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碩士學位論文

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消費者間共鳴對購買意願之影響

An empirical study of the effects of customer resonance  
on purchase intention

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中華民國 103 年 6 月

## **Acknowledgements**

I would like to express my great appreciation to those who give me a hand when I worked in my essay. First and foremost, I would like to thank to our supervisor of my essay, professor Shari Shang for valuable guidance and advice. She inspired me greatly to work in this project. Her willingness motivates us to contribute tremendously to my essay. Besides, I would like to thank her for showing us some example related to the topic of the essay. Without her effort, I couldn't complete my essay on schedule. Second, I would like to thank the Management Information System in National Chengchi University for providing us with an excellent environment and atmosphere to study and complete my thesis. Department of MIS in NCCU is a good choice for everyone who wants to enrich himself or herself. Third, I would like to express my very great appreciation to my friends, including classmates in BPM lab, Nunu sisters for their enthusiastic encouragement. In addition, I would like to offer my special thanks to senior students for giving me professional advice and valuable support. Finally, I would like to take this opportunity to thank my family for supporting me during the preparation of my essay when I was in second year of graduate. Moreover, I wish to thank Dennis Tu for his assistance with giving me advice on logistic skills and presentation tips used in essay.

# 消費者間共鳴對購買意願之影響

## 摘要

近幾年來，社群網路因為使用者的參與已逐漸熱門熱門，成為我們生活中不可或缺的一部分。例如 Facebook、Youtube 以及 Flickr 都是目前使用者經常使用的社群媒體平台，我們可以在平台上發表任何任何想法，並且透過平台與其他使用者溝通。社群網路已經逐漸改變傳統人們的溝通方式，許多使用者再平台上發表內容以及訊息，當訊息被許多使用者廣為討論以及分享，因此在平台上有著所謂口碑的出現，也就是所謂的共鳴效應。本篇研究想了解使用者使用社群媒體並是如何透過社群網路達到共鳴效應。

本研究目的在於調查再社群網路上，何種因素會導致消費者去討論以及分享訊息，也就是使用者間的共鳴，之後更進一步探討，當使用者間的共鳴發生時，是否會影響到使用者的購買意願。本研究共蒐集了 410 份樣本並使用結構方程模型分析其樣本顯著與否。本研究結果發現其內容滿足、社會關係滿足與自我形象滿足都對共鳴有顯著影響，且共鳴對購買意願也有顯著影響。此外，本研究也執行分群分析將共鳴結果分為高共鳴與低共鳴兩族，分別探討其顯著指標與背後意義。

**關鍵字：**社群網路、消費者行為、使用與滿足、自我呈現、共鳴、購買意願

# **An empirical study of the effects of customer resonance on purchase intention**

## **Abstract**

In recent years, social network have become incredibly popular. Online communication platform such as Facebook, YouTube, and Flickr offer freely available user-generated content that enabled individuals to express their ideas and communicate their opinions to many people. People can create, modify, discuss, and share on social networks. Therefore, social networks have gradually become interpersonal communication platforms. Message resonated when information is shared among individuals. We want to have a better understanding of the use and gratification that users obtain from social networks when topic resonated among them.

We collected the 410 sample and used the structural equation model analyzed our proposed model by using SPSS 21.0 and SmartPLS. Besides, we also used K-means to partition our sample into two clustering and obtained the managerial implications. In our research, we observed that content gratification, social relation gratification and self-presentation gratification have impact on resonance and resonance also has influence on purchase intention.

**Keywords:** Social networks, Customer behaviors, Use and gratification, Self-presentation, Resonance, Purchase intention

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## Chapter 1 Introduction

Social media is referred to as consumer-dominated media that enables customers to converse online (Mangold and Faulds 2009). There are many social media activities such as creating, modifying, discussing, and sharing Internet content (Kietzmann et al. 2011). Many types of platforms including blogging, microblogging, and social networks exist on social media (Hoffman and Fodor 2010). In recent years, social networks have become incredibly popular. Social networks are generally defined as interactive communication environments that engage customers to express their opinions, exchange their experiences, disseminate messages, and share and reply to posts. We will discuss issues such as today news or characteristics of new products on close group of Facebook, Mobile 01 or other social network sites. These social networks have created a transition in interpersonal communication—away from traditional face-to-face and word-of-mouth interaction toward new forms of online communication referred to as electronic word-of-mouth such as user-generated content (Goh et al. 2013; Mangold and Faulds 2009). Previous studies have found that customers tend to trust user-generated content, such as recommendations of products reviews from customers on social media more than messages posted by businesses in traditional media (Goh et al. 2013). There is a shift of information control from business to customers (Mangold and Faulds 2009). Customers feel empowered to spread of information. One customer agrees with the information and then shares it with others online. In some cases, hundreds of customers agree with the information and then separately share it with others online. Therefore, social media can rapidly facilitate information sharing on the social network (Stieglitz and Dang-Xuan 2013). Messages resonate when information is shared among individuals. This resonance phenomenon means that people will provide feedback such as sharing or replying when they are interested and pay more attention to specific topics. Moreover, social media can influence various kinds of consumer behavior such as raise awareness, transfer information, express opinions, and purchasing behavior (Mangold and Faulds 2009). Goh et al. (2013) indicate that word-of-mouth is one of the key drivers in customer purchases.

Social media is a social platform that is available to anyone with Internet access. From the perspective of business, marketing on social media focuses on content that attracts attention from others and encourages them to share information. From the research of Goh et al. (2013), more than 1.5 million businesses set up fan pages on



social networks to reach and engage customers to spread information about their products and services. This form of word-of-mouth marketing refers to marketing that results naturally from social media rather than from paid media from corporations. However, from the viewpoint of customers, resonance is more likely to occur on social networks, with more interaction and communication between individuals. User-generated content, which is the observed output of consumers' engagement, is typically called word-of-mouth buzz generated by customers and is mainly composed of social networks (Goh et al. 2013; Kaplan and Haenlein 2010). Previous researchers have found that user-generated content has a strong impact on market-generated content (Goh et al. 2013). People will observe the number of reviews, replies, and the number of people sharing in user-generated content before they make purchases (Goh et al. 2013). Goh et al. (2013) indicate that people are more likely to believe user-generated content when they make repeat purchase decisions. Thus, comments or posts of specific messages of products from customers on social media may affect other customers purchase intentions and decisions. However, Riegner (2007) found that online word-of-mouth does not always result in the intention to buy. Sixty-one percent of users were influenced by offline sources such as browsing in a retail store rather than influenced by online word-of-mouth. This research suggested several reasons why consumers are not affected by online word-of-mouth (Riegner 2007). First, consumers want to see and touch items that they want to buy (Riegner 2007). Second, some user-generated content has too much emotional attachment to the product resulting in people not believing the reviews (Riegner 2007). Third, some personal and confidential details limit user-generated content on purchasing decisions (Riegner 2007). For example, some customer reviews about drug use would not directly affect other customer intentions to buy and use. The conclusion indicates that word-of-mouth does not affect individuals' purchase intention. According to the above discussion, we want to learn whether customer resonance with another form of customer word-of-mouth behavior has an impact on intention to buy.

As a new communication paradigm, social media plays an important role in promoting information dissemination on social networks (Stieglitz and Dang-Xuan 2013). The purpose of this study is to investigate what drives people to share or reply to content on social networks while customers' resonance arises and understand the impact of customer resonance on purchase intention. Below are the research questions we will investigate:

**RQ1.** What factors may have an influence on customer resonance on a social network?

**RQ2.** What effects does customer resonance have on purchase intentions?

We want to have a better understanding of the use and gratification that users obtain from social networks when topics resonate with them. In order to do so, we created a research model based on a use and gratification perspective. We wanted to understand different types of gratification underlying social media usage. We predict that content gratification, social-relation gratification, and self-presentation gratification will have an influence on customer resonance. Content gratification is based on the perspective of Kaplan and Haenlein (2010), who state that user-generated content is the main component for people using social media. Social networks are made up of varieties of individuals' relations. Hence, social-relation gratification is based on the viewpoints of Chu and Kim (2011), who state that people who use social networks want to build and maintain social relations in their personal networks. People who want to communicate with others create personal pages as a form of self-presentation. Based on the perspective of Schau and Gilly (2003), many activities on social networks could be viewed as a type of self-presentation. Once customer resonance is generated, we want to learn whether the resonance arising between customers has an impact on purchase intention. We will conceptualize and develop independent variables to explore different types of gratification, customer resonance, and purchase intentions.

The outline of the research is as follows. The first section provided a literature review on resonance with an emphasis on sharing and replying in customer online behavior regarding several factors arising from resonance and customer online-purchase intentions. We also made some hypotheses. In the subsequent section, we then presented the methodology. Then we collected the data and analyzed it to make a conclusion.

## Chapter 2 Literature Review

### 2.1 Resonance

Online communities such as Facebook, Youtube, and Flickr offer freely available user-created content that has enabled individuals to express their ideas and communicate their opinions to many people (Riegner 2007). When people are interested in a topic, they are more likely to discuss and share messages, thus creating resonance. The phenomenon of resonance is caused by massive responses that are triggered by someone who makes a posting and others react quickly (Gruhl et al. 2004). We will discuss the phenomenon of resonance from the perspectives of social media, business, and individuals.

From the perspective of social media, Solis (2010) defines resonance as successfully sharing social objects such as posts, pictures, and videos. Resonance means the speed and degree at which social objects change hands (Solis 2010). Regarding the Twitter platform, Liand Shiu (2012) stated that resonance is the interaction between users and sponsored tweets such as retweets, replies from the perspectives of advertising, and so on. From the perspective of business, Solis (2010) states that there are three critical-path stages of social media: relevance, resonance, and significance to achieve social-media business goals. Businesses first need to make their message relevant concerning their products or services, which can then attain resonance with customers (Solis 2010). The transition from relevance to resonance is sharing, which is motivated by individuals incentivized by thoughtfulness, values, and empathy on social media (Solis 2010). At least, based on the viewpoints of individuals, resonance is a cognitive engagement when an audience participates in media (Russell 2009). In addition, resonance is a pre-conditional behavior of word-of-mouth. Word-of-mouth refers to a customer-to-customer interaction that describes interactions among customers in online environments (Libai et al. 2010). Once a customer is aware and engaged, he or she will have a willingness to communicate with others (Hoffman and Fodor 2010). Word-of-mouth can be evaluated either from perspective of valence or incidence (De Matos and Rossi 2008). As for the perspective of valence, word-of-mouth is divided from positive, negative and mixed. Word-of-mouth could be seen a form of intention or behavior. Regardless of whether the person is satisfied or dissatisfied, they share their attitudes, opinions by posting, replying or even sharing. The differentiation of resonance and word-of-mouth is explained in Figure 1. Resonance is simply a behavior between user

and a post on the social networks. Hence, resonance is focus on individual level. On the other hand, word-of-mouth is a form of interaction among all users on the social networks and indicate on large-scale groups on the social networks. We compare the resonance and word-of-mouth to make a conclusion in table 1.

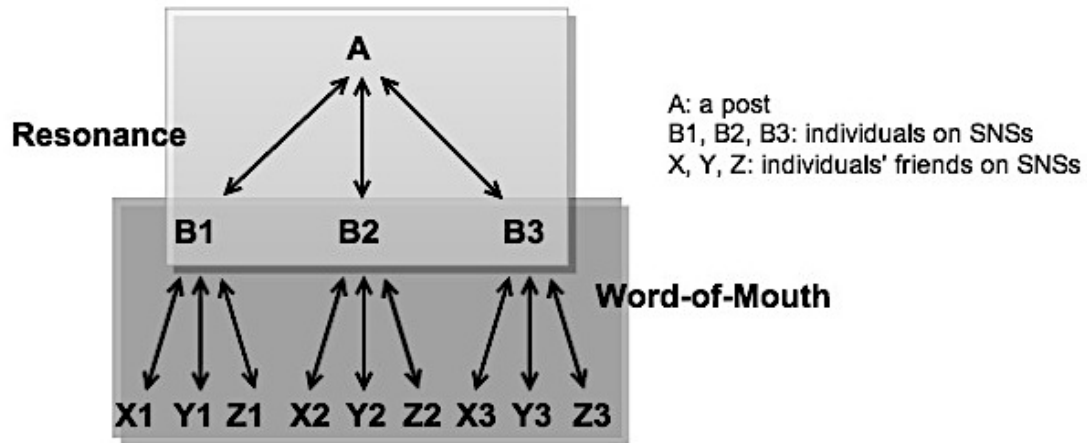


Figure 1. Differentiation between resonance and word-of-mouth

Table 1. Comparisons between resonance and word-of-mouth

Dimensions	Resonance	Word-of-mouth
Definition	Interactions between individual and a post on SNSs.	Interactions among all individuals on SNSs.
Target	A post on SNSs.	Users on SNSs.
Characteristic	<ul style="list-style-type: none"> <li>- Valence (neutral)</li> <li>- Quantitative index</li> </ul>	<ul style="list-style-type: none"> <li>- Valence (positive, negative or mixed)</li> <li>- Incidence (intention or behavior)</li> </ul>
Objective	An indicator to evaluate the success of a post.	An indicator to evaluate the social media performance.
Metrics	Number of “like” of the post, number of comments, number of reposts/ shares.	Frequency of appearances in timeline of friends, number of posts on wall, number of reposts/shares, number of responses to friend referral invites.

Based on the above perspectives, we defined resonance as the interactions such as pressing like button, sharing and replying between individuals and posts on a social

networks platform. Resonance is the phenomenon of a message going through on social media. So resonance could be seen as an indicator to evaluate the success of a post. When strong resonance occurs, messages resonate more and reach a larger audience on social media platform.

Previous researchers have used the repost rate as an indicator to evaluate the behavior of sharing about resonance on online platforms (Liand Shiu 2012). Hoffman and Fodor (2010) indicated that metrics such as the number of reposts/shares and number of responses could be seen as a performance evaluation of resonance on social networks. What is sharing and replying? Sharing is one of the functional blocks in social media and a process that exchanges, distributes, and receives information (Kietzmann et al. 2011). Sharing will lead individuals to converse and create a relationship. Moreover, sharing is a behavior of resending a message posted by another user. If a user finds an interest in a post written by another user and they want to share, they can share the message by copying the message or adding some comments (Stieglitz and Dang-Xuan 2013). This sharing behavior may represent responding to one's posting, agreeing with someone's view, or entertaining a specific audience (Stieglitz and Dang-Xuan 2013). For example, retweeting on Twitter is a mechanism of information-sharing behavior and users are more likely to retweet a tweet that has a similar viewpoint (Stieglitz and Dang-Xuan 2013). Replying is one of form of communication. People can add their opinion when they see content posted by others. It is mutual communication feedback.

Consumers who have emotional and useful benefits tend to participate in online discussions (Riegner 2007). Thus, people will reply to messages to gain more information or they may share messages to spread information. Individuals that share information with their friends enhance the resonance on network platforms because individuals select, judge and deliver information to their friends whose friend think they will like (Liand Shiu 2012). In addition, Libai et al. (2010) state that one of the most important results of customer engagement is that people are influenced directly or indirectly by engaged customers. So we want to study what factors motivate individuals to share and how those factors then affect other customers in online environments.

## **2.2 Use and Gratification**

Use and gratification (U&G) theory was proposed by Katz (1959) and developed based on the social and psychological needs that generated expectations of the media

(Chung and Austria 2010). The theory explains that people have different gratification needs that result in different patterns of media usages (Katz 1959). The most important thing is what people do with media not what media does with people (Katz 1959). In a new technology environment, there are many choices of mass communication venues such as the Internet to activate audiences to select and satisfy their needs (Ruggiero 2000). Therefore, U&G suggests that different choices of media usage are used according to peoples' needs in order to satisfy their demands. In sum, different peoples' motivations result in different media usage.

Use and gratification theory speculates that people are goal directed with regard to their needs and motivations. Social and psychological literature has indicated five categories of use and gratification needs that result in people using mass media (Katz et al. 1973; Sangwan 2005). These needs include functions of cognitive, affective, social integrative, personal integrative, and tension release (Katz et al. 1973; Sangwan 2005). Cognitive needs are related to acquiring information for knowledge or a better understanding. Affective needs are related to aesthetic, pleasurable, and emotional experiences. Social-integrative needs are related to contact with family, friends, and others. Personal-integrative needs are related to the desire for an individual to be more credible and confident of their status. Tension-release needs are related to escape.

Hirschman and Holbrook (1982) classify two dimensions that include utilitarian and hedonic value in the area of consumer consumption. Information is one of the most important dimensions in use and gratification theory for users of social networks (Bonds-Raacke and Raacke 2010). Jahn and Kunz (2012) mention that the functional and hedonic values in content play important roles for users' browsing information on social-network fan pages. Thus, cognitive needs and affective needs could be categorized into two values of content gratification here. Chu and Kim (2011) stated that social relationship-related factors are crucially related to all activities on social network platforms. The components of social relationships on a social network are tie strength, homophily, trust, and interpersonal influence (Chu and Kim 2011). Therefore, social-integrative needs are related to social-relationship gratification. Tufekci (2008) states that people participate in activities on social networks because customer behavior could be recognized as a form of self-presentation as theorized by Goffman (2002). Hence, personal-integrative needs could be seen as self-presentation gratification. Exploring customer resonance, we think that the motivation of escape in tension-released needs is not feasible. So we discard this construct and do not discuss it here. Therefore, to view customer resonance on social media, we divide it into three

dimensions of gratification: content gratification, social-relation gratification, and self-presentation gratification.

### **2.3 Content Gratification**

The most important reason that people take part in social networking is to gather information or provide information to others (Foster et al. 2010). Without the limits of online space and time, information could be offered anytime or anywhere on the social network. According to Hirschman and Holbrook (1982), consumer consumption is divided into utilitarian and hedonic by their perceived values. Hence, in the field of content area, we divide the utilitarian and hedonic function into two values delivered on the social network. For instances, people are more likely to talk about iPhone products on customer reviews online, because iPhone information is equipped with utilitarian value and hedonic value. For utilitarian information, the iPhone is easy to use, having a lot of useful functions and being portable. Discussing the iPhone may make you feel as if you are a specialist in the field of iPhones on a social network. On the other hand, the iPhone has an attractive design. If you have an iPhone and discuss it online, it might make you feel cool. Therefore, people will discuss specific topics with each other for utilitarian value as well hedonic value according to their purpose.

Utilitarian is one dimension through which to evaluate consumer attitudes (Batra and Ahtola 1991). Bloch and Richins (1983) define utilitarian value as a customer-involving process such as collecting information out of necessity rather than recreation. Utilitarian value is mostly relevant to “an errand,” “work,” or “useful” (Babin et al. 1994). It is a cognitively consumptive object that means “how useful or beneficial the object is.” Based on an information perspective, Jin et al. (2009) also define information usefulness as the degree to which information is perceived by individuals to be helpful and informative. Thus, the utilitarian value of content means how useful or beneficial the information is on social networks (Batra and Ahtola 1991). For example, individuals are more likely to talk about topics when they feel they are well informed (Mangold and Faulds 2009). Hence, we consider that when more detailed information exists, people might be more willing to discuss and share the message. Thus, the following hypothesis is developed:

H1A: The utilitarian value of content is positively related to resonance on social networks.

The other dimension through which to evaluate consumer attitudes is hedonic value (Batra and Ahtola 1991). Hirschman and Holbrook (1982) defined hedonic consumption as involving emotional arousal and feelings such as joy, jealousy, fear, rage, and rapture. It is a cognitively consumption object meaning “how pleasant and agreeable those associated feelings are.” Therefore, the hedonic value of content means how pleasant and agreeable the feelings associated with the benefits of information on social networks (Batra and Ahtola 1991).

In the online environment, content often reflect an author’s emotional state such as someone’s evaluation or judgment about a topics or product (Stieglitz and Dang-Xuan 2013). In addition, content that is fun, surprising, highly visible, with emotional attributes is more likely to promote conversation and sharing of information (Mangold and Faulds 2009). Mangold and Faulds (2009) state that people like to discuss something that they feel is outrageous or something that makes them feel special. So emotional messages are a successful factor in getting customers to pass messages along (Dobele et al. 2007). For example, Stieglitz and Dang-Xuan (2013) find that emotional Twitter messages tend to be retweeted quickly and more often than neutral messages. In other words, customers are more likely to tell others things they are emotionally connected to. In sum, researchers have suggested that emotional content is a main driver of information diffusion that results in user information-sharing behavior (Stieglitz and Dang-Xuan 2013). Thus, the following hypothesis is developed to understand the relationship between information of hedonic value on sharing and replying behavior in relation to customer resonance.

H1B: The hedonic value of content is positively related to resonance on social networks.

## **2.4 Social Relation Gratification**

Chuang and Kim (2011) developed a conceptual model of social relation that has an influence on customer engagement that includes five factors: tie strength, homophily, trust, and normative and informational-interpersonal influence are all important factors resulting in word-of-mouth behavior.

### **2.4.1 Tie Strength**

Tie strength refers to ‘the potency of the bond between members of a network’ (Mittal et al. 2008). Researchers divided strength of a relationship can be divided



strong and weak relation and users are connected not only by one type of relationship (Granovetter 1973; Kietzmann et al. 2011). Strong ties such as close friends or family means that we develop deep relationships with these people and a strong tie of social relation means that we are within an individual's personal network in order to provide substantive and emotional support (Piggand Crank 2004). On the other hand, weak ties such as acquaintances seeking information on specific topic are those that we would not develop a deep relationship with and weak ties of social relation are often among weaker and less personal social relationships (Piggand Crank 2004).

In terms of social media, relations that are associations between individuals that connect them and converse is an important function (Kietzmann et al. 2011). We can classify tie strength to strong ties and weak ties by previous research definitions of social ties on social networks (Granovetter, 1973). While customer browsing on social networks, choices of different kinds of products may be influenced by both stable and intimate "strong-tie" interactions and randomly or remotely connected "weak ties" (Chuang Kim 2011). For example, friendships on YouTube could be seen as based on users' interests and tastes (Susarla et al. 2012). Users can follow their friends or classmates to learn about their online actions. This is called a strong tie. On the other hand, users can communicate with people whose identity they may not know to acquire information. In other words, we consider that strong ties definitely have an impact between individuals or groups replying to posts from their friends, but the anonymous characteristic of weak ties on social network sites will make individuals more willing to express their opinions or share posts with their friends.

Based on strong ties and weak ties of perceived tie-strength value would motivate individuals to exchange information with one another and to expand content out, thereby creating resonance. Weak ties act as a bridge function that allows information to disseminate and propagate among people and strong ties are more likely to be activated for recommendation behavior (Chuang Kim 2011). Therefore, the following hypothesis is developed to understand the relationship between tie strength and customer resonance on social networks.

H2A: The tie strength of a social relation is positively related to resonance in a social network.

### **2.4.2 Homophily**

The definition of homophily is the degree to which individuals who interact with others have certain similar characteristics (Rogers and Bhowmik 1970). Prior research suggests that people and groups are likely to have same socio-demographic characteristics such as age, gender and race (Gilly et al. 1998). They also have and share the same attitudes and beliefs (Festinger 1962). So the connections that exist between them are often based on having similar characteristics such as attitudes or interests (Gremler et al. 2001).

In an online environment, Sheldon (2008) indicates that individuals like to find others with similar interests and with whom they feel would be a member of their community. Sometimes people spread an online message because they want to meet others who share their interests (Riegner 2007). For example, on YouTube's social network platform people who reply and share user-generated contents such as videos based on user interests could be characterized as a phenomenon of homophily between users (Susarla et al. 2012).

From the perspective of sociology, people who feel a high level of similarity tend to form relationships (Gremler et al. 2001). In addition, individuals are more likely to communicate and interact with those who share similar attributes (Mouw 2006). In other words, interpersonal communication often happens under conditions in which two individuals have similar preferences (Chuang and Kim 2011). According to the above discussion, the following hypothesis is developed to understand the relationship between homophily and customer resonance on social networks.

H2B: Homophily within a social relation is positively related to resonance in a social network.

### **2.4.3 Trust**

Trust is defined as a willingness to rely on an exchange with partners in whom one has confidence (Moorman et al. 1993). Morgan and Hunt (1994) also define trust as the perception of confidence in the exchange partner's reliability and integrity and state that trust can be seen as an important factor to maintaining successful relationships.

In an online virtual community, trust is an essential factor for individuals who take part in exchange messaging to other members (Jarvenpaa et al. 1998). In social media, reputation helps to identify the status of others and is considered a matter of

trust, referring to people and content (Kietzmann et al. 2011). The reputation of a video may be based on the “counts of views,” “ratings” or “number of comments and replies” on the YouTube platform content (Kietzmann et al. 2011). Thus trust is one factor that affects customer-engagement behavior in a customer-based relationship (Van Doorn et al. 2010).

From the users in online environments, Ridings et al. (2002) suggest that trust plays an important role in disseminating messages or exchanging information. Most individuals on social networks are relatively invisible rather face-to-face; thus, it is hard to communicate or share information. As a result, a higher level of trust will lead to a higher level of word-of-mouth behavior (De Matos and Rossi 2008). We assume that trust can create an open atmosphere in which communication and sharing are more likely to occur. Therefore, the following hypothesis is developed to understand the relationship between trust and customer resonance in social networks.

H2C: Trust within a social relation is positively related to resonance in a social network.

#### **2.4.4 Interpersonal Influence**

Interpersonal influence is an important social factor that affects customer decision-making (Chuang and Kim 2011; D’Rozario and Choudhury 2000; Park and Lessig 1977). Interpersonal influence could be classified into two dimensions: normative influences and informational influences (Bearden et al. 1989).

##### **2.4.4.1 Normative Influences**

The definition of normative influences is the idea of corresponding to expectations from others, which affects attitudes, norms and values (Burnkrant and Cousineau 1975). People who have a high level of normative influence are more likely to correspond to others’ expectations and seek others’ approval (Chuang and Kim 2011).

In the online environment, Dholakia et al. (2004) have mentioned that individuals hope to receive acceptance and approval from other members. Many individuals take part in activities to escape their loneliness, find other members who have similar interests, or obtain approval from others (Dholakia et al. 2004). For instance, people taking part in YouTube could be seen as representing a form of

normative influence because users customize their personal pages in order to obtain peer recognition from interacting with other users (Susarla et al. 2012).

From the perspective of users, Riegner (2007) mentions that people want to spread their message because their friends are talking about it. According to the studies discussed above, we consider that people who refer to a high degree of normative influence tend to communicate, reply, or share information because they want to be accepted or find others who have the same interests. Thus, the following hypothesis is developed to understand the relationship between normative influences and customer resonance on social networks.

H2D: Normative influences of a social relation are positively related to resonance in a social network.

#### **2.4.4.2 Informational Influences**

The definition of informational influence is the tendency to accept information from others and the degree to which an individual is directed to search topics, products, or brand (Bearden et al. 1989; Deutschland Gerard 1955). People who have a high level of informational influence tend to gain more social benefits such as friendship, supports, or knowledge in an online environment (Dholakia et al. 2004). In addition, Chuand Kim (2011) state that people who with a high level of informational influence are likely to obtain information and acquire useful contacts from others while they seek or decide whether to buy.

According to the above viewpoints, people who refer to a high degree of informational influence tend to communicate, reply, or share information because they want to obtain more useful information from others in social networks. The following hypothesis is developed to understand the relationship between informational influences and customer resonance on social networks.

H2E: Informational influences of social relation are positively related to resonance in a social network.

### **2.5 Self-presentation Gratification**

Self-presentation is built as identity and social performance in Goffman's theory and defined such that people want more self-assurance and personal identity in a

social environment (Jahnand Kunz 2012). People who display signs and symbols would communicate their desired impression to others (Schauand Gilly 2003).

In recent years, social networks have become popular platforms for people to express themselves on. Tufekci (2008) has found that there are many activities on a social network that can be seen as a form of self-presentation according to the theory by Goffman (2002). People are willing to talk about certain topics online when those issues may present the way they want others to see them or sustain their desired self-image to others in a social network (Kaplanand Haenlein 2010; Mangoldand Faulds 2009). With the ease of creating a personal page, individuals engaging in the YouTube platform could be seen as self-expressive to others (Susarla et al. 2012). For example, users who upload videos and make comments could be seen as engaging in a self-image on YouTube (Susarla et al. 2012). We suppose that if people have a strong intention to intensify their self-image, they communicate through talking more often, replying to posts from others, or even sharing posts or messages. Thus, the following hypothesis is developed:

H3: Self-presentation is positively related to resonance in a social network.

## **2.6 Purchase Intention**

Purchase intention is a result of pre-purchase satisfaction (Chen et al. 2010). In an online environment, consumers could be influenced by information on purchasing decisions (Mangoldand Faulds 2009). In reality, user-generated content is online information generated by customers, which is another form of word-of-mouth that would influence both an online and offline purchase (Riegner 2007). Meanwhile, a previous researcher has suggested that word-of-mouth is more likely to affect purchase intention when an item is more expensive and valuable (Riegner 2007).

Sharing action in resonance is one word-of-mouth content-creation activity that influences purchasing decisions (Riegner 2007). An example of this is the social-shopping service Groupon, which sells discounts to customers online. These types of corporate make use of mapping a user's connectivity to share discount information on a social network (Kietzmann et al. 2011). The sharing of customer behavior leads to purchase intention and then to purchase.

Form the perspective of customers, Mangoldand Faulds (2009) mention that using search information to make purchase intentions in social media is a trustworthy platform through which to obtain information about products and services. Jin et al.

(2009) state that individuals read comments or opinions posted by other users before they make a purchase intention. Therefore, user clicking Like button, replying or even sharing posts means they read information from the post when they engage in social networks. Thus, we consider that people who search and see user-generated content with higher volumes of resonance behavior such as clicking Like button, replying or sharing will lead to a higher- purchase intention. So the following hypothesis is developed:

H4: Resonance in a social network is positively related to purchase intention.



# Chapter 3 Methodology

## 3.1 Research Design

We conducted the experimental method, which is a subcategory in quantitative research to design our research. We used the online questionnaire tool - “Typeform” in virtual lab to invite the users who have experiences in using social networks sites to attend the survey. We disseminated the online questionnaire to social network platform such us Facebook, Mobile 01 and BBS. The collecting period was from March to April and we planed to collect the 400 samples. After collecting the sample, we adopt the two steps structural equation modeling approach to verify the relationships among the constructs. All details are in Table 2.

This objective of study is to describe a better understanding of what factors potentially raise resonance while participating in social-network activities and whether resonance among customers affects their intention to buy. The conceptual framework of this study is based on the use and gratification theory. We separately use content construct, the social-relation construct, and the self-presentation construct to develop the framework in which to explore customer resonance and purchase intention. The framework is examined in Figure 2.

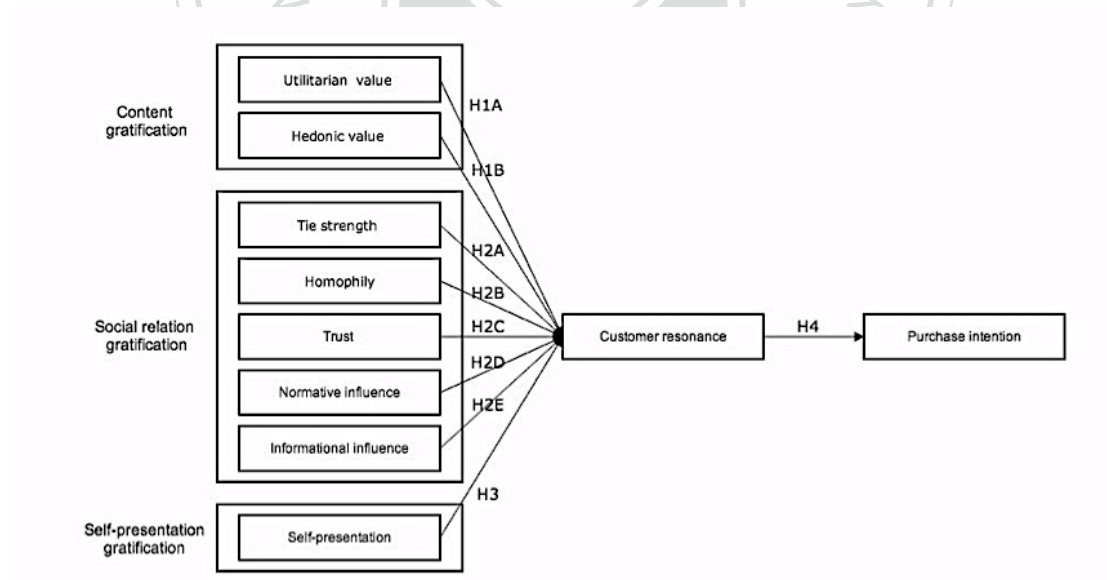


Figure 2. Constructs definition and research framework

Table 2. Research design

<b>Dimensions</b>	<b>Research design</b>
How	Adapting the experimental method research in virtual lab to disseminate the online questionnaire on SNSs.
Who	Targeting the users who have experiences in using SNSs.
Where	Social network sites such as Facebook, Mobile 01 and BBS.
When	March 2014 to April 2014.
Analysis Method	The two steps structural equation modeling approach.

### 3.2 Research variables

Customer-behavior resonance of sharing and replying on social networks is the phenomenon we want to discuss in our research. In our research model, we further explore three constructs that result in customer resonance: content, social relation and self-presentation. Content is divided into utilitarian and hedonic value. Social relation is composed of social ties, homophily, trust, normative influence, and interpersonal influence. Self-presentation is individuals' impressions that they want to convey to others. Lastly, we will discuss customer purchase intention, which is a form of customer pre-purchase satisfaction on a social network platform. Each research variable and its definition are listed in Table. 3

Table 3. Research Variables and Definitions

<b>Research Variables</b>	<b>Description</b>
Resonance	Interactions between individual and a post on SNSs.
Content gratification	Utilitarian and hedonic.
Social-relation gratification	Ties, homophily, trust, normative influence, interpersonal influence.
Self-presentation gratification	Self-presentation.
Purchase intention	Pre-purchase satisfaction.

### 3.3 Data collection

We will focus on two social media platforms that provide user-generated content in which customer can discuss new products or recommendations for product categories. The social network platforms we selected not only have user-generated



content but also comprise of many user behaviors such as like, reply of share on the platforms. We will then separately offer four kinds of questionnaires for each social network platform to customers. For each questionnaire, we will provide one type of user-generated content such as product reviews to other users who are engaged in social network platforms to browse and ask them to answer questions on the questionnaire. We assumed to collect a total of 400 questionnaires.

Out of 20 social networks platforms we selected Mobile 01 and Facebook, which all have same commonalities. First, these websites are mostly composed of user-generated content and individuals can post content anytime. Second, there are many user behaviors such as like, reply of share on the platforms. People can follower other users, make friends, reply to or share messages. Moreover, Mobile 01 is the largest platform for Chinese people to refer to product reviews. Facebook is the largest social network site platform with people sharing different kinds of products or services in the world for people to browse the product or service information. All details are shown in Table 4.

Table 4. Data Collection of Different Social Network Platforms

Social network platforms	Descriptions	Sources
Mobile 01	A social network platform that contains different kinds of product information.	<a href="http://www.moble01.com/">http://www.moble01.com/</a>
Facebook	A social network contains fanpage with people sharing different kinds of products. Users can find information about products or services by browsing fanpage.	<a href="http://www.facebook.com/">http://www.facebook.com/</a>

Questionnaires are developed to evaluate the relationships among different kinds of gratifications, customer resonance toward user-generated content, and purchase intention. For the constructs of our framework, data will be collected by online survey questionnaires according to different kinds of social network platforms and customers. The questions in the questionnaire would include five constructs. The first three are related to gratification that comprises content, social relation, and self-presentation on a social network. The next is concerned with customer-resonance behavior and the last is concerned with intention to buy on social networks.

### **3.4 Measurement**

We use multi-item scales to test the constructs in our model according to collected data from different social network platforms. Each construct is designed by adapting existing scales and modified to accommodate the research construct. The measurement of informational and hedonic value of content gratification is adapted from the scale from Jahnand Kunz (2012). The hedonic scales were also based on those designed by Babin et al. (1994). For tie strength, homophily, trust, interpersonal influence we adapted from the social-relation conceptual model via the social network from Chuand Kim (2011). Self-presentation gratification scales were based on the social-value component of customer-value framework from Jahnand Kunz (2012). Customer-resonance scales were based on Chiu et al. (2006) and this study. The measurement of purchase intention is based on the scale from Lu et al. (2010). The constructs contain several observable indicators that represent some questions on the questionnaire (see Appendix for questionnaire). All survey items are evaluated by five-point interval scales, ranging from 1 (strong disagree) to 5 (strong agree). The objectives of this study are to empirically test the hypothesized relationship between factors and resonance and resonance and purchase intention.

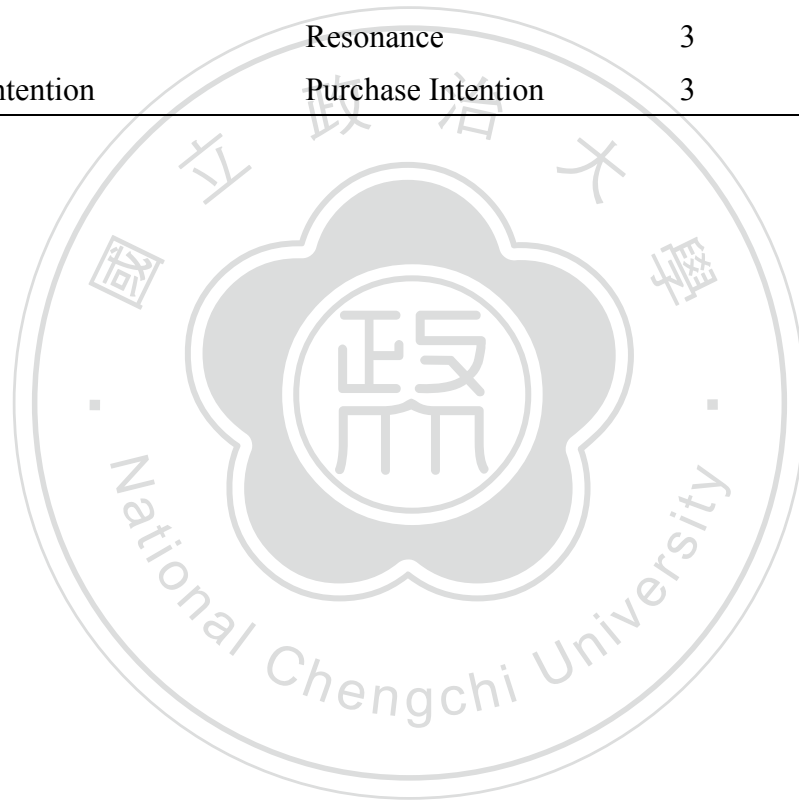
### **3.5 Data Analysis**

A two-step approach was employed to analyze the data (Anderson and Gerbing 1988). In the first phase, confirmatory factor analysis (CFA) would be performed to access the goodness of fit, composite reliability, and construct validity of the measurement model. Confirmatory factor analysis will be conducted to verify the validity and estimate the competence of the measurement model. The goodness-of-fit statistic of the proposed model will show how reasonably the model fits the data. In the second phase of the analysis, we will test the proposed hypotheses by using a structural equation model with a maximum-likelihood method to test the relationship among constructs. All constructs are estimated by SPSS 17.0 and SmartPLS.

The measures were pretested by online questionnaire with 36 graduate students, and they showed a high reliability expect for homophily in the analysis. The results of reliability are shown in Table 5. In order to meet the recommended significant level of Cronbach's  $\alpha$  test, homophily is social relation must add one more questions to satisfy the lowest level of items in each factor for customer answering questionnaire.

Table 5. Results of Pretest

Research Variables		Items	Cronbach's $\alpha$
Content Gratification	Utilitarian Value	4	0.858
	Hedonic Value	4	0.877
Social Relation Gratification	Social Tie	3	0.845
	Homophily	<b>2</b>	<b>0.698</b>
	Trust	3	0.936
	Normative Influence	3	0.746
	Informational Influence	3	0.883
Self-presentation Gratification	Self-presentation	4	0.753
Resonance	Resonance	3	0.801
Purchase Intention	Purchase Intention	3	0.842



## Chapter 4: Research Results

### 4.1 Survey Administration

We collected the data using the online questionnaire tool Typeform from March to April. A total of 410 questionnaires were collected not only from social-network sites such as Facebook, Mobile 01, and BBS Platform but also by attending activities through scanning QR codes with smartphones. Participants completed the survey either for a cash coupon or as a requirement for attending an activity. The final sample of 392 respondents that we used for the data analysis included no incomplete data. The sample comprised 42.1% males and 57.9% females, and the participants' ages mainly ranged from 21 to 30, especially for college and graduate students. As for platform experience, 29.6% of the participants were five to seven years, followed by 24.5% three to five years, and 21.7% over seven years. The results indicated that many people have rich experience in using social-network sites, and so the sample we collected was deemed to be representative of the user population on social-network sites. The demographic statistics are given in Table 6.

Table 6. Demographic Information of Respondents (N = 392)

Measure	Items	Count	%
Gender	Male	165	42.1
	Female	227	57.9
Age	>21	69	17.6
	21–30	315	80.3
	31–40	6	1.6
	<41	2	0.5
Education	High School & Below	20	5.1
	College	254	64.8
	Graduate school	118	30.1
Revenue	Less than 10,000	130	33.2
	10,001– 20,000	155	39.5
	20,001– 30,000	107	27.3
Platform Experience (in years)	Less than 1	41	10.4
	1–3	54	13.8
	3–5	96	24.5

5-7	116	29.6
<7	85	21.7

## 4.2 Model Analysis

Data analysis was performed using Partial Least Squares (PLS), which is a structural equation model to test Confirmatory Factor Analysis. In this study, the measurement model was first examined by SPSS 21.0, and then structural equation model was accessed by SmartPLS.

### 4.2.1 Measurement Model

Before testing the hypothesized relationships, we need to evaluate whether the scales achieved satisfactory levels of reliability and validity. We applied the two-step structural-equation-modeling approach because we developed the model by use and gratification theory and referred to questionnaires developed by previous researchers (Anderson and Gerbing 1988). Hence, We used confirmatory factor analysis with SmartPLS software to test our proposed model. In the first step of the measurement model, we verified the relationships such as the results of reliability and validity among observed variables. Afterward, we tested the hypothesized relationships in our proposed model in an attempt to give an explanation for the data.

As for the reliability test, we need to observe the composite reliability, Cronbach's  $\alpha$ , and individual item reliability. We used composite reliability to evaluate the internal consistency of the measurement model, and as shown in Table 7 the values of composite reliability were all above 0.7, indicating that the scale had good reliability (Nunnally et al. 1967). Cronbach's  $\alpha$  measurements for all constructs were above the recommended 0.7 level which indicated that the scale had high reliability (Nunnally et al. 1967). In addition, we undertook an individual item-reliability test to determine whether each variable was significant. As shown in Table 8, the factor loadings in each construct exceeded the correlation between the construct and other constructs. Therefore, we conclude that all constructs in the model had adequate reliability.

Table 7. Descriptive Statistics for Constructs

Research Variables		Items	CR	Cronbach's $\alpha$	AVE
Content Gratification	Utilitarian Value	4	0.89	0.83	0.67
	Hedonic Value	4	0.87	0.79	0.62
Social Relation Gratification	Social Tie	3	0.94	0.90	0.83
	Homophily	2	0.91	0.86	0.78
	Trust	3	0.95	0.92	0.87
	Normative Influence	3	0.86	0.76	0.67
Self-presentation Gratification	Informational Influence	3	0.82	0.77	0.60
	Self-Presentation	4	0.86	0.79	0.61
Resonance	Resonance	3	0.86	0.76	0.68
Purchase Intention	Purchase Intention	3	0.89	0.81	0.72

Table 8. Matrix of Individual Item Reliability

	UTI	HED	SOC	HO M	TRU	NOR	INF	SEL	RES	PUR
A11	0.75	0.28	0.05	0.26	0.04	0.15	0.19	0.16	0.16	0.31
A12	0.83	0.25	0.12	0.19	0.03	0.11	0.20	0.08	0.22	0.28
A13	0.88	0.22	0.14	0.22	0.07	0.13	0.16	0.15	0.25	0.26
A14	0.80	0.25	0.07	0.26	0.08	0.23	0.11	0.16	0.18	0.30
A21	0.23	0.80	0.06	0.08	-0.04	0.11	0.07	0.05	0.14	0.13
A22	0.21	0.83	0.01	0.20	0.05	0.33	0.10	0.12	0.18	0.24
A23	0.26	0.81	0.00	0.17	0.07	0.30	0.09	0.14	0.15	0.25
A24	0.25	0.80	0.02	0.23	0.08	0.38	0.15	0.16	0.16	0.24
B11	0.12	0.04	0.91	0.13	0.64	0.13	0.20	0.25	0.35	0.13
B12	0.12	0.01	0.93	0.11	0.59	0.16	0.16	0.28	0.34	0.07
B13	0.09	0.03	0.91	0.13	0.64	0.18	0.17	0.24	0.31	0.13
B21	0.20	0.19	0.15	0.88	0.19	0.23	0.14	0.29	0.19	0.24
B22	0.27	0.19	0.13	0.89	0.16	0.21	0.11	0.27	0.16	0.26
B23	0.26	0.21	0.08	0.88	0.17	0.29	0.14	0.30	0.18	0.30
B31	0.03	0.01	0.62	0.14	0.92	0.24	0.16	0.21	0.28	0.15
B32	0.07	0.06	0.66	0.20	0.94	0.28	0.18	0.26	0.31	0.20

B33	0.09	0.08	0.63	0.20	0.93	0.36	0.15	0.25	0.32	0.22
B41	0.16	0.26	0.19	0.19	0.34	0.81	0.27	0.28	0.29	0.27
B42	0.12	0.30	0.14	0.24	0.25	0.87	0.19	0.28	0.30	0.26
B43	0.18	0.35	0.08	0.26	0.16	0.78	0.26	0.21	0.20	0.25
B51	0.14	0.09	0.18	0.08	0.15	0.23	0.81	0.11	0.21	0.14
B52	0.16	0.08	0.12	0.15	0.11	0.23	0.77	0.15	0.15	0.17
B53	0.18	0.14	0.15	0.13	0.15	0.21	0.75	0.09	0.19	0.20
C1	0.14	0.13	0.34	0.30	0.29	0.19	0.11	0.78	0.30	0.27
C2	0.17	0.07	0.16	0.21	0.12	0.19	0.10	0.78	0.25	0.22
C3	0.07	0.07	0.19	0.22	0.19	0.27	0.10	0.80	0.25	0.22
C4	0.14	0.21	0.18	0.27	0.20	0.36	0.14	0.76	0.25	0.22
D1	0.17	0.16	0.34	0.15	0.26	0.13	0.06	0.24	0.76	0.29
D2	0.18	0.12	0.26	0.14	0.27	0.32	0.22	0.28	0.84	0.31
D3	0.26	0.21	0.30	0.20	0.28	0.34	0.28	0.31	0.87	0.37
E1	0.29	0.15	0.17	0.23	0.19	0.20	0.22	0.27	0.32	0.81
E2	0.30	0.27	-0.01	0.23	0.10	0.30	0.13	0.26	0.31	0.85
E3	0.29	0.28	0.13	0.30	0.23	0.30	0.20	0.24	0.37	0.88

As for the validity test, we needed to test the convergent validity and discriminant validity. Convergent validity examined the items of scales related to each other in reality and was verified by examining the composite reliability (CR) and the average variance extracted (AVE). Acceptable values of CR and AVE should be greater than 0.7 and 0.5, respectively (Fornell and Larcker 1987). As Table 7 shows, all CR and AVE values of the items meet the recommended requirements. Discriminant validity measured whether a construct is different from other constructs. It was used to determine whether the square root of average variance extracted for each construct should exceed the correlations between this construct and other constructs (Fornell and Larcker 1987). The results are shown in Table 9. The square root of average variance extracted for each construct surpasses the correlation between the constructs and all other constructs, demonstrating adequate discriminant validity.

Table 9. Correlation Matrix of Key Construct

	UTI	HED	SOC	HOM	TRU	NOR	INF	SEL	RES	PUR
UTI	0.82									
HED	0.30	0.79								
SOC	0.12	0.03	0.91							
HOM	0.28	0.22	0.14	0.88						
TRU	0.07	0.06	0.68	0.19	0.93					
NOR	0.18	0.36	0.17	0.28	0.32	0.82				
INF	0.20	0.13	0.19	0.15	0.18	0.29	0.78			
SEL	0.17	0.15	0.28	0.33	0.26	0.32	0.15	0.78		
RES	0.25	0.20	0.36	0.20	0.33	0.33	0.24	0.34	0.82	
PUR	0.35	0.28	0.12	0.30	0.21	0.32	0.22	0.30	0.39	0.85

#### 4.2.2 Structural Model

The examination of the structural model consists of estimating the path coefficients, which represent the strengths of the relationships among all constructs, and the R-squared values, which stand for the amount of variance in dependent variables. In addition, Gender was our control variable representing purchase intention in our research model. We tested the proposed hypotheses using a structural-equation model, and the results of the assessment with the overall explanatory power, the estimated path coefficients, and the associated t-values of the path are shown in Figure 3 and Table 10. The R-squared correlation for customer resonance is 0.575, which is reasonable since we assumed that all constructs were influence factors for customer resonance. Also, the R-squared correlation for purchase intention was 0.468, which indicated that customer resonance is an influential factor for purchase intention after the control variable is added.

Hence, both the path coefficients—including the loadings and the significance levels—and the R-squared values demonstrate how well the data validate the research model.

As shown in Table 8, purchase intention was explained by resonance (Beta = 0.5887 and  $p < 0.001$ ), providing support for Hypothesis 9. Resonance was also explained by self-presentation (Beta = 0.3593 and  $p < 0.001$ ), informational influence (Beta = 0.199 and  $p < 0.05$ ), normative influence (Beta = 0.2627 and  $p < 0.01$ ), social ties (Beta = 0.319 and  $p < 0.001$ ), and utilitarian value in UGC (Beta = 0.3108 and  $p <$



0.001). All coefficients of our proposed processing model except three were significant ( $p < 0.05$ ). Surprisingly, the hedonic value in UGC, homophily, and trust had no significant influence on resonance. Thus, we can show that different motivations will influence customer resonance according to U&G theory.

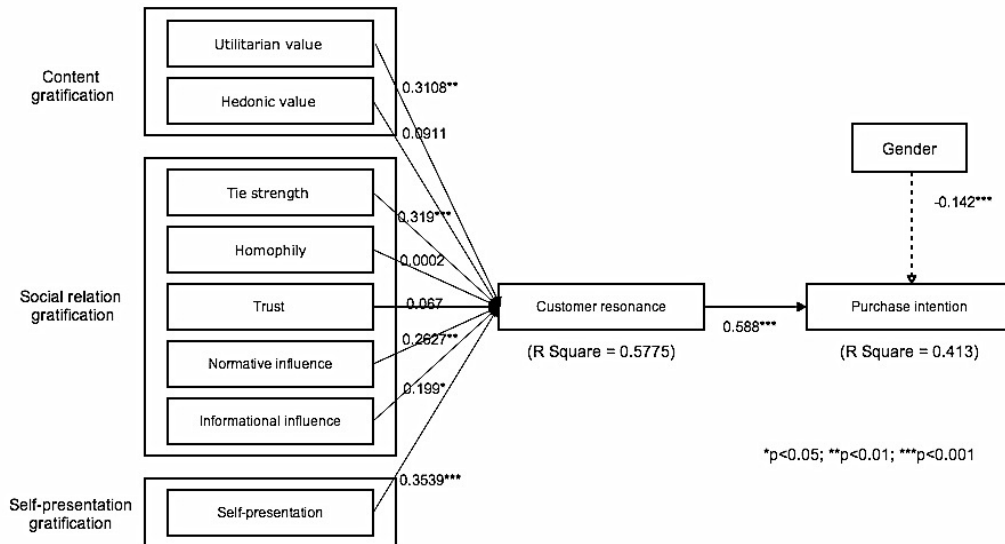


Figure 3. PLS Research Results of Research model

Table 10. Structural Equation Model Statistical Results of Research Model

Path	Beta	T Statistics	R-squared	Support
H1: Utilitarian Value ->Resonance	0.31**	2.72**		Yes
H2: Hedonic Value ->Resonance	0.09	1.39		No
H3: Social Tie ->Resonance	0.32***	3.42***		Yes
H4: Homophily ->Resonance	0.00	0.00		No
H5: Trust Value ->Resonance	0.06	0.97	0.58	No
H6: Normative Influence ->Resonance	0.26**	2.95**		Yes
H7: Information Influence ->Resonance	0.19*	1.98*		Yes
H8: Self-presentation ->Resonance	0.35***	3.55***		Yes
H9: Resonance ->Purchase Intention	0.59***	7.48***	0.41	Yes

Standard errors in parentheses. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

### 4.3 Cluster Analysis

Cluster analysis was performed using a two-stage cluster-analysis technique to derive content gratification, social-relation gratification and social gratification. Groups and clusters were formed using Ward’s method, followed by a K-means procedure to decide the adequate attributes of clusters. Finally, we will discuss the results of each cluster.

#### 4.3.1 Cluster Method

We adapted the two-stage clustering approach to conduct the cluster analysis by using SPSS 21.0 software for our model. First, we used hierarchical clustering and Ward’s clustering method to decide the best number of clusters. The hierarchical clustering connects objects to form clusters based on their distance, and the Ward method is a hierarchical agglomerative technique that is used to identify the initial cluster solution. There are the means of each factor, and the best number of clustering is two. The Clustering results are shown in Table 11.

Table 11. Clustering results by hierarchical clustering method

Cluster	1	2	3	4	5
Agglomeration coefficient	8229.80	7199.15	6768.25	6471.41	6213.42
Change Rate	14.3%	6.36%	4.58%	4.15%	

The cluster seeds formed by the Ward solution were submitted to a K-means procedure, which is an iterative partitioning technique that is used to group the data until the optimal solution is found. We used the K-means method to partition the input data set into two clusters according to the result of hierarchical clustering. We also conducted a t-test to identify the degree of resonance by different types of resonance dimensions using mean scores in three resonance-behavior dimensions. We separately labeled each cluster based on the results of resonance. Cluster A was labeled “high status” in resonance because the individuals in this cluster were more likely to engage in resonance behavior such as “like,” “reply,” and “share.” On the other hand, cluster B was labeled “low status” due to low scores on resonance. The results of each mean are shown in Table 12. As you can see, the amount in cluster A is more than in cluster B.

Table 12. t-Test of Resonance in Dimensions

Cluster	Factors			Total Number
	Like	Reply	Share	
Cluster A	4.2	3.6	4	High Resonance (207)
Cluster B	3.4	2.7	2.9	Low Resonance (185)
T Values	20.8	19.3	23.27	
Difference of Mean	A > B	A > B	A > B	

### 4.3.2 Cluster Results

The t-test results demonstrate that users in social networks have different levels of content gratification, social-relation gratification and self-presentation gratification. As can be seen in Tables 13–15, low-resonance clustering, in contrast to high-resonance clustering, has high degrees of homophily and trust ( $t = -11.5$ ,  $A < B$ ). On the other hand, high-resonance clustering is characterized by high degrees of content gratification, self-presentation gratification, and purchase intention.

Table 13. t-Test of Two Clustered Groups on Content Gratification

Cluster	Factors	
	Content Gratification	
	Utilitarian Value	Hedonic Value
Cluster A	3.58	4.02
Cluster B	2.69	3.95
T values	17	9.3
Difference of Mean	A > B	A > B

Table 14. t-Test of Two Clustered Groups on Social-Relation Gratification

Cluster	Factors				
	Social-Relation Gratification				
	Social Tie	Homophily	Trust	Normative Influence	Information Influence
Cluster A	2.19	3.19	3.52	4.09	4.27
Cluster B	1.23	3.52	3.74	3.58	3.84
T Values	19.584	-12.05	-11.05	15.516	14.105
Difference of Mean	A > B	A < B	A < B	A > B	A > B

Table 15. t-Test of Two Clustered Groups on Self-Presentation Gratification and Purchase Intention

Cluster	Factors	
	Self-Presentation Gratification Self-Presentation	Purchase Intention Purchase Intention
Cluster A	3.99	4.1
Cluster B	3.62	3.42
T Values	13.01	16.006
Difference of Mean	A > B	A > B

After deciding the cluster of resonance, we separately applied the structural equation model to test the relationship in high resonance clustering and low resonance clustering to decide the dominated factors. All details are shown in Table 16. In high resonance cluster, all factors in gratifications are significant expect for homophily. Resonance is significantly related to purchase intention. Besides, the most significant variables to cause resonance are self-presentation, utilitarian value in content gratification and social tie in social relation gratification. On the other hand in low resonance cluster, all factors in gratifications are significant expect for hedonic value in content gratification, homophily in social relation gratification and trust in social relation gratification. The results of clustering results by structural equation model are same with the structural equation model statistical results of research model.

Table 16. SEM Statistical Results of High Resonance Clustering

Path	Beta	T Statistics	R-squared	Support
H1: Utilitarian Value ->Resonance	0.36***	4.02***		Yes
H2: Hedonic Value ->Resonance	0.11*	1.78*		Yes
H3: Social Tie ->Resonance	0.28***	3.83***		Yes
H4: Homophily ->Resonance	0.07	0.02	0.67	No
H5: Trust Value ->Resonance	0.08*	1.56*		Yes
H6: Normative Influence ->Resonance	0.21**	2.02**		Yes
H7: Information Influence ->Resonance	0.16*	2.00*		Yes
H8: Self-presentation ->Resonance	0.42***	4.51***		Yes
H9: Resonance ->Purchase Intention	0.67***	8.74***	0.46	Yes

Standard errors in parentheses. \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

Table 17. SEM Statistical Results of Low Resonance Clustering

Path	Beta	T Statistics	R-squared	Support
H1: Utilitarian Value ->Resonance	0.11*	1.18**		Yes
H2: Hedonic Value ->Resonance	0.03	0.01		No
H3: Social Tie ->Resonance	0.34***	3.77***		Yes
H4: Homophily ->Resonance	0.00	0.00	0.48	No
H5: Trust Value ->Resonance	0.00	0.00		No
H6: Normative Influence ->Resonance	0.17**	2.27**		Yes
H7: Information Influence ->Resonance	0.11*	1.13*		Yes
H8: Self-presentation ->Resonance	0.28**	3.19**		Yes
H9: Resonance ->Purchase Intention	0.46***	7.22***	0.39	Yes

Standard errors in parentheses. \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

### 4.3.3 Analysis Matrix of Demographic Information in Clustering

To examine the meaningfulness of the cluster solution, we used demographic information to see whether differences existed between the two clusters on gender and platform experiences. We used cross-table testing by SPSS 21.0 to verify whether there is a relation between the row variable and the column variable. Cross-table is a two-way table consisting of columns and rows to analyze categorical data. The cells of the table would report the frequency counts and percentages for the number of respondents in each cell.

#### 4.3.3.1 Comparison and Differentiation of Clusters Based on Gender

After conducting the cross-table testing on different types of clusters, we found that there were significant differences among the clusters. Comparisons between two clusters revealed that the percentages of males and females are different. As for the high status of resonance clustering, we found that the percentage of females was larger than that of males. On the other hand, we found that the percentages of males were a little higher than females in low-status clusters of resonance. The results are shown in Table 18.

Table 18. Describing Resonance Clustering of Demographic in Gender Information

Clustering	Male	Female	Total Number
Cluster A	76 (46.1%)	131 (57.7%)	207 (52.8%)
Cluster B	89 (53.9%)	96 (42.3%)	185 (47.2%)
Total Number	165 (100%)	227 (100%)	392 (100%)

#### 4.3.3.2 Comparison and Differentiation of Clusters Based on Platform Experience

We also tested the platform experience on clustering by cross table to examine the whether there are different types of pattern in each clustering. Surprisingly, there exists an interesting phenomenon. Compared with low-resonance clustering, respondents showed whether they have much richer experience or less experience in using social network platforms in high status of resonance clustering. As for low status cluster, respondents presented an average status from 1 year to 5 years. All results are shown in Table 19.

Table 19. Describing Resonance Clustering of Demographics in Platform Experience Information

Clustering	Less than 1	1–3 years	3–5 years	5–7 years	Over 7 years	Total
Cluster A	27 (65.9%)	13 (24.1%)	30 (31.3%)	75 (64.7%)	62 (72.9%)	207 (52.8%)
Cluster B	14 (34.1%)	41 (75.9%)	66 (68.7%)	41 (35.3%)	23 (27.1%)	185 (47.2%)
Total Number	41 (100%)	54 (100%)	96 (100%)	116 (100%)	85 (100%)	392 (100%)

#### 4.3.3.3 Comparison and Differentiation of Clusters Based on Revenue

We also used the cross-table analysis to test the effect of demographic revenue information on clustering. Compared with a high degree of resonance, we found people who have high revenue are not likely to engage in resonance behavior. On the other hand, people who have low revenue are likely to engage in resonance behavior on social-network platforms. All results are shown in Table 20.

Table 20. Describing the Demographics of Resonance Clustering Based on Revenue

Clustering	Less than \$10,000	\$10,001– \$20,000	Over \$20,001	Total
Cluster A	72 (55.4%)	91 (58.7%)	44 (41.1%)	207 (52.8%)
Cluster B	58 (44.6%)	64 (41.3%)	63 (58.9%)	185 (47.2%)
Total	130 (100%)	155 (100%)	107 (100%)	392 (100%)

All chi square test of demographic variables on resonance is shown in Table 21. All demographic variables in resonance clustering are significant.

Table 21. The effect of demographic variables on resonance by Chi Square test

Variables	Pearson Chi-Square	DF	Asymp. Sig. (Two-sided)
Gender	12.04	2	0.005
Platform experience	16.25	8	0.000
Revenue	14.82	8	0.000

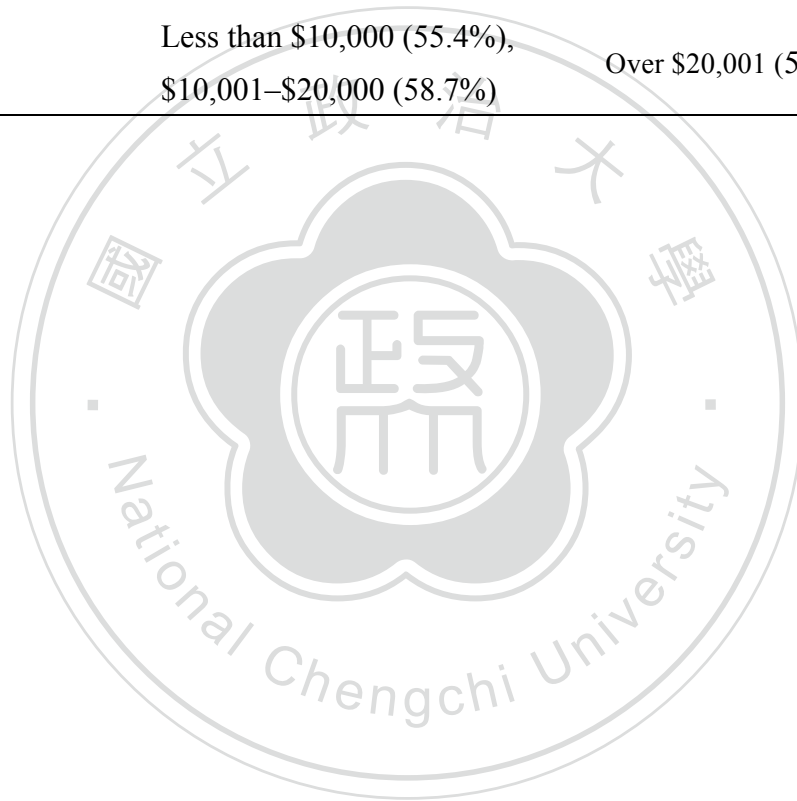
Standard errors in parentheses. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

#### 4.4 Summary Results

This paper sought to investigate the motivations behind resonance and purchase intention by adapting the use and gratification theory with different constructs. In particular, this paper explored the constructs of content, social relations, and self-presentation to arising resonance on social networks. In addition, this paper also investigated whether resonance has an influence on purchase intention. Finally, the research model and proposed hypotheses were empirically validated by an online survey in social-network sites. The results show that the measurement model was validated with adequate levels of reliability and validity tests. The results also provide sufficient support to the research model. Also, we partitioned the data set into two clusters and labeled them according to the degree of resonance. The summary of the clustering is shown below in Table 22. Finally, we analyzed the clustering based on demographic information, platform experience, and revenue.

Table 22. Summary Results in Clustering

Clustering		Cluster A	Cluster B
		High Status in Resonance	Low Status in Resonance
Dominant Variables		Self-presentation, utilitarian value in content, social tie	Social tie, self-presentation and normative influence
Gender	Male	46.1%	53.9%
	Female	57.7%	42.3%
Platform Experience		Less than 1 (65.9%), 5–7years (64.7%), Over 7 years (72.9%)	1–3 years (75.9%), 3–5years (68.7%)
Revenue		Less than \$10,000 (55.4%), \$10,001–\$20,000 (58.7%)	Over \$20,001 (58.9%)





## Chapter 5 Discussion

### 5.1 Overview of Research Finding

In our study, we detected various influential factors affecting customer resonance on social networks and analyzed customer resonance by different types of user behavior based on demographic information for customer relationship management. As for resonance on social-network platforms, the research results indicated that all gratifications such as self-presentation, strength of social ties, and utilitarian value of user-generated content are strongly related to customer resonance. In addition, we also found that customer resonance is significantly related to purchase intention. Then we explained the clustering of resonance on different types of attributes. Finally, we investigated the clustering results based on management issues.

### 5.2 Influence of Social-Network Sites on Customer Resonance

The results of the structural-equation model showed that factors in each gratification construct are related to customer resonance on the social-network sites. The constructs in our model are content gratification, social-relation gratification, and self-presentation gratification. We separately explain each factor in the constructs and its numerical results obtained by using statistical software.

In content gratification, the utilitarian value of content has a significant effect on resonance, but hedonic value does not. The possible explanation is that people may spend some time browsing user-generated content when they obtain some useful information, and they will have more willingness to share the posts. One of the reasons for users to share their posts is to enrich others' lives. On the other hand, the hedonic value of content does not have a significant influence on resonance. The possible explanation is that people sharing the posts is not only for positive feelings but also for negative feelings. As long as the post can arise the strong feedback after people browsing the post, people will do resonance behaviors on post.

In social-relation gratification, the tie strength, normative influence, and information influence have significant impacts on customer resonance. As for tie strength, our data analysis showed that people have more willingness to express resonance behavior such as replying to posts in environments of strong social ties. With regard to normative influence, it is an important factor to make resonance behavior happen on social-network sites because people desire to obtain recommendations from others (Dholakia et al. 2004). These demands often dominate

our actions, opinions, and decisions. For example, we tend to like a post from others after we see the post liked by others because it will make us conform with others. As for informational influences, people tend to comment on a post in order to obtain more information when resonance has happened. On the other hand, homophily and trust in social-relation gratification are not influence factors on resonance. With regard to homophily, it is an important factor for people engaging in virtual community because people like to interact with others who have certain similar characteristics. However, homophily don't have directly impact on doing resonance behaviors between individual and a post. People will comment or share the post whether the post have similar characteristics with individuals. It is possible for people to do resonance behaviors on the condition people agree with the post or not agree with post. As for trust, it doesn't have effect to arising resonance on social network sites. Traditionally, trust is an important factor when people engage in e-commerce website since individuals are relatively invisible than face-to-face interaction on networks. Trust can create a reliable atmosphere in e-commerce platform and played a major factor for people especially in exchanging benefit. People have more willingness to do transaction because of the exchange of benefit between individuals on e-commerce platform. However, trust is not a key factor to arise resonance on the social network sites because it doesn't involve exchanging benefit between individual and the post.

In self-presentation gratification, the construct of self-presentation is significantly related to customer resonance because this is another space for users to manage their images. User behavior such as liking, replying, and sharing may represent their image. For example, people will share a post related to travel information in order to create an image of themselves as people who like traveling. Hence, we will like a post, comment on posts, or share posts in order to present our identities to others.

### **5.3 Effects of Clustering on Customer Resonance**

We partitioned the data into two clustering and labeled each clustering based on the degree of resonance. Cluster A is labeled as having a high status of resonance, indicating that people have more willingness to engage in resonance behavior such as liking a post, replying to the content, or sharing the information. In addition, people are greatly influenced by self-presentation, utilitarian value of content and social tie. In this cluster, the percentage of female is higher than that of males, and they mainly

have low revenue. Lastly, the phenomenon of using platform experience is whether in rich experience in using platform or not rich experience in using platform.

On the other hand, cluster B is labeled as having a low status of resonance, which represents people who are not likely to engage in resonance behavior on social-network platform sites. Also, the three highest values separately are social tie, self-presentation and normative influence, indicating that people are in high degree of social relation in environments of social network platforms. In the cluster, the percentage of males is much greater than the percentage of female, and has high revenue compared with high-resonance clustering. Finally, the platform experiences in using social-network sites are mainly from 1 year to 5 years.

From the perspectives of two clustering, we found that the social tie and self-presentation play an important factor regardless in high resonance clustering and low resonance clustering. Besides, we also realized that homophily doesn't have influence on resonance because homophily are not significant neither on low degree of homophily in high resonance nor high degree of homophily in low resonance. The phenomenon of trust is same with homophily in our research findings. In conclusion, we can summarize that high resonance clustering mainly focus on self-presentation gratification, content gratification and social relation gratification. On the other hand, the low resonance clustering mainly focus on self-presentation gratification and social relation gratification.

## Chapter 6 Conclusions and Limitations

### 6.1 Summary

The purpose of our study was to explore the resonance phenomenon on social-network sites because social media have changed user behavior with new ways of interactive communication and marketers regarded the social media as an increasing important tool to marketing. We proposed the two research questions and the main findings are summarized and discussed. First is what effects do customer resonance have on purchase intention. Second is what factors may have influence on customer resonance in social-network sites. For the first question, we proved that customer resonance directly have influence on purchase intention, indicating that marketer can generate customer resonance to arise their purchase intention. Hence, the more resonance happened, the more purchase intention people have. For the second question, we want to explore what reasons make resonance happened on the premise of higher purchase intention. We separately investigate the content gratification, social relation gratification and self-presentation gratification on resonance. We found that the utilitarian value of UGC and social tie have more influence on customer resonance. Besides, we also found that normative influence, information influence and self-presentation have impact on customer resonance. We can design or improve the way of marketing according to different type of factors to generate customer resonance. On the other hand, the hedonic value of content, homophily and trust are not directly impacted on customer resonance. We can adapt alternative way to make people do resonance behavior. Considering thesis results, we can infer multiple implications for the management of user activities on the social-network sites. We separately explained in different gratifications and clustering of resonance.

Fist for content gratification, we found the utilitarian value of content is more significant than the hedonic value of content, indicating that the more practical value of post, people have more willingness to like or share. As a managerial implication, marketer should create the useful information such as how to solve to answer their questions or simply complex concept to make people easy to read. Concerning hedonic value in UGC, marketer could create content about arising strong feedback such as pleasant, surprise or sorrow, but make sure to target the right customer in advance. Moreover, despite creating UGC about arising some strong feedback,

marketer could create some memorable story to stand on customers' feet to make them easy to recall rather than giving product information directly.

Second for social relation gratification, there is more probability to arise resonance behavior when people in strong tie relationship. Marketer can advertise products or services based on the nature of social-network site, which especially needed to be verified by real, identify. For normative influence, marketer can design the share button or amount of sharing more distinct for users to more easily obtain others' approval. For information influences, marketer can design the Q&A button or improve the rank of search engine to make people easily search. For homophily in social relation, marketer can create some popular topics and some posts to make people discuss or dispute, so people will continue to comment on the topics when resonance happened.

Third for self-presentation gratification, marketer can create the content related to customers, for example, marketer should create the topic of IT knowledge if the users are information technology or computer science background. The reason is that people will share information representing themselves. Besides, marketer can create contents that make customer feel better.

At last for different clustering of resonance, we divided the resonance into two clustering based on significant t values of resonance behaviors. Businesses can correspondence their target marketing groups with our results depended on the attribute in this study. Marketer can put more emphasis on the perspective of self-presentation and social tie when they marketing according to our research results. As for clustering of high resonance, business can stress on utilitarian value of content, strong tie and self-presentation. On the other hand, marketer can emphasize on social relation gratification and self-presentation in clustering of low resonance. As last, homophily and trust are not significant on resonance in our research. The clustering research results are corresponded to the structural equation model statistical results of research model. Hence, marketer doesn't consider the characteristics of the post are same with the users on social network sites. Marketer can advertise some posts to make people discuss or dispute on social network sites to make post more resonated. Lastly, trust is no more the key factor to arise resonance on social network sites because there isn't having exchange of benefit between an individual and a post.

In sum, resonance is a complex phenomenon. Individual decide when to like the posts, reply or share the content based on the aspect on human psychology, characteristic of social-network sites and the content. Therefore, there are many

managerial methods to operate the business activity based on different types of gratification. Marketers can categorize their target customers by referring our research results. These findings will give the business a hit to know how to operate their marketing activities well.

## **6.2 Research Limitations and Direction for Future Study**

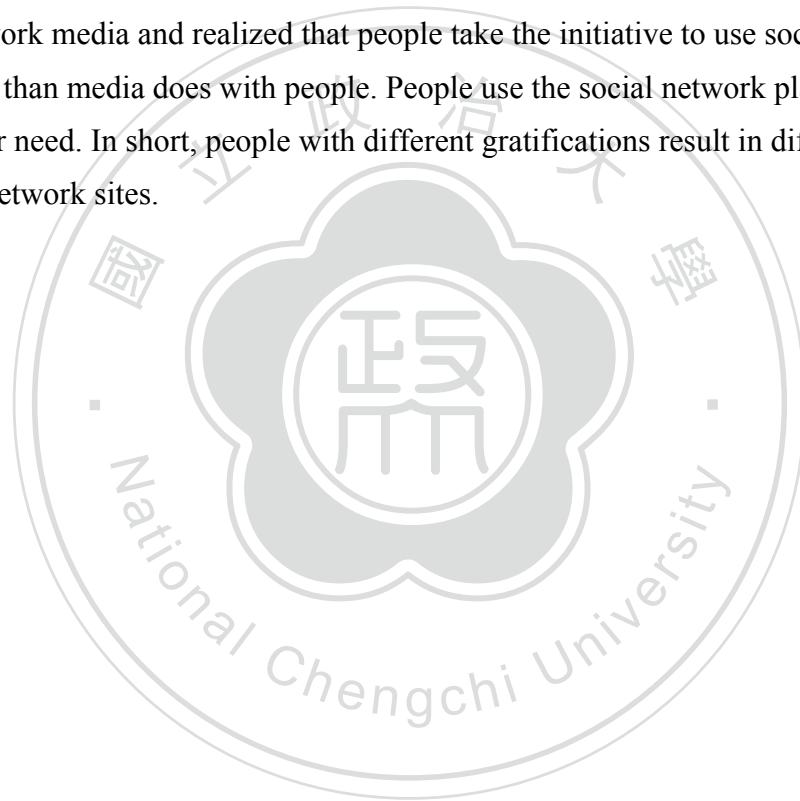
We believe our study has interesting implications, but we are aware about its limitations. We investigated the data collection and data analysis. As for data collection, we separately explored selected content, respondents and sample size. First, the sample of the content we randomly selected from the social-network sites should be widely dispersed in category. We can observe the data results from different field of consuming products (ex: clothing, beverage, expensive products and so on). Besides, the content we selected should be more distinguished because the respondents have different feeling after browsing the content despite of the same content. The results of research will be more significant if the characteristics of contents we selected are more distinct. Second, the amount of gender of the respondents should be equal. In our collection data, the females of respondent are higher than males around 15 percentages. We think the demographic information is a worthy issue to study. Third, the amount of collecting sample would be up to 600. As for data analysis, the amount of clustering should be increased because there are varieties in the resonance results in real word.

Hence, the future research should extend the current framework and investigate more variables into the constructs of direct and moderating effects of resonance (ex: the feelings of respondent, the relevance between author and respondent). Also, other types of hedonic value of posting in content gratification should be further researched as different types of feelings (ex: surprise, joy, sadness, anger, disgust and fear). In sum, it might be an interesting topic to for business to look for best practice to operate the customer relationship management well.

## **6.3 Research Contributions**

There are four contributions in this research. First, we applied the use and gratification theory in resonance phenomenon to discuss that different type of gratifications have influence on customer resonance on social-network sites. We use the U&G theory to observe the customer resonance phenomenon and realized that people with different needs result in different pattern of media usage when resonance

happened. In sum, different people motivations of using social network result in different resonance behaviors. Second, resonance phenomenon we observed in this research significantly has impact on purchase intention, indicating that the more resonance is, and the more purchase intention. Therefore, marketer can refer our research result to organize the marketing activities based on different types of factors to appeal customer' purchase intention. Third, we found that trust and homophily don't have influence on resonance on social network sites. In the past, most of literature indicated that trust and homophily play important factors to maintain the atmosphere in online e-commerce platform or virtual website because of the exchange of benefit between individuals. Forth, we applied the use and gratification theory in social network media and realized that people take the initiative to use social-network sites rather than media does with people. People use the social network platforms to satisfy their need. In short, people with different gratifications result in different usage on social-network sites.



## Reference

- Anderson, J. C., and Gerbing, D. W. 1988. "Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach," *Psychological bulletin* (103:3), p 411.
- Babin, B. J., Darden, W. R., and Griffin, M. 1994. "Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value," *Journal of consumer research*), pp 644-656.
- Batra, R., and Ahtola, O. T. 1991. "Measuring the Hedonic and Utilitarian Sources of Consumer Attitudes," *Marketing letters* (2:2), pp 159-170.
- Bearden, W. O., Netemeyer, R. G., and Teel, J. E. 1989. "Measurement of Consumer Susceptibility to Interpersonal Influence," *Journal of consumer research*), pp 473-481.
- Bloch, P. H., and Richins, M. L. 1983. "A Theoretical Model for the Study of Product Importance Perceptions," *The Journal of Marketing*), pp 69-81.
- Bonds-Raacke, J., and Raacke, J. 2010. "Myspace and Facebook: Identifying Dimensions of Uses and Gratifications for Friend Networking Sites," *Individual Differences Research* (8:1), pp 27-33.
- Burnkrant, R. E., and Cousineau, A. 1975. "Informational and Normative Social Influence in Buyer Behavior," *Journal of Consumer research*), pp 206-215.
- Chen, Y.-H., Hsu, I., and Lin, C.-C. 2010. "Website Attributes That Increase Consumer Purchase Intention: A Conjoint Analysis," *Journal of Business Research* (63:9), pp 1007-1014.
- Chiu, C.-M., Hsu, M.-H., and Wang, E. T. 2006. "Understanding Knowledge Sharing in Virtual Communities: An Integration of Social Capital and Social Cognitive Theories," *Decision support systems* (42:3), pp 1872-1888.
- Chu, S. C., and Kim, Y. 2011. "Determinants of Consumer Engagement in Electronic Word-of-Mouth (Ewom) in Social Networking Sites," *International Journal of Advertising* (30:1), pp 47-75.
- Chung, C., and Austria, K. 2010. "Social Media Gratification and Attitude toward Social Media Marketing Messages: A Study of the Effect of Social Media Marketing Messages on Online Shopping Value," *Proceedings of the Northeast Business & Economics Association*).
- D'Rozario, D., and Choudhury, P. K. 2000. "Effect of Assimilation on Consumer Susceptibility to Interpersonal Influence," *Journal of Consumer Marketing* (17:4), pp 290-307.



- De Matos, C. A., and Rossi, C. A. V. 2008. "Word-of-Mouth Communications in Marketing: A Meta-Analytic Review of the Antecedents and Moderators," *Journal of the Academy of Marketing Science* (36:4), pp 578-596.
- Deutsch, M., and Gerard, H. B. 1955. "A Study of Normative and Informational Social Influences Upon Individual Judgment," *The journal of abnormal and social psychology* (51:3), p 629.
- Dholakia, U. M., Bagozzi, R. P., and Pearo, L. K. 2004. "A Social Influence Model of Consumer Participation in Network-and Small-Group-Based Virtual Communities," *International journal of research in marketing* (21:3), pp 241-263.
- Dobele, A., Lindgreen, A., Beverland, M., Vanhamme, J., and Van Wijk, R. 2007. "Why Pass on Viral Messages? Because They Connect Emotionally," *Business Horizons* (50:4), pp 291-304.
- Festinger, L. 1962. *A Theory of Cognitive Dissonance*, (Stanford university press.
- Fornell, C., and Larcker, D. 1987. "A Second Generation of Multivariate Analysis: Classification of Methods and Implications for Marketing Research," *Review of marketing* (87), pp 407-450.
- Foster, M. K., Francescucci, A., and West, B. C. 2010. "Why Users Participate in Online Social Networks," *International Journal of e-Business Management* (4:1), p 3.
- Gilly, M. C., Graham, J. L., Wolfinbarger, M. F., and Yale, L. J. 1998. "A Dyadic Study of Interpersonal Information Search," *Journal of the Academy of Marketing Science* (26:2), pp 83-100.
- Goffman, E. 2002. "The Presentation of Self in Everyday Life. 1959," *Garden City, NY*).
- Goh, K.-Y., Heng, C.-S., and Lin, Z. 2013. "Social Media Brand Community and Consumer Behavior: Quantifying the Relative Impact of User-and Marketer-Generated Content," *Information Systems Research* (24:1), pp 88-107.
- Granovetter, M. S. 1973. "The Strength of Weak Ties," *American journal of sociology*), pp 1360-1380.
- Gremler, D. D., Gwinner, K. P., and Brown, S. W. 2001. "Generating Positive Word-of-Mouth Communication through Customer-Employee Relationships," *International Journal of Service Industry Management* (12:1), pp 44-59.
- Gruhl, D., Guha, R., Liben-Nowell, D., and Tomkins, A. Year. "Information

- Diffusion through Blogspace," Proceedings of the 13th international conference on World Wide Web, ACM2004, pp. 491-501.
- Hirschman, E. C., and Holbrook, M. B. 1982. "Hedonic Consumption: Emerging Concepts, Methods and Propositions," *The Journal of Marketing*, pp 92-101.
- Hoffman, D. L., and Fodor, M. 2010. "Can You Measure the Roi of Your Social Media Marketing?," *MIT Sloan Management Review* (52:1) Fall Fall 2010, pp 41-49.
- Jahn, B., and Kunz, W. 2012. "How to Transform Consumers into Fans of Your Brand," *Journal of Service Management* (23:3), pp 344-361.
- Jarvenpaa, S. L., Knoll, K., and Leidner, D. E. 1998. "Is Anybody out There? Antecedents of Trust in Global," *Journal of Management Information Systems/Spring 1998* (4:4), pp 29-64.
- Jin, X.-L., Cheung, C. M., Lee, M. K., and Chen, H.-P. 2009. "How to Keep Members Using the Information in a Computer-Supported Social Network," *Computers in Human Behavior* (25:5), pp 1172-1181.
- Kaplan, A. M., and Haenlein, M. 2010. "Users of the World, Unite! The Challenges and Opportunities of Social Media," *Business horizons* (53:1), pp 59-68.
- Katz, E. 1959. "Mass Communications Research and the Study of Popular Culture: An Editorial Note on a Possible Future for This Journal," *Departmental Papers (ASC)*, p 165.
- Katz, E., Haas, H., and Gurevitch, M. 1973. "On the Use of the Mass Media for Important Things," *American sociological review*, pp 164-181.
- Kietzmann, J. H., Hermkens, K., McCarthy, I. P., and Silvestre, B. S. 2011. "Social Media? Get Serious! Understanding the Functional Building Blocks of Social Media," *Business Horizons* (54:3), pp 241-251.
- Li, Y.-M., and Shiu, Y.-L. 2012. "A Diffusion Mechanism for Social Advertising over Microblogs," *Decision Support Systems* (54:1), pp 9-22.
- Libai, B., Bolton, R., Bügel, M. S., de Ruyter, K., Götz, O., Risselada, H., and Stephen, A. T. 2010. "Customer-to-Customer Interactions: Broadening the Scope of Word of Mouth Research," *Journal of Service Research* (13:3), pp 267-282.
- Lu, Y., Zhao, L., and Wang, B. 2010. "From Virtual Community Members to C2c E-Commerce Buyers: Trust in Virtual Communities and Its Effect on Consumers' Purchase Intention," *Electronic Commerce Research and Applications* (9:4), pp 346-360.

- Mangold, W. G., and Faulds, D. J. 2009. "Social Media: The New Hybrid Element of the Promotion Mix," *Business horizons* (52:4), pp 357-365.
- Mittal, V., Huppertz, J. W., and Khare, A. 2008. "Customer Complaining: The Role of Tie Strength and Information Control," *Journal of Retailing* (84:2), pp 195-204.
- Moorman, C., Deshpande, R., and Zaltman, G. 1993. "Factors Affecting Trust in Market Research Relationships," *The Journal of Marketing*), pp 81-101.
- Morgan, R. M., and Hunt, S. D. 1994. "The Commitment-Trust Theory of Relationship Marketing," *the journal of marketing*), pp 20-38.
- Mouw, T. 2006. "Estimating the Causal Effect of Social Capital: A Review of Recent Research," *Annual Review of Sociology*), pp 79-102.
- Nunnally, J. C., Bernstein, I. H., and Berge, J. M. t. 1967. *Psychometric Theory*, (McGraw-Hill New York.
- Park, C. W., and Lessig, V. P. 1977. "Students and Housewives: Differences in Susceptibility to Reference Group Influence," *Journal of Consumer Research*), pp 102-110.
- Pigg, K. E., and Crank, L. D. 2004. "Building Community Social Capital: The Potential and Promise of Information and Communications Technologies," *The Journal of Community Informatics* (1:1).
- Ridings, C. M., Gefen, D., and Arinze, B. 2002. "Some Antecedents and Effects of Trust in Virtual Communities," *The Journal of Strategic Information Systems* (11:3), pp 271-295.
- Riegner, C. 2007. "Word of Mouth on the Web: The Impact of Web 2.0 on Consumer Purchase Decisions," *Journal of Advertising Research* (47:4), p 436.
- Rogers, E. M., and Bhowmik, D. K. 1970. "Homophily-Heterophily: Relational Concepts for Communication Research," *Public Opinion Quarterly* (34:4), pp 523-538.
- Ruggiero, T. E. 2000. "Uses and Gratifications Theory in the 21st Century," *Mass communication & society* (3:1), pp 3-37.
- Russell, M. G. 2009. "A Call for Creativity in New Metrics for Liquid Media," *Journal of Interactive Advertising* (9:2).
- Sangwan, S. Year. "Virtual Community Success: A Uses and Gratifications Perspective," *System Sciences*, 2005. HICSS'05. Proceedings of the 38th Annual Hawaii International Conference on, Ieee2005, pp. 193c-193c.

- Schau, H. J., and Gilly, M. C. 2003. "We Are What We Post? Self-Presentation in Personal Web Space," *Journal of consumer research* (30:3), pp 385-404.
- Sheldon, P. 2008. "The Relationship between Unwillingness-to-Communicate and Students' Facebook Use," *Journal of Media Psychology: Theories, Methods, and Applications* (20:2), p 67.
- Solis, B. 2010. "Social Media's Critical Path: Relevance to Resonance to Significance, Hbr Blog Network."
- Stieglitz, S., and Dang-Xuan, L. 2013. "Emotions and Information Diffusion in Social Media—Sentiment of Microblogs and Sharing Behavior," *Journal of Management Information Systems* (29:4), pp 217-248.
- Susarla, A., Oh, J.-H., and Tan, Y. 2012. "Social Networks and the Diffusion of User-Generated Content: Evidence from Youtube," *Information Systems Research* (23:1), pp 23-41.
- Tufekci, Z. 2008. "Grooming, Gossip, Facebook and Myspace: What Can We Learn About These Sites from Those Who Won't Assimilate?," *Information, Communication & Society* (11:4), pp 544-564.
- Van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P., and Verhoef, P. C. 2010. "Customer Engagement Behavior: Theoretical Foundations and Research Directions," *Journal of Service Research* (13:3), pp 253-266.

## APPENDIX. QUESTIONNAIRE

### Part I. Survey Questions

Survey Questions		5	4	3	2	1
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<b>I. Content Gratification</b>						
1.	UGC on SNS is useful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	UGC on SNS is beneficial.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	UGC on SNS is functional.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	UGC on SNS is practical.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	UGC on SNS is fun.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	UGC on SNS is exciting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	UGC on SNS is pleasant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	UGC on SNS is entertaining.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>II. Social Relation Gratification</b>						
1.	Approximately how frequently do you communicate with the contacts on your friends list on this SNS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Overall, how important do you feel about the contacts on your ‘friends’ list on this SNS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Overall, how close do you feel to the contacts on your ‘friends’ list on this SNS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	The author of the message thinks like me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	The author of the message considers like me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	The author of the message behaves like me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I trust most contacts on my friends list on the SNS.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	I have confidence in the contacts on my friends list on the SNS.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I can believe in the contacts on my friends list on the SNS.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	When buying products, I generally purchase those products that I think others will approve of.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11.	If other people can see me using a product, I often purchase the products they expect me to buy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	I achieve a sense of belonging by purchasing the same products that others purchase.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	If I have little experience with a product, I often ask my friends about the product.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	I often consult other people to help choose the best alternative available from a product class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	I frequently gather information from friend or family about a product before I buy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>III. Self-presentation Gratification</b>						
1.	On this platform, I can make a good impression on others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	On this platform, I can improve the way I am perceived.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	On this platform, I can present who I am to others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	On this platform, I can present who I want to be to others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>IV. Resonance Behaviors</b>						
1.	After reading the UGC on SNS, I will press the “like” button to approve it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	After reading the UGC on SNS, I will reply the article to comment my opinions on it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	After reading the UGC on SNS, I will share the article to my friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>V. Purchase Intention</b>						
1.	Given the chance, I would consider purchasing products in the future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	It is likely that I will actually purchase products in the near future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Given the opportunity, I intend to purchase products.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Part II. Demographics

1. What is your gender?

- Male  Female

2. How old are you?

- Under 20  21~30  31~40  41~50  51~60  Over 61

3. What is the highest degree or level of academic background you have completed?

- Elementary school  Junior high school  Senior high school  
 University  Graduate School

4. How much do you earn in each month?

- Less than 10,000  10,001~20,000  Over 20,001

5. How long have you used this SNS?

- Less than 1 year  1~3 year  3~5 year  5~7 year  
 More than 7 years

6. What is your E-mail Address?