risk Analysis*, 23(4), 727-38.

Warren, S. D., & Brandeis, L. D. (1890, December). *The right for privacy*. Harvard Law Review, 4, 193-220.

Wasko, M. M., & Faraj, S. (2005). "Why Should I Share? Examining Social Capital and Knowledge Contribution in Electronic Networks of Practice," *MIS Quarterly*, 29(1), 35-57.

Xu, B., Shao, B., Lin, Z. & Shi, Y. (2009). "Enterprise Adoption of Internet Banking in China," *Journal of Global information Technology Management,* 12(3), 7-28.

Zucker, L. G., Staw, B. G., & Commings L. L. (1986). "Production of Trust: Institutional Sources of Economic Structure, 1840-1920," *Research in Organizational Behavior,* 8, 53-111.

Appendix

Survey Questionnaire

Section One, General Information

Do you work full time?*

   ☞ A. YES. (please continue....)

   ☞ B. NO. (please STOP here, thanks for your time)

Gender*

   ☞ A. Male   ☞ B. Female

Age*

    A. under 20   B. 20～25

    C. 26～40   D. over 40

Your income per month*

    A. less than 2000 Yuan   B. 2000～3000 Yuan

    C. 3000～5000 Yuan   D. 5000～10000 Yuan

    E. more than 10000 Yuan

What is your occupation?*

☐ A. Accounting	☐ B. Marketing & Sales
☐ C. Information Technology	☐ D. Human Resources
☐ E. Health	☐ F. Education
☐ G. Engineering	☐ H. Counselling
☐ I. Social & Legal	☐ J. Design & Illustraion
☐ K. Media	☐ L. others

How many years have you been using internet?*

How many years have you been using SNS?*

Section Two, the following items are for developing measurements about perceived usefulness.

Please respond each question by choosing one answer from A.Strongly agree, B.Agree, C.Neutral, D.Disagree, E.Strongly disagree*

	A Strongly Agree	B Agree	C Neutral	D Disagree	E Strongly Disagree
1. SNS enables me to socialize online more quickly	☐	☐	☐	☐	☐
2. Using SNS improves productivity of online socializing	☐	☐	☐	☐	☐
3. SNS makes online socializing easier	☐	☐	☐	☐	☐
4. Using SNS improves the chance of knowing new people	☐	☐	☐	☐	☐
5. SNS is useful in socializing	☐	☐	☐	☐	☐

Section Three, the following items are for developing measurements about perceived ease of use.

Please respond each question by choosing one answer from A.Strongly agree, B.Agree, C.Neutral, D.Disagree, E.Strongly disagree*

	A Strongly Agree	B Agree	C Neutral	D Disagree	E Strongly Disagree
1. Learning to operate SNS would be easy for me	▢	▢	▢	▢	▢
2. I would find it easy to get the SNS system to do what I want it to do	▢	▢	▢	▢	▢
3. My interaction with the SNS system would be clear and understandable.	▢	▢	▢	▢	▢
4. It would be easy for me to become skilful using the SNS system.	▢	▢	▢	▢	▢
5. SNS is easy to use	▢	▢	▢	▢	▢

Section Four, the following items are for developing measurements about trust.

Please respond each question by choosing one answer from A.Strongly agree, B.Agree, C.Neutral, D.Disagree, E.Strongly disagree*

	A Strongly Agree	B Agree	C Neutral	D Disagree	E Strongly Disagree
1. My SNS provider is onest	☐	☐	☐	☐	☐
2. My SNS provider cares about customers	☐	☐	☐	☐	☐
3. My SNS provider is predictable	☐	☐	☐	☐	☐
4. My SNS provider is trustworthy	☐	☐	☐	☐	☐

Section Five, the following items are for developing measurements about centrality.

Please respond each question by choosing one answer from A.Strongly agree, B.Agree, C.Neutral, D.Disagree, E.Strongly disagree*

	A Strongly Agree	B Agree	C Neutral	D Disagree	E Strongly Disagree
1. I am active in building social connections in SNS portal.	▢	▢	▢	▢	▢
2. I have strong connections with my partners in SNS portal.	▢	▢	▢	▢	▢
3. I have many social connections in SNS portal.	▢	▢	▢	▢	▢

Section Six, the following items are for developing measurements about familiarity.

Please respond each question by choosing one answer from A.Strongly agree, B.Agree, C.Neutral, D.Disagree, E.Strongly disagree*

	A Strongly Agree	B Agree	C Neutral	D Disagree	E Strongly Disagree
1. I am familiar with SNS through reading articles or advertising	☐	☐	☐	☐	☐
2. I am familiar with SNS through visiting relevant websites	☐	☐	☐	☐	☐
3. I am familiar with SNS through socializing online.	☐	☐	☐	☐	☐

Section Seven, the following items are for developing measurements about perceived risk.

Please respond each question by choosing one answer from A.Strongly agree, B.Agree, C.Neutral, D.Disagree, E.Strongly disagree*

	A Strongly Agree	B Agree	C Neutral	D Disagree	E Strongly Disagree
1. I am confident that my registration information will be kept under security	▭	▭	▭	▭	▭
2. I am confident that my personal information will not be used by a third party without my permission	▭	▭	▭	▭	▭
3. I trust the backstage maintenance and protection for the database which stores my personal information	▭	▭	▭	▭	▭

Section Eight, the following items are for developing measurements about national culture.

Please respond each question by choosing one answer from A.Strongly agree, B.Agree, C.Neutral, D.Disagree, E.Strongly disagree*

	A Strongly Agree	B Agree	C Neutral	D Disagree	E Strongly Disagree
1. I believe the way of expression of the SNS respect the customs and taboos in our communication	⊏	⊏	⊏	⊏	⊏
2. I believe the SNS understands clearly the uniqueness of my cultural background.	⊏	⊏	⊏	⊏	⊏
3. I am satisfied that the SNS knows the exact meaning and dates of the special occasions and festivals in my society.	⊏	⊏	⊏	⊏	⊏

Section Nine, the following items are for developing measurements about intension of use.

Please respond each question by choosing one answer from A.Strongly agree, B.Agree, C.Neutral, D.Disagree, E.Strongly disagree*

	A Strongly Agree	B Agree	C Neutral	D Disagree	E Strongly Disagree
1. I would use SNS to socialize with my friends.	▢	▢	▢	▢	▢
2. I would use SNS to socialize with new people.	▢	▢	▢	▢	▢
3. I am likely to provide the SNS provider with the information it needs to better serve my needs	▢	▢	▢	▢	▢

Thank you!