

國立交通大學

資訊管理研究所

碩士論文

影響使用者利用 YouTube 分享影片因素之研究

Predicting the determinants of users' intention in using  
YouTube to share video



研究生：張錦梅

指導教授：楊千教授

中華民國九十八年一月

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研究生：張錦梅

Student: Suyanti Tan

指導教授：楊 千

Advisor: Chyan Yang

國立交通大學

資訊管理研究所



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學生：張錦梅

指導教授：楊千 博士

交通大學 資訊管理研究所 碩士班

## 中文摘要

近年來，影片分享網站已經迅速的發展，但是過去的研究很少探討影片分享網站使用的動機，為了探索使用者參與影片分享網站的行為意願，本研究以科技接受模型(TAM)為理論基礎，另加入「社會影響」觀點以建立本研究之理論架構，並進一步以性別為調節變數來分析。

經由國內之 PTT BBS 站與相關討論區等方式散佈問卷所在的網址，進行為期七週的調查，共回收 341 份有效問卷，其中包含男生 206 份與女生 135 份。研究結果顯示「認知易用」對參與影片分享網站是很重要的影響因素。此外性別差異在「社會影響」因素有顯著的不同；「網絡外部性」與「人際規範」對男性使用者是很重要的影響因子，但對女性使用者而言，「社會規範」才是影響參與分享影片重要的因素。依據統計分析結果，本研究提出在學術上與實務上的管理意涵，供後續研究做參考。

關鍵字：影片分享，性別，科技接受模型，社會影響

# Predicting the determinants of users' intention in using YouTube to share video

**Student: Suyanti Tan**

**Advisor: Dr. Chyan Yang**

Institute of Information Management  
National Chiao Tung University

## Abstract

The use of video sharing websites has been booming since past few years; nevertheless, little is published about what motive people to use a particular video sharing website. In response, this paper proposed a model based on technology acceptance model and social influences theory with moderating effects of gender.

A survey of 206 male and 135 female video sharer of YouTube found support the model. The result indicated that perceived ease of use is important determinant of intention to use YouTube to share video. Nevertheless, factors from social influences differently affect intention to use YouTube to share video. Perceived network externalities and interpersonal norm are determinants among male users, whereas social norm is key driven of intention to use YouTube to share video among female users. Based on those findings, implications for theory and practice are discussed.

**Keywords:** video sharing, gender, technology acceptance model (TAM), social influence theory

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## CHAPTER 1 INTRODUCTION

This research aims to examine a theoretical model of user's intention in using YouTube to share videos. We start this chapter by explaining the basic thinking, motivation and purpose of doing this research. Consisting four sub-chapters, this chapter is organized as follows: first is explaining the author's background and motivation, second is about the research purpose, third is illustrating the research process and fourth is about how this thesis was organized.

### 1.1 Research Background and Motivation

Nowadays internet has been widely used all over the world. Its functions have also grown not only as the media for communicating data, but also for sharing knowledge, picture, audio, video, and other time-based data (Garrison, 2001). It means that website is no longer regarded as the text or written word, but it is used as a combination of all forms of media and can also function as the source of entertaining, informative media such as television or cinema by uploading the media and sharing it via the internet video sharing application. One of the most successful internet video sharing applications is YouTube. This free online video streaming website has services that allows anyone to view and share videos uploaded by its users.

Since its first launching in December 2005, YouTube has been the leading player in online video and become the destination of both watching and sharing original videos globally across internet using website, mobile devices, blogs, and e-mail (YouTube, 2008). In October 2006, YouTube was sold to Google for \$1.65 million (Sorkin, 2006). Since then, YouTube has been set into a multi-billion dollar business, generating advertising revenues for Google and fears of displacement for traditional

producers of video. Everybody can upload and watch videos in YouTube. There are hundreds of thousands of videos uploaded daily and more than 100 million videos are watched daily on this popular video sharing website (YouTube, 2008). The traffic of YouTube is the third highest in all categories with 183 millions of monthly visitors globally and in some countries, such as USA, UK, Australia, Canada, Japan, Taiwan, and so on, YouTube ranks number one in video sharing website category (Alexa.com, 2008). List of global top website is provided in appendix.

Seeing this phenomenon, we might have of some questions in our mind, why do people choose YouTube? What are the factors actually contribute to user intention in choosing YouTube to share the videos? The fact that every minute, ten hours of video is uploaded to YouTube tells us how YouTube dominates this video streaming business. The author was motivated to do this research in order to find the answer of this question which may also be useful for the competitors to benchmark on YouTube's way to success.



Note that in this paper, we only focus on sharing video to the public activities, no matter whether it is original or duplicate, and do not include watching activities. In order to be able to upload and broadcast either public or private video clips of any reasonable length, users have to create an account to upload their videos.

## 1.2 Research Purpose

We have three main purposes of this research. First is to examine factors in TAM influences user's intention in choosing YouTube to share videos. Many researches have modified and widely applied TAM to measure the acceptance level of information technology usage (Agarwal & Karahanna, 2000; D. Gefen, Karahanna, & Straub, 2003; P. J. Hu, Chau, Sheng, & Tam, 1999; Moon & Kim, 2001; Teo, Lim, &

Lai, 1999; Wang, Hsu, & Fang, 2004; Zhang & Prybutok, 2003). Nevertheless, TAM itself may not enough to reflect the intention of choosing YouTube to share videos. Therefore we also considered factors from social influences in our proposed model. Our second purpose is to examine factors influencing user's intention in choosing YouTube to share videos in the social influences perspective.

The third purpose is to analyze differences of user intention in choosing YouTube to share videos based on their gender. By making comparison, we want to see where the most significant difference between male user and female user is.

This study applies a structure equation model (SEM) to measure the empirical strength of the relationship in the proposed model. The model is being developed with a major objective in mind. It should improve our understanding of user intention in choosing YouTube to share videos, providing new theoretical insight into the YouTube's success in video streaming business.

### 1.3 Research Process Flow Chart

The research is begun with identifying the direction and some problems related to this research as well as the purpose. After all the identification processes, we reviewed the literatures that were useful to this research. The next process is to establish the research framework. Afterwards, based on the research framework, we design the questionnaire for our measurement scale. The questionnaire was revised with the guidance of our advisor to avoid some ambiguities and finally the questionnaire was spread through the internet. We used structural equation modeling to analyze the measurement model and the structural model. The final step was to draw the conclusion and propose some suggestions for the future research. We can see the complete research process flow chart in Figure 1.

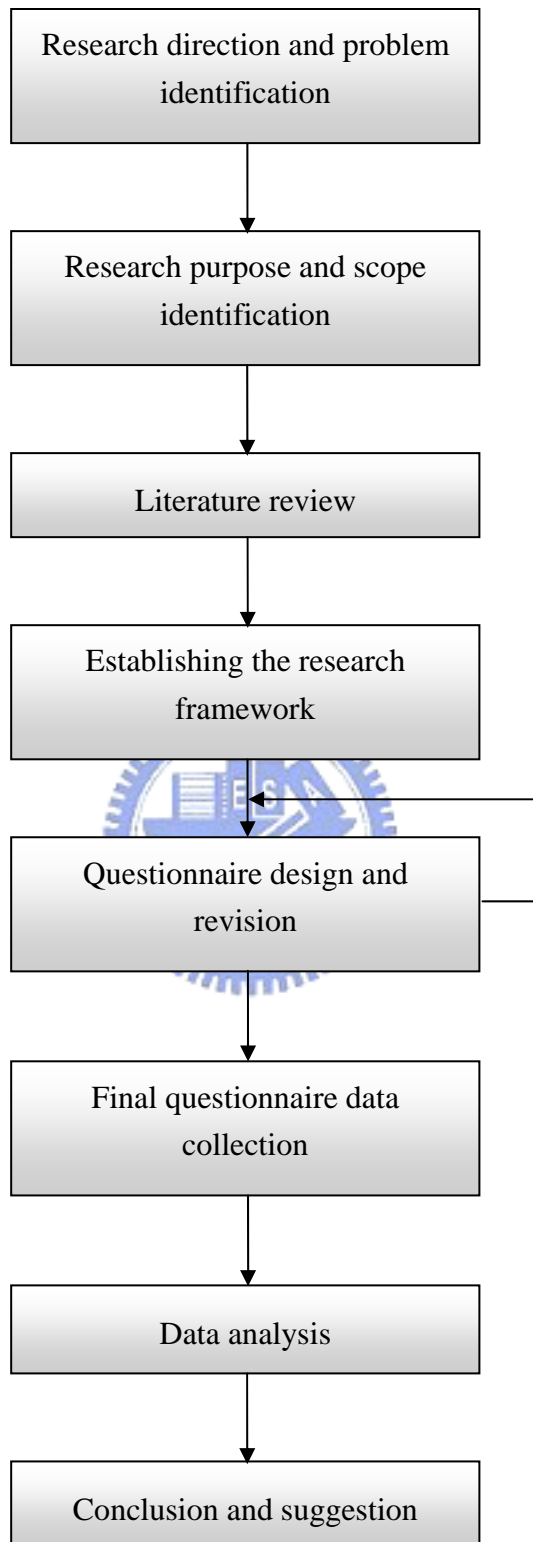


Figure 1 Research Process Flow Chart

#### 1.4 Thesis Organization

Chapter one of this thesis includes the research background, motivation, purpose, and process flow chart. Chapter two explains the literature review and prior knowledge. Chapter three describes the framework and methodology used in this research. Chapter four includes the measurement model result and structural model. Finally, the last chapter intends to present some implications, and to propose some suggestions for the future research.



## CHAPTER 2 LITERATURE REVIEW

The purpose of this chapter is to arrange the literature or prior knowledge related to our research. This chapter consists of three sub-chapters. The first sub-chapter describes the overview of online video streaming. Second is about introduction of YouTube. In the third sub-chapter, we review popular theory of technology acceptance model. The last sub-chapter explains about the extended factors, that is theory of social influences.

### 2.1 Online Video Streaming Overview

Online videos existed long before YouTube entered the scene. Nevertheless, the early generation technology to upload videos, managing, sharing and watching them were lack of a user-friendly platform. The videos people shared by traditional media server or peer-to-peer were standalone units. For example, a show contained several episodes would be uploaded per episode for a single video and each single video would be not connected to other related video clips. Also, difficult to give ratings or comments of video clips are also the weaknesses of this kind of internet video sharing. But when YouTube and some other competitors as the new generation of internet video sharing entered this market, they brought their products or service with the better features and overcame those problems. They allow users to upload video effortlessly, automatically converting from many different formats, and to tag uploaded videos with keywords. Users can easily share videos by mailing the links to them, or embedding them on web pages or in personal blogs. Using the basis of web 2.0 (O'Reilly, 2005), YouTube and others video sharing website enable other users to participate in the webpage by rating and commenting on videos, bringing new social aspects to the viewing of videos. Consequently, popular videos can rise to the top in a



very organic fashion. The social network existing in YouTube further enables communities and groups. Videos are no longer independent from each other, and neither are users. This has substantially contributed to the success of YouTube and similar sites.

## 2.2 Introduction of YouTube

Founded in February 2005, YouTube is the leader in online video, and the premier destination to watch and share original videos worldwide through a Web experience. YouTube allows people to easily upload and share video clips on www.YouTube.com and across the Internet through websites, mobile devices, blogs, and email.

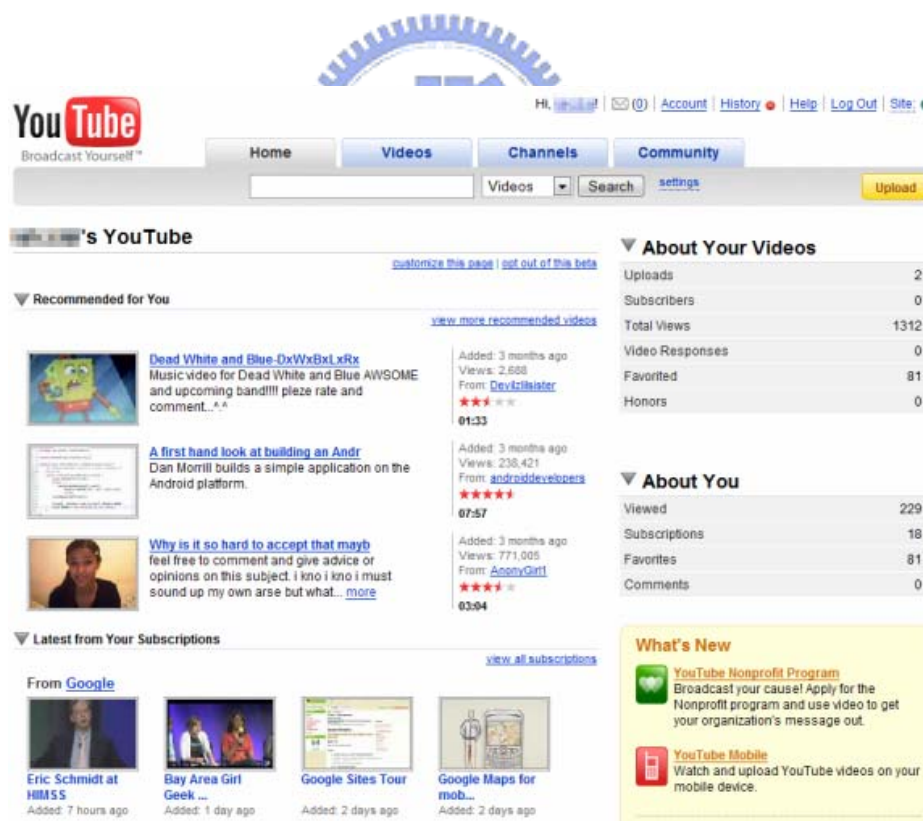


Figure 2 YouTube's webpage  
Source: www.youtube.com

Everyone can watch videos on YouTube. People can see first-hand accounts of current events, find videos about their hobbies and interests, and discover the quirky and unusual. As more people capture special moments on video, YouTube is empowering them to become the broadcasters of tomorrow.

YouTube received funding from Sequoia Capital in November 2005 and was officially launched one month later in December. Chad Hurley and Steve Chen proceeded to become the first members of the YouTube management team and currently serve as Chief Executive Officer and Chief Technology Officer respectively. In November 2006, within a year of its launch, YouTube was purchased by Google Inc. in one of the most talked-about acquisitions to date.

YouTube has struck numerous partnership deals with content providers such as CBS, BBC, Universal Music Group, Sony Music Group, Warner Music Group, NBA, The Sundance Channel and many more.

### 2.3 Technology Acceptance Model

Technology Acceptance Model, introduced by Davis (1989), was intended to measure the user acceptance of technology use. It is an adaptation from Theory of Reasoned Action (Fishbein & Ajzen, 1975). According to TRA, a person's behavior is determined by his or her behavioral intention, and behavioral intention is determined by both attitude of a person and subjective norm related to the behavior. Attitude is defined as the positive or negative feeling of a person about doing a behavior. Subjective norm is defined as what the most important people for him or her would think about doing that particular behavior.

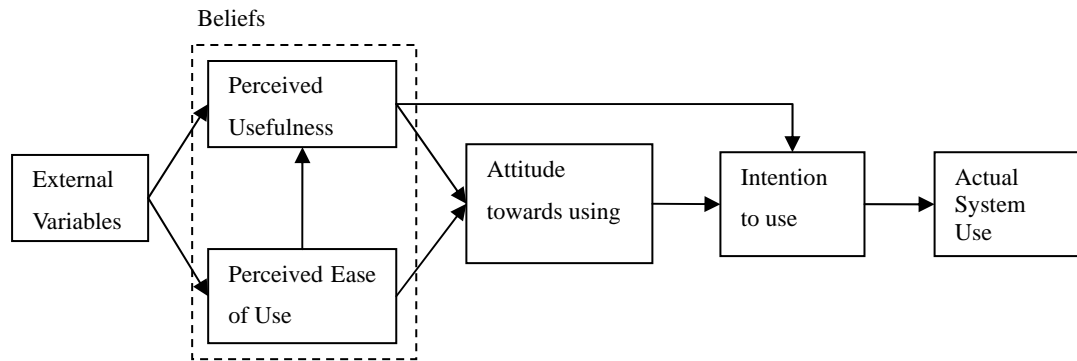


Figure 3 Technology Acceptance Model

source: (Davis, 1989)

TAM originally consists of perceived usefulness (PU) and perceived ease of use (PEOU) as belief of a person as shown in Figure 3. These two utility factors are the primary determinants in TAM. Perceived usefulness is defined as the degree to which a person believes that using a specific application system would enhance his or her job and life performance. Perceived ease of use is defined as the degree to which a person believes that using a specific application system would be free of effort. Both beliefs will influence attitude of a person in using an application system. PEOU will affect PU; the easier to use the system, the more the person believes that the system is useful to him or her. Using PU and attitude, we can predict a person's intention to use the application system.

Few years later, many researchers modified and widely applied TAM to measure the acceptance level of information technology usage (Agarwal & Karahanna, 2000; D. Gefen, et al., 2003; P. J. Hu, et al., 1999; Moon & Kim, 2001; Teo, et al., 1999; Wang, et al., 2004; Zhang & Prybutok, 2003). Agarwal and Karahanna (2000) supported two important beliefs about technology usage: perceived usefulness and perceive ease-of-use related to behavioral intention. Moon and Kim (2001) and Teo,

*et al.* (1999) applied extended TAM to predict the determinants of internet or World Wide Web usage. They found perceived usefulness and perceived ease-of-use, as well as other external variables had relationship to user behavioral intention in using internet and www. Gefen (2003) and Zhang and Prybutok (2005) adapted TAM to find the factors affecting behavioral intention in e-commerce and internet auctions. Their findings corroborated that customers' intention to transact via internet depended on perceived usefulness and perceived ease-of-use. Wang, *et al.* (2004) conducted investigations based on TAM and its extension to analyze user acceptance on instant messaging service. Their result showed two beliefs of TAM were related to users' intention to use instant messenger.

#### 2.4 Social Influence

A social influence process involves behavior by one person that has the effect-or even just the intention-of changing the way another person behaves, feels or thinks about a stimulus (Zimbardo & Leippe, 1991). The stimulus might be political issue, a product, or an activity. Fishbein and Ajzen represented social influence in their theory of reasoned action as subjective norm (Fishbein & Ajzen, 1975). In 1991, Ajzen introduced social influence as subjective norm in theory of planned behavior (I Ajzen, 1991). They pointed out that the more favorable the attitude and subjective norm toward a behavior, the stronger will individual's intention to perform or to do a behavior. In past several years, many prior studies have proven that social influence significantly effects user behavior (Bhattacharjee, 2000; Chang & Cheung, 2001; Grandon, Alshare, & Kwun, 2005; C. L. Hsu & Lu, 2004; M. H. Hsu & Chiu, 2004b; Liker & Sindi, 1997; Nysveen, Pedersen, & Thorbjornsen, 2005; J Song & Kim, 2006). Chang and Cheung (2001) found that influence from social social on intention

to use internet or World Wide Web at work is significant. Bhattacharjee (2000) pointed that subjective norm was an important factor in predicting intention to use electronic brokerage services. He viewed subjective norm as two forms of influence, namely interpersonal influence and external influence. Interpersonal influence refer to influence by family, friends, colleagues, superiors, while external influence referred to influence by mass media, expert opinion (Bhattacharjee, 2000). Hsu and Lu (2003) viewed social influences as two factors: social norm and critical mass. Social norm referred to influence from colleagues, classmates and friends, while critical mass referred to the value of technology to a user increases with the number of its adopters. In predicting the factors of users' intention in playing online game, they found that social norm significantly related to intention, while critical mass significantly related to attitude (C. L. Hsu & Lu, 2004). If influence from other people can change our belief as long as behavior, it means we response to the social influence (Rawlings, Barry, Skouteris, & Rawlings, 2006). Therefore, in this study, we believe that social influence affecting users' intention to use YouTube to share videos stems from three sources: perceived network externalities, interpersonal norm and social norm.

#### 2.4.1 Perceived Network Externalities

In using or adopting particular system, people will consider the number of people using this system. In the literature, the term is also known as network externalities or critical mass (Katz & Shapiro, 1994; Kraut, Rice, Cool, & Robert, 1998; Markus, 1987). According to Metcalfe's law, network externalities exist when the value of a product or service increases as the number of consumers of the product increases, not because of the quality of the product to the consumer (Katz & Shapiro, 1985). Many researches using this theory have been conducted to explain the growth of information technology

adoption (Lee, 2006; J. Song & Wladen, 2007).

There are three sources of network externalities (Katz & Shapiro, 1985). The first one is that network externalities may be generated from direct physical effect of the number of users on the quality of the product or service. The utility of phone or fax machine will increase as the number of people using phone or fax machine increases. Another source is an indirect effect where the value of a product increases with the number of users because the quality of the product is higher or there are more complementary products available. After a new kind of operating system is released, it will be more software that is compatible with the new operating system. The last source of network externalities arises in situations where increasing number of sales of a durable good produces greater quality and availability of post-purchase services related to the product depend on the experience and size of the service network. The number of service center of a product increase as the number of the consumer increases. Relating to network externalities theory, the number of shared video in video streaming website like YouTube grows as the number of YouTube viewers grows. In other words, the more people watch YouTube, the more videos could be shared by YouTube. Consequently, perceived network externality is included as one of the antecedents of intention to use in our model.

There are some prominent postulates of network externality theory (Rohlf, 1974): the value to a user from joining the network is an increasing function of the total number of users who join the network, that users perceive this value and that they make their joining decision based on this perceived value. Video streaming website networks are clearly possessed of network externalities.

#### 2.4.2 Interpersonal Norm

Interpersonal influence happens in the most individualized influence situations, in which the number of people immediately involved is small and there is one-to-one communication between influence agent and target (Zimbardo & Leippe, 1991). For example, how a best friend tries to convince you go to watch movie with him, or how a mother try to get his son to clean his room.

In the theory of planned behavior (I. Ajzen, 1985), decision maker' subjective norms related to their cohesive referents, such as family, friends and colleagues. According to innovation diffusion theory (E. M. Rogers, 1983), users will tend to increase communication with referent others to interpret the IT adoption. Therefore, the interactions with social network will influence their decision about IT adoption. In the newer version of his book, Rogers explained there are two category of communication channel, namely interpersonal channel and mass communication (E. Rogers, 1995).

Interpersonal norm is a direct and unmediated causal effect of one person on another (Friedkin, 1998) or in the other words, peer to peer influence (Hung, Ku, & Chang, 2003). Friedkin also mentioned that the greater the probability of an interpersonal attachment from one person to another, the greater the probability that one person will have some influence on another person. Interpersonal norm refers to “influence by friends, family members, colleagues, superiors, and experienced individuals known to the potential adopter (Bhattacharjee, 2000).

### 2.4.3 Social Norm

In the theory of planned behavior framework, a social norm is defined as perceived social pressure that is whether or not perform a behavior (I. Ajzen, 1985). Social norm refers to mass media reports and expert opinions considered by individuals in performing a behavior (Bhattacharjee, 2000). According to Zimbardo and Leippe (1991), Influence takes place in mass media settings. Message and images conveyed over television, radio, and printed publications reach millions of people around the world (Zimbardo & Leippe, 1991). By nature, they are highly impersonal; not only are they designed to be meaningful to many individuals, but they are also communicated through a medium. The communicator is neither physically present nor often explicitly identifiable as a single person or entity but yet the influence can be potent.

The mass media undoubtedly serve many social functions (Lazarsfeld & Merton, 1996). One of them is the status conferral function. In this function, the mass media confer status on public issues, persons, organizations, and social movements. Another function is the enforcement of social norms. Such function catches phrases as the power of the press (and other mass media) or the bright glare of publicity. As for our study, based on those functions stated above, we add social norm as a function of the mass media to influence someone's behavioral intention.

### 2.5 Moderating Effects of Gender

Gender has been one of the most common forms of segmentation in marketing practice (Putrevu, 2001). There are three reasons of frequently applying gender as a segmentation strategy. First, information about gender is easily identified and



accessed. Second, gender segments are measurable and responsive to marketing mix elements. Finally, gender segments are adequately extensive and profitable (Darley & Smith, 1995). The literature on gender issues in, for example, advertising, is vast and findings suggest that females versus males process advertisements differently, and, consequently, respond differently to marketing communication efforts (Wolin, 2003). Moreover, gender is also frequently being identified as a key moderator in consumer behavior studies (Bendall-Lyon & Powers, 2002; Dommeyer & Gross, 2003; Moutinho & Goode, 1995) and studies of technology usage (D Gefen & Straub, 1997; Venkatesh & Morris, 2000). Gefen and Straub (1997) revealed that women and men differ in their perception of e-mail, while Venkatesh and Morris (2000) found there are gender differences in the determinants for using a new software system at a workplace. The results from these two studies indicate differential effects of gender on determinants for using information technology.



## CHAPTER 3 RESEARCH FRAMEWORK AND METHODOLOGY

This chapter is devoted to describe the research framework and research methodology used in this study. It contains four sub-chapters: research framework, definition of the constructs, development of the hypotheses and the research methodology.

### 3.1 Research Framework

Figure 4 illustrates the research model which was built based on TAM model and social influence from related literature. For social influence, it asserts Perceived Network Externalities, Interpersonal Norm and Social Norm which in this model are directly related to Intention to use YouTube to share videos.

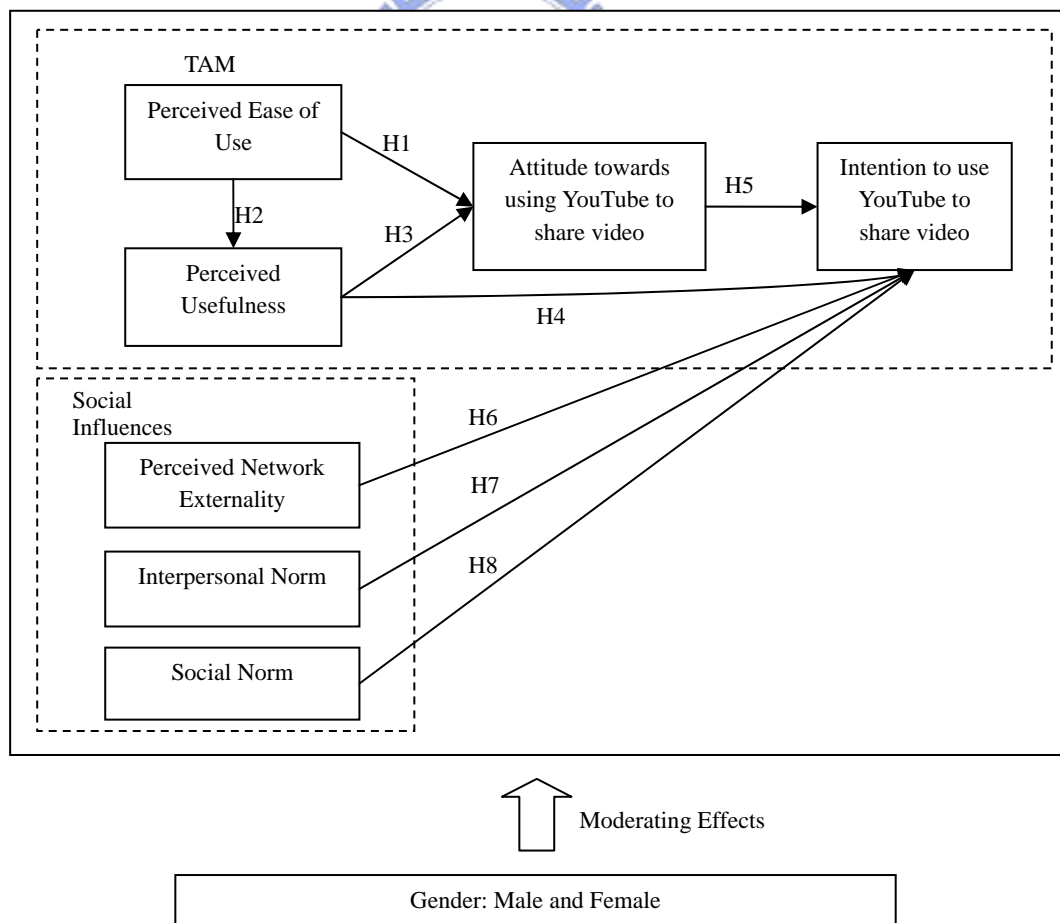


Figure 4 Research Model

## 3.2 Variables Used in the Research and the Definition

### 3.2.1 Variable used in the Research

Referring to the research model at Figure 4, we have two kinds of variables used in this study, exogenous and endogenous variable. The exogenous variables contained Perceived Ease of use from TAM, and Perceived Network Externalities, Interpersonal Norm and Social Norm from social influence. On the other hand, the endogenous variables contained Perceived Usefulness, Attitude towards using YouTube to share videos and Intention to use YouTube to share videos. Based on this work, our study focused on gender as the moderator.

### 3.2.2 Definition of Constructs

The complete definition of the constructs we used in the study was provided in Table 1. We referred to prior literature related to this topic. For example, for constructs in TAM model including PU, PEOU, Attitude and Intention, we mostly referred to Davis (1989), Davis et al. (1989). In addition, we referred to some others like Jackson et al. (1997), Hu et al. (1999), Hsu & Lu (2004) and Shang et al. (2005) which we consider useful for our study. For perceived network externalities, we referred our definition to the study of Lee (2006), Song & Wladen (2007), while for interpersonal norm and social norm are mostly referred to study of M. H. Hsu & Chiu (2004), C. L. Hsu and Lin (2008), C. L. Hsu and Lin (2008).

Table 1 Definition of the Constructs

Construct	Definitions	References
Perceived Usefulness (PU)	The degree to which a person believe that YouTube would enhance his/her job and life performance	(Davis, 1989; Davis, Bagozzi, & Warshaw, 1989; C. L. Hsu & Lu, 2004; P. J. Hu, et al., 1999; Jackson, Chow, & Leitch, 1997; Shang, Chen, & Shen, 2005)
Perceived Ease of Use (PEOU)	The degree to which a person believes that using YouTube would be free of effort	(Davis, 1989; Davis, et al., 1989; C. L. Hsu & Lu, 2004; P. J. Hu, et al., 1999; Jackson, et al., 1997; Shang, et al., 2005; Venkatesh & Davis, 1996)
Attitude towards using YouTube to share videos (AT)	The degree of one's positive feelings about using YouTube to share videos	(Davis, 1989; Davis, et al., 1989; Fishbein & Ajzen, 1975; C. L. Hsu & Lu, 2004; P. J. Hu, et al., 1999; Jackson, et al., 1997)
Perceived Network Externalities (PNE)	The utility of the good increases with the number of other agents consuming the good	(Frambach & Schillewaert, 2002; Lee, 2006; J. Song & Wladen, 2007)
Interpersonal Norm (IN)	The degree of the normative influence's importance including a-face-to-face exchange with people he/she knows will influence one's behavioral intention	(Bhattacharjee, 2000; M. H. Hsu & Chiu, 2004a, 2004b)
Social Norm (SN)	The degree of the external influence's importance including mass media report or expert opinion will influence one's behavioral intention	(Bhattacharjee, 2000; C. L. Hsu & Lin, 2008; C. L. Hsu & Lu, 2004; M. H. Hsu & Chiu, 2004a, 2004b)

Table 1 Definition of the Constructs (con't)

Construct	Definition	Reference
Intention to use YouTube to share video (BI)	The degree of a person's willingness to use YouTube to share videos	(Davis, 1989; Davis, et al., 1989; Fishbein & Ajzen, 1975; C. L. Hsu & Lu, 2004; P. J. Hu, et al., 1999; Jackson, et al., 1997; Moon & Kim, 2001)

### 3.3 Research Hypotheses

This research model adopted the TAM belief-attitude-intention relationship. First of all, we verified the hypotheses related to PU and PEOU. In our study, PEOU is defined as degree to which a person believes that using YouTube would be free of effort. As the previous studies (Davis, 1989; Davis, et al., 1989; C. L. Hsu & Lin, 2008; C. L. Hsu & Lu, 2004; Jackson, et al., 1997) have demonstrated the relationship between PEOU with PU and PEOU with attitude, we therefore established the hypotheses below:

**Hypothesis 1.** Perceived ease of use is positively related to attitude toward using YouTube to share videos.

**Hypothesis 2.** Perceived ease of use is positively related to perceived usefulness.

Many Prior studies (Davis, 1989; C. L. Hsu & Lin, 2008; C. L. Hsu & Lu, 2004; Moon & Kim, 2001) had shown us that PU can both directly and indirectly relate to behavioral intention. In this study, PU is defined as degree to which a person believe that choosing YouTube to share videos would fulfill his/her purpose because there would be many people to watch them so that this activity can enhance their life

performance. Therefore, PU was expected to have a positive effect behavioral intention. Also, as the prior studies shown that PU also was directly related to attitude, so we wish to demonstrate the same result here.

**Hypothesis 3.** Perceived usefulness is positively related to attitude toward using YouTube to share videos.

**Hypothesis 4.** Perceived usefulness is positively related to Intention to use YouTube to share videos.

The last hypothesis in the basis of TAM in our model is to describe the relationship between attitude and intention. We wish to demonstrate the attitude was positively related to intention to use YouTube to share videos.

**Hypothesis 5.** Attitude toward using YouTube to share videos is positively related to Intention to use YouTube to share videos.



Aside from TAM's constructs, we add some constructs from social influence factors. Social influence occurs when somebody's action is changed by other individuals or things or when somebody has intention to change because of a stimulus (Zimbardo & Leippe, 1991). Stimulus can be people, an activity, a product or an issue. Using web 2.0 platforms, YouTube's has characteristics as other web 2.0 websites have and the most obvious one is user participation. In YouTube, user can participate in two major ways, sharing and watching videos, or other ways such as rating or commenting a video. The impact of user participation is value of the application will increase as the number of participants increase (O'Reilly, 2005). In sharing video, user will have an expectation his/her video will be watched. If there are no other participants in that application, it is just uploading video for his/her own self and the

value of the video will not increase. This condition is in consonance with theory of network externality (Liebowitz & Margolis, 1994). According to Liebowitz and Margolis, network externality is the change in the benefit, or surplus that a person derives from a good when the number of other people consuming the same kind of good changing.

Bhattacharjee explained about two source of social influence in his study (Bhattacharjee, 2000); Interpersonal influence which refers to worth-of-mouth influence by friends, colleagues and superiors, while external influence refers to mass media reports, expert opinions and other non-personal information. Proofs of those sources of influences are supported by marketing studies (Herr, Kardes, & Kim, 1991; Holak, 1988) and information technology product acceptance studies (Agarwal & Prasad, 1997; Brancheau & Wetherbe, 1990; Wangenheim & Bayon, 2003).

Based on this definition, we wish to demonstrate user's intention to use is positively influenced by perceived network externality (Frambach & Schillewaert, 2002; Lee, 2006; J. Song & Wladen, 2007), interpersonal norm and social norm (Bhattacharjee, 2000; C. L. Hsu & Lin, 2008; C. L. Hsu & Lu, 2004; M. H. Hsu & Chiu, 2004a).

**Hypothesis 6.** Perceived network externality is positively related to Intention to use YouTube to share videos.

**Hypothesis 7.** Interpersonal norm is positively related to Intention to use YouTube to share videos.

**Hypothesis 8.** Social norm is positively related to Intention to use YouTube to share videos.

### 3.4 Development of the Questionnaire

The survey instrument for this study was designed using validated items for the prior research as a means of assessing the theoretical constructs of extended TAM model, using TAM scales of PU, PEOU, AT and BI from Davis (1989) and Davis et al. (1989). Besides those two references, for each construct, we used other references as shown in Table 1. A scale for measuring Perceived Network Externalities was developed using the measures of Lee (2006), Song & Wladen (2007) while the measurement of Interpersonal Norm and Social Norm were adapted from M. H. Hsu & Chiu (2004), C. L. Hsu and Lin (2008), C. L. Hsu and Lin (2008),

The questionnaire was divided into three sections: filtering question, main questions and demographic question. Filtering question asked whether the respondent has ever used YouTube to share videos. If the answer is yes, they will go through the next sections. But if the answer is no, they will stop in the current section.

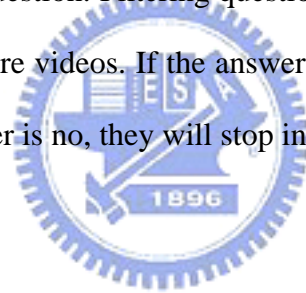




Table 2 Measurement Items of the Related Constructs

Construct	Items
Perceived Usefulness	<p>(PU1) Using YouTube to share videos enables me to accomplish my work/learning/life more quickly.</p> <p>(PU2) Using YouTube to share videos would improve my work/learning/life performance.</p> <p>(PU3) Using YouTube to share videos would enhance my work/learning/life effectiveness.</p>
Perceived Ease of Use	<p>(PE1) It is easy to learn to use YouTube's sharing video website.</p> <p>(PE2) It is easy for me to become skillful at using YouTube in sharing video.</p> <p>(PE3) It is easy to use YouTube's sharing video website.</p>
Attitude towards using YouTube to share video	<p>(AT1) I like to use YouTube to share videos.</p> <p>(AT2) I feel good about using YouTube to share videos.</p> <p>(AT3) Overall, my attitude towards using YouTube to share videos is favorable.</p>
Perceived Network Externalities	<p>(PNE1) Most people are using YouTube to share their videos.</p> <p>(PNE2) The number of people using YouTube to share their videos will increase the value of my videos.</p> <p>(PNE3) Many people use YouTube to share their videos in the future.</p>
Interpersonal Norm	<p>(IN1) My friends think that I should use YouTube to share my videos.</p> <p>(IN2) My colleagues think that I should use YouTube to share my videos.</p> <p>(IN3) My family thinks that I should use YouTube to share my videos.</p>
Social Norm	<p>(SN1) I read/saw news reports that using YouTube was a good way to share videos.</p> <p>(SN2) The popular press depicted a positive sentiment for using YouTube to share videos.</p> <p>(SN3) Expert opinions depicted a positive sentiment for using YouTube to share videos.</p>

Table 2 Measurement Items of the Related Constructs (con't)

Construct	Items
Intention to use YouTube to share video	(BI1) I have the intention of using YouTube to share videos.
	(BI2) I will frequently use YouTube to share videos in the future.
	(BI3) I will strongly recommend others to use YouTube to share video in the future.

In the second section, all scales were modified to suit the context of this research and were measured on a five-point Likert scale which “1” was representing “strongly agree” and “5” was representing “strongly disagree”. Table 2 is the list of questions in the Main Questions section.

The third sections contained the demographic questions including respondents’ gender, age, educational background, how long they have been using YouTube, total number of video they have ever shared, average of hours they spent on internet and the category of video they shared. Summary of the questionnaire sections of this study is shown in Table 3.

Table 3 Summary of Questionnaire Sections

Section	Item	Number of Questions
1	Filtering Question	1
2	Main Questions: Variables used in the Research	21
3	Demographic Questions	7

### 3.5 Preliminary Test and Analysis

In preliminary test, we conducted pre-test and pilot test to as one of the steps of our research processes. After collecting all the data, we used Cronbach's Alpha to assess the reliability analysis and factor analysis to assess the validity of our model.

#### 3.5.1 Pre-test and Pilot Test

The questionnaire was pre-tested on 5 respondents in order to discuss the length of the instruments, the format, and the clarity and appropriateness of the wording of the scales, which is resulted in the revision of some questions that are considered ambiguous.

For the next phase, the questionnaire was designed to be placed as web pages on the World Wide Web (WWW). We use a free service from [www.my3q.com](http://www.my3q.com) to create free online survey, free online questionnaire. The measure was pilot tested on Institute of Information Management's graduate students in National Chiao Tung University. We started to spread this online questionnaire on June 18, 2008. Within one week, we collected 64 respondents which only 52 respondents completely filled in the questionnaire. The objective of the pilot study was to precisely examine the statistical validity of the constructs.

### 3.5.2 Reliability Analysis

A Cronbach's Alpha reliability analysis was applied to test the internal consistency of our measurement model. Table 4 shows that each construct has reliability ranging from 0.666 to 0.920. All the values are acceptable because a minimum Cronbach's Alpha of 0.6 is sufficient for the early stages of the research (Nunnally, 1967).

Table 4 Reliability Statistics

Construct	Cronbach's Alpha	N of Item
PU	0.920	3
PEOU	0.913	3
AT	0.817	3
PNE	0.666	3
IN	0.907	3
SN	0.865	3
BI	0.866	3

### 3.5.3 Validity Analysis

Factor analysis with varimax rotation was performed to ascertain those seven constructs used in this research are distinct constructs. As it is shown in Table 5, the cumulative percentage of variance is 86.395% of the total variance. This number represents that the result is acceptable.

Table 5 Rotated Component Matrix (factor analysis)

Item	Component						
	1	2	3	4	5	6	7
PEOU2	<b>.886</b>	.189	.086	.153	.191	-.024	.068
PEOU1	<b>.877</b>	.158	.128	.204	.156	.075	.055
PEOU3	<b>.833</b>	.066	.242	.095	.059	.296	.109
AT1	<b>.485</b>	.301	.363	.322	-.119	.467	.225
PU2	.233	<b>.870</b>	.131	.027	.257	.103	.088
PU1	.030	<b>.869</b>	.190	.076	.155	.114	.173
PU3	.202	<b>.824</b>	.175	.113	.218	.223	-.020
BI2	.134	.271	<b>.824</b>	.163	.034	.195	.163
BI1	.265	.190	<b>.794</b>	.273	.022	.204	.194
BI3	.289	.247	<b>.546</b>	.431	.254	.234	-.187
PNE3	.045	.089	-.046	<b>.804</b>	.110	.260	.168
PNE1	.284	.132	.234	<b>.782</b>	.141	-.103	-.054
AT2	.113	.007	.396	<b>.750</b>	.182	.136	.137
AT3	.323	.004	.542	<b>.606</b>	.261	.017	.135
SN3	.305	.108	.364	.129	<b>.798</b>	.093	.058
SN1	.004	.329	-.191	.197	<b>.787</b>	.272	.072
SN2	.204	.418	.074	.288	<b>.742</b>	.055	-.071
IN2	.277	.394	.339	.144	.305	<b>.664</b>	.014
IN1	.294	.283	.301	.290	.388	<b>.620</b>	-.100
IN3	-.022	.230	.493	.029	.465	<b>.561</b>	.256
PNE2	.262	.231	.332	.253	.060	.050	<b>.790</b>
Eigenvalue	3.319	3.179	3.146	2.980	2.686	1.844	.989
Cumulative % of variance	15.804	30.942	45.923	60.113	72.903	81.686	86.395

The criteria used to identify and interpret factors were each time should load 0.5 or greater on one factor and 0.35 or below on other six factors (Igbaria, Iivari, & Maragahh, 1995). Some of the result of in Table 5 did not exceed the acceptable values. This may be because of the ambiguity and inappropriateness of the language we used in the questionnaire or there were too few respondents who filled in the questionnaire in this pilot study phase. But after the correction of the language used in each item and the discussion with the Professor, some PhD students, we set the final revision for the questionnaire. The final list of the items in questionnaire is shown in Table 6. The complete questions for the questionnaire are given in the appendix.



Table 6 Final List of Measurement Items of the Related Constructs

Construct	Items
Perceived Usefulness	<p>(PU1) Using YouTube to share videos enables me to accomplish my work/learning/life more quickly.</p> <p>(PU2) Using YouTube to share videos would improve my work/learning/life performance.</p> <p>(PU3) Using YouTube to share videos would enhance my work/learning/life effectiveness.</p>
Perceived Ease of Use	<p>(PE1) It is easy to learn to use YouTube's sharing video website.</p> <p>(PE2) It is easy for me to become skillful at using YouTube in sharing video.</p> <p>(PE3) It is easy to use YouTube's sharing video website.</p>
Attitude towards Using YouTube to share video	<p>(AT1) I like to use YouTube to share videos.</p> <p>(AT2) I feel good about using YouTube to share videos.</p> <p>(AT3) Overall, my attitude towards using YouTube to share videos is favorable.</p>
Perceived Network Externalities	<p>(PNE1) Most people are using YouTube to share their videos.</p> <p>(PNE2) The number of people using YouTube to share their videos will increase the value of my videos.</p> <p>(PNE3) There will be more people use YouTube to share their videos.</p>
Interpersonal Norm	<p>(IN1) My friends think that I should use YouTube to share my videos.</p> <p>(IN2) My colleagues think that I should use YouTube to share my videos.</p> <p>(IN3) My family thinks that I should use YouTube to share my videos.</p>
Social Norm	<p>(SN1) I read/saw news reports that using YouTube was a good way to share videos.</p> <p>(SN2) The popular press depicted a positive sentiment for using YouTube to share videos.</p> <p>(SN3) Expert opinions depicted a positive sentiment for using YouTube to share videos.</p>

Table 6 Final List of Measurement Items of the Related Constructs (con't)

Construct	Items
Intention to use YouTube to share video	(BI1) I have the intention of using YouTube to share videos. (BI2) I will frequently use YouTube to share videos in the future. (BI3) I will strongly recommend others to use YouTube to share video in the future.





## CHAPTER 4 RESULTS

There are several major objectives for the survey reported in this chapter: (1) to explain the data collection process in this final stage survey, (2) to explain the strategy used to assess the model, (3) to show the result of reliability and validity analysis of the model, and (4) to empirically test the hypothesized causal structure of the proposed model.

### 4.1. Data Collection

We set an online survey to collect the data through this website, <http://www.my3q.com/home2/232/moyazu/YouTubenew.phtml>. The survey was started on July 2, 2008 until August 20, 2008, by spreading the website to popular Bulletin Board System in Taiwan ([bbs://ptt.cc](http://bbs://ptt.cc) and [bbs://bs2.to](http://bbs://bs2.to)) and popular forums for online gamers (<http://forum.gamer.com.tw/A.php?bsn=60076> and <http://tw.games.yahoo.com/>). Respondent were asked to complete all the questions especially questions in main questions section. From 397 of the total respondents, only 341 were usable, while 56 were dropped either because of no experience in sharing videos by YouTube or incompleteness in answering the questionnaire. A complete demographic profile of the respondents is presented in Table 7. The gender breakdown was 60 percent male and 40 percent female. Around 69 percents of respondents was at the age of between 21 and 30 years old, while 27 percents of respondents was at the age under 21 years old. More than half of the total respondents had bachelor's degree and had more than one year experience in using YouTube to share video.

Table 7 Profile of respondents

Measure	Items	Frequency	Percentage
Gender	Male	206	60.4%
	Female	135	39.6%
Age	< 21	91	26.7%
	21-30	236	69.2%
	31-40	11	3.2%
	41-50	1	0.3%
	51-60	1	0.3%
	>60	1	0.3%
Education	Elementary School or below	1	0.3%
	Junior High School	5	1.5%
	High School	13	3.8%
	Bachelor's degree	195	57.2%
	Graduate degree	127	37.2%
Experience in using YouTube to share video	<6 months	48	14.1%
	6-12 months	72	21.1%
	>1 year	221	64.8%
Total numbers of shared video using YouTube	<11	281	82.4%
	11-50	44	12.9%
	51-100	9	2.6%
	>100	7	2.1%
Average hours spent per day to use internet	<1	14	4.1%
	1-2	41	12%
	3-4	106	31.1%
	5-6	83	24.3%
	>6	100	28.4%

#### 4.2. Analytical Strategy for Assessing the Model

The proposed model was evaluated using Structural Equation Modeling (SEM), a powerful second-generation multivariate technique for analyzing causal models with an estimation of the two components of a causal model: measurement and structural models. The measurement model was measured using Confirmatory Factor Analysis (CFA) to test whether the constructs have the sufficient reliability and validity. The structural model is used to investigate the strength and direction of the relationship between the theoretical constructs. In this study, we used AMOS 7.0 to assess the measurement and the structural model (Arbuckle, 2006; B. M. Byrne, 2001).

#### 4.3. The Measurement Model

The test of the measurement model includes the estimation of reliability analysis, validity analysis and model fitness. CFA reliability analysis includes item reliability, composite reliability and average variance extracted. Validity analysis includes convergent and discriminant validity. Meanwhile, the measure used to assess the model fit includes  $\chi^2/d.f.$  ratio, RMR, RMSEA, GFI, AGFI, NFI, TLI, and CFI.

##### 4.3.1 Reliability Analysis

The initial phase of the evaluation indicated that some items should be removed. In the beginning, our result showed that there are items of attitude, perceived network externalities and interpersonal norm have item reliability below the acceptable value of 0.5 (Hair, Anderson, Tatham, & Black, 1992). Thus, we removed these items from our model. We provide the first result of CFA reliability analysis in appendix.

Table 8 Final CFA reliability analysis

Item	Measurement Item	Item Reliability	Composite Reliability
PEOU1	Using YouTube to share videos enables me to accomplish my work/learning/life more quickly.	0.666	0.8693
PEOU2	Using YouTube to share videos would improve my work/learning/life performance.	0.738	
PEOU3	Using YouTube to share videos would enhance my work/learning/life effectiveness.	0.664	
PU1	It is easy to learn to use YouTube's sharing video website.	0.586	0.8702
PU2	It is easy for me to become skillful at using YouTube in sharing video.	0.780	
PU3	It is easy to use YouTube's sharing video website.	0.709	
AT2	I feel good about using YouTube to share videos.	0.577	0.7116
AT3	Overall, my attitude towards using YouTube to share videos is favorable.	0.528	
PNE1	Most people are using YouTube to share their videos.	0.589	0.7698
PNE3	There will be more people use YouTube to share their videos.	0.663	
IN1	My friends think that I should use YouTube to share my videos.	0.771	0.8786
IN2	My colleagues think that I should use YouTube to share my videos.	0.796	
SN1	I read/saw news reports that using YouTube was a good way to share videos.	0.509	0.8112
SN2	The popular press depicted a positive sentiment for using YouTube to share videos.	0.701	
SN3	Expert opinions depicted a positive sentiment for using YouTube to share videos.	0.560	

Table 8 Final CFA reliability analysis (con't)

Item	Measurement Item	Item Reliability	Composite Reliability
BI1	I have the intention of using YouTube to share videos.	0.690	0.8877
BI2	I will frequently use YouTube to share videos in the future.	0.881	
BI3	I will strongly recommend others to use YouTube to share video in the future.	0.607	

The retained items were shown in Table 8. Item reliability ranged from 0.509 to 0.881. Composite reliability was computed to measure the internal consistency of the measurement model. As it is shown in Table 8, all composite reliabilities exceeded the recommended value, 0.6 (RP Bagozzi & Yi, 1988).

#### 4.3.2 Convergent Validity and Discriminant Validity

Convergent validity includes analysis of factor loading and average variance extracted. Convergent validity is demonstrated when items load highly. The loading coefficient for all items were above the recommended loadings of 0.7 (Fornell & Larcker, 1981).

Table 9 Convergent Validity

Item	Factor Loading	Average Variance Extracted
PEOU1	0.8161	0.6894
PEOU2	0.8591	
PEOU3	0.8149	
PU1	0.7655	0.6917
PU2	0.8832	
PU3	0.8420	
AT2	0.7596	0.5525
AT3	0.7266	
PNE1	0.7675	0.626
PNE3	0.8142	
IN1	0.8781	0.7835
IN2	0.8922	
SN1	0.7134	0.5900
SN2	0.8373	
SN3	0.7483	
BI1	0.8307	0.7260
BI2	0.9386	
BI3	0.7791	

Convergent validity is also adequate when all constructs have an average variance extracted (AVE) of at least 0.5 (Fornell & Larcker, 1981). All the value of AVE was also above the suggested threshold. The complete report for convergent validity is shown in Table 9.

To assess discriminant validity, we use the square root of AVE guideline. We checked whether the square root of AVE for each construct is greater than the correlation values of the construct with other constructs (Fornell & Larcker, 1981). Table 10 shows the inter-correlation between the constructs. Diagonal elements are the square root of AVE for that construct.

Table 10 Inter-correlation of constructs

	PEOU	PU	AT	PNE	IN	SN	BI
PEOU	<b>0.8303</b>						
PU	0.279	<b>0.8317</b>					
AT	0.575	0.341	<b>0.7433</b>				
PNE	0.510	0.193	0.803	<b>0.7912</b>			
IN	0.300	0.289	0.271	0.272	<b>0.8851</b>		
SN	0.426	0.370	0.629	0.478	0.535	<b>0.7681</b>	
BI	0.566	0.352	0.676	0.560	0.445	0.586	<b>0.8521</b>

As Table 10 shows, correlation between PNE and AT (0.803) is greater than the square root of its AVE (0.7433). Even though according to Kline (2005), value of correlations of the constructs under 0.85 are not categorized as high (Kline, 2005), but we decided to do another guideline of discriminant validity, namely pairwise discriminant analysis, in order to break of the doubt of the first test's result.

Pairwise discriminant analysis is to compare the original CFA model with other alternative measurement models, which included every possible combination of combining two constructs into one (D. Gefen, et al., 2003). Discriminant validity is demonstrated if chi-square is significantly lower for the original CFA model, as this suggests that the better model was the one in which the two constructs were viewed as distinct (but correlated) factors (Anderson & Gerbing, 1988; R Bagozzi & Phillips, 1982). In this case, since combining two constructs adds six degree of freedom to the new model, the chi-square differences between the original CFA and any alternative model should be at least 22.46 at p-value smaller than 0.001. Table 11 shows that the minimum chi-square difference was 39.5. Therefore, the test of this discriminant validity was met.

Table 11 Pairwise discriminant analysis of constructs

Model	$X^2_{df}$	$X^2$ difference from original
Original CFA Model	$X^2_{df} = 214.2$	
Combining intention with perceived usefulness	$X^2_{df} = 673.8$	459.6
Combining intention with perceived-ease-of-use	$X^2_{df} = 538.9$	324.7
Combining intention with perceived network externalities	$X^2_{df} = 389.1$	174.9
Combining intention with interpersonal norm	$X^2_{df} = 518.0$	303.8
Combining intention with social norm	$X^2_{df} = 441.4$	227.2
Combining intention with attitude	$X^2_{df} = 349.2$	135
Combining attitude with perceived usefulness	$X^2_{df} = 514.7$	300.5
Combining attitude with perceived-ease-of-use	$X^2_{df} = 404.3$	190.1
Combining attitude with perceived network externalities	$X^2_{df} = 253.7$	39.5
Combining attitude with interpersonal norm	$X^2_{df} = 526.5$	312.3
Combining attitude with social norm	$X^2_{df} = 364.1$	149.9
Combining perceived usefulness with perceived-ease-of-use	$X^2_{df} = 706.8$	492.6
Combining perceived usefulness with perceived network externalities	$X^2_{df} = 535.1$	320.9
Combining perceived usefulness with interpersonal norm	$X^2_{df} = 587.7$	373.5
Combining perceived usefulness with social norm	$X^2_{df} = 640.6$	426.4
Combining perceived ease-of-use with perceived network externalities	$X^2_{df} = 415.4$	201.2
Combining perceived ease-of-use with interpersonal norm	$X^2_{df} = 576.9$	362.7
Combining perceived ease-of-use with social norm	$X^2_{df} = 565.4$	351.2



Table 11 Pairwise discriminant analysis of constructs (con't)

Model	$X^2_{df}$	$X^2$ difference from original
Combining perceived network externalities with interpersonal norm	$X^2_{df} = 573.4$	359.2
Combining perceived network externalities with social norm	$X^2_{df} = 408.0$	193.8
Combining interpersonal norm with social norm	$X^2_{df} = 456.8$	242.6

Difference of  $X^2$  at  $df = 6$  and P-value  $< 0.001$  is at least 22.46.

The result shows that all of the difference of  $X^2$  is bigger than 39.5



### 4.3.3 Model fit analysis

The measure used to assess the model fit includes the  $\chi^2/d.f.$  ratio, Root Mean Square Residual (RMR), Root Mean Square Error of Approximation (RMSEA), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Normed Fit Index (NFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI). We did not use chi-square and degree of freedom because the sample size in this study is commonly considered big (>300), the chi-square value ( $\chi^2=214.2$ ) and related p-value ( $p<0.001$ ) are neglected for their over sensitivity to the sample size (Joreskog & Sorbom, 1993).

Table 12 provides the summary of overall fits of model. All the criteria met the recommended level; consequently, the proposed model provided a suitable fit. GFI was 0.936, above the cut-off value of 0.8 (Seyal, Rahman, & Rahim, 2002) and AGFI was 0.904, above the cut-off value of 0.8 (D Gefen, Straub, & Boudreau, 2000).

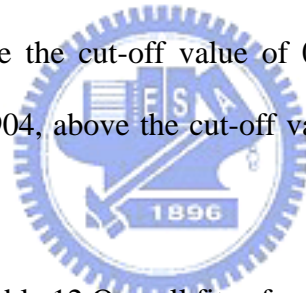


Table 12 Overall fits of model

Fit Index	Recommended Criteria	Results	Suggested by authors
$\chi^2/d.f.$	<3	1.879	(Bentler & Bonett, 1980)
GFI	>0.8	0.936	(Seyal, et al., 2002)
AGFI	>0.8	0.904	(D Gefen, et al., 2000)
NFI	>0.9	0.938	(Bentler & Bonett, 1980)
TLI	>0.9	0.960	(Bentler & Bonett, 1980)
CFI	>0.9	0.970	(Bentler & Bonett, 1980; Bhattacharjee, 2002; L. Hu & Bentler, 1999)
RMSEA	<0.08	0.051	(Hair, et al., 1992)
RMR	<0.05	0.027	(L. Hu & Bentler, 1995)

NFI and TLI were 0.938 and 0.960, respectively, all above the cut-off

values of 0.9 (Bentler & Bonett, 1980). CFI was 0.970, also above the cut-off value of 0.9 (Bentler & Bonett, 1980; Bhattacharjee, 2002; L. Hu & Bentler, 1999). RMSEA was 0.051, below the 0.08 cut-off, indicating a satisfactory model fit (L. Hu & Bentler, 1999). In addition, we investigated the RMR index, which represent the badness of index, based on the fitted residual (B. Byrne, 1998). In this study, the RMR was 0.027, below the 0.05 cut-off (L. Hu & Bentler, 1995).

#### 4.4. Tests of the Structural Model

Table 13 and Figure 5 give the result of structural equation modeling analysis. We tested the hypothesized positive relationship among the research variables. According to Alwin & Hauser (1975), the path coefficient of an exogenous variable is the direct effect of that variable on the endogenous variable. In addition, an indirect effect represents those effects mediated by the intervening variables between the cause and effect of interest in a model (Alwin & Hauser, 1975).

Table 13 Result of structural modeling analysis

Path	Path coefficient	Standard error	P-value
PEOU → AT	0.608	0.063	0.000 ***
PEOU → PU	0.300	0.058	0.000 ***
PU → AT	0.166	0.06	0.008 **
PU → BI	0.070	0.045	0.175
AT → BI	0.427	0.064	0.000 ***
PNE → BI	0.178	0.057	0.004 **
IN → BI	0.183	0.043	0.002 **
SN → BI	0.183	0.059	0.007 **

\*\* P-value <0.01

\*\*\* P-value <0.001

Table 14 provides the result of direct and indirect effects of this study. Total effect is the sum of direct and indirect effect of a variable on another variable. For example in this case, perceived usefulness has direct effect on intention to use of 0.07 and indirect effect of 0.071, resulting total effect of perceived usefulness on intention to use of 0.141.

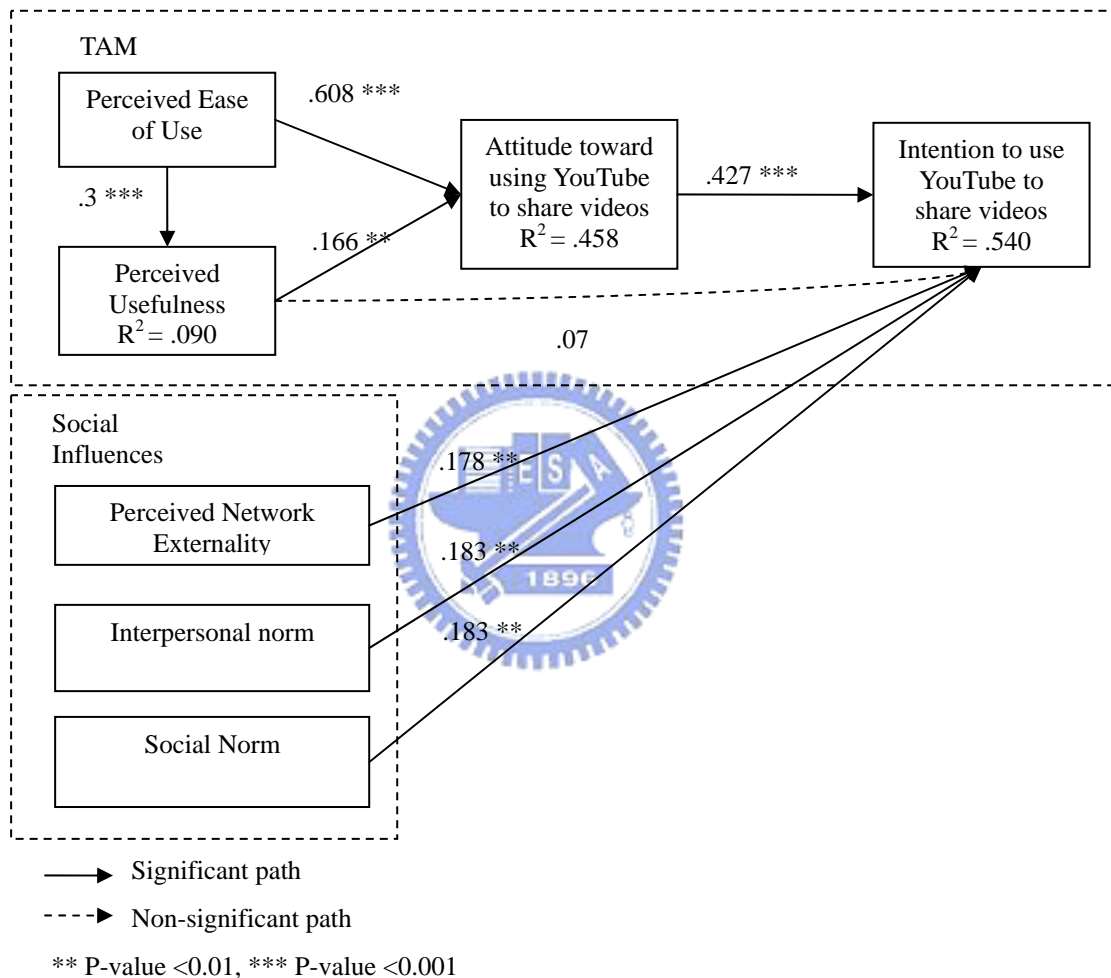


Figure 5 Result of structural modeling analysis

In TAM model, the results showed that perceived ease-of-use had significant effect on attitude. Its direct effect was 0.608 and indirect effect through the intervening variable of perceived usefulness was 0.0498. Thus, the total effect of perceived ease-of-use on attitude was 0.6578. Effect from perceived ease-of-use to

perceived usefulness was  $\beta=0.3$  with  $p<0.001$ . The significant factors to attitude are not only perceived ease-of-use, but also perceived usefulness. We can see from the result that perceived usefulness has significant effect on attitude ( $\beta=0.166$ ,  $p<0.001$ ). These results supported our hypothesis 1, 2 and 3. Both paths from perceived-ease-of-use and perceived usefulness to attitude accounted for 45.8 % of the variance in attitude.

As we can see from the result, hypothesis 4 was not supported; the path from perceived usefulness to intention to use was not significant ( $\beta=0.07$ , *ns*). Meanwhile, as hypothesized, Attitude was positively related to intention to use ( $\beta=0.427$ ,  $p<0.001$ ). Therefore, hypothesis 5 was supported.

Table 14 Effects on intention to use YouTube to share videos

Construct	Direct effects	Indirect effects	Total effects
Perceived Ease of Use		0.260 0.021 0.021	0.302
Perceived Usefulness	0.070	0.071	0.141
Attitude	0.427 ***		0.427
Perceived Network Externalities	0.178 **		0.178
Interpersonal Norm	0.183 **		0.183
Social Norm	0.183 **		0.183

\*\* P-value <0.01

\*\*\* P-value <0.001

We need to give note here that even we did not set perceived ease-of-use to directly relate to intention, but we can see from Table 14 that Perceived ease-of-use has indirect effects on intention to use with total effect of 0.302. Mean while, perceived usefulness, with the direct and indirect effects, only had total effects of 0.141 on intention to use YouTube to share videos.

Table 15 Result of hypotheses test

Research Hypotheses	Statement of Research Hypotheses	Results
H1	Perceived ease of use is positively related to attitude toward using YouTube to share videos.	Supported
H2	Perceived ease of use is positively related to perceived usefulness.	Supported
H3	Perceived usefulness is positively related to attitude toward using YouTube to share videos.	Supported
H4	Perceived usefulness is positively related to Intention to use YouTube to share videos.	Not supported
H5	Attitude toward using YouTube to share videos is positively related to Intention to use YouTube to share videos.	Supported
H6	Perceived network externality is positively related to Intention to use YouTube to share videos.	Supported
H7	Interpersonal norm is positively related to Intention to use YouTube to share videos.	Supported
H8	Social norm is positively related to Intention to use YouTube to share videos.	Supported

All factors from social influence, including perceived network externalities, interpersonal norm and social norm, have significant effects on intention to use ( $\beta=0.178$ ,  $p<0.01$ ,  $\beta=0.183$ ,  $p<0.01$ ,  $\beta=0.183$ ,  $p<0.001$ , respectively). Therefore, hypotheses 6, 7 and 8 were also supported. The model accounted for 54% of variance in intention to use. We provided the summary of hypotheses test's result in Table 15.

#### 4.5. Result of Group Analysis: Gender Comparison

After analyzing the data wholly, we analyzed by gender differences. The result of gender comparison fits of model was provided in Table 16. All the fit index of male

group is in the acceptable area. The  $\chi^2/d.f.$  ratio was 1.628. GFI and AGFI were 0.911 and 0.867, respectively, above the cut-off value of 0.8. NFI, TLI and CFI were 0.914, 0.952 and 0.964, respectively, all above the cut-off value of 0.9. RMSEA was 0.055, below the recommended cut-off value of 0.08. RMR was 0.031, below the cut-off value of 0.05

Table 16 Gender comparison fits of model

Fit Index	Recommended Criteria	Overall Results	Gender	
			Male (N=206)	Female (N=135)
$\chi^2/d.f.$	<3	1.879	1.628	1.375
GFI	>0.8	0.936	0.911	0.891
AGFI	>0.8	0.904	0.867	0.836
NFI	>0.9	0.938	0.914	0.899
TLI	>0.9	0.960	0.952	0.959
CFI	>0.9	0.970	0.964	0.969
RMSEA	<0.08	0.051	0.055	0.053
RMR	<0.05	0.027	0.031	0.035

In female group, we found aside from NFI that is slightly under the recommended cut-off value, all the value was still in the acceptable area. The  $\chi^2/d.f.$  ratio was 1.375. GFI and AGFI were 0.891 and 0.836, respectively, above the cut-off value of 0.8. NFI was 0.899, slightly below the recommended cut-off value of 0.9. TLI and CFI were 0.959 and 0.969, respectively, all above the cut-off value of 0.9. RMSEA was 0.053, below the recommended cut-off value of 0.08. RMR was 0.035, below the cut-off value of 0.05

Table 17 shows the result of path coefficient comparison by gender. The direct path coefficient from perceived ease-of-use to attitude for males was significantly larger than females ( $\beta=0.646, p<0.001, \beta=0.556, p<0.001$ ). With perceived usefulness

as the intervening variable, perceived ease-of-use indirectly affects attitude. The values of these indirect effects were 0.03 for male and 0.069 for female. Therefore total effect from Perceived ease-of-use to attitude was 0.676 and 0.625 for male and female, respectively. Hypothesis 1 was by far supported by the result in both males and females groups.

Table 17 Result of structural modeling analysis: grouping by gender

Research Hypotheses	Path	Male		Female	
		Coefficient	P-value	Coefficient	P-value
H1	PEOU → AT	0.646	0.000 ***	0.556	0.000 ***
H2	PEOU → PU	0.337	0.000 ***	0.222	0.032 *
H3	PU → AT	0.090	0.252	0.311	0.004 **
H4	PU → BI	0.016	0.806	0.117	0.206
H5	AT → BI	0.353	0.002 **	0.546	0.000 ***
H6	PNE → BI	0.291	0.006 **	0.069	0.482
H7	IN → BI	0.271	0.002 **	0.096	0.179
H8	SN → BI	0.079	0.439	0.293	0.003 **

\* P-value <0.05

\*\* P-value <0.01

\*\*\* P-value <0.001

As it was showed by the result, path coefficient from perceived ease-of-use to attitude was significant for both males and females ( $\beta=0.337$ ,  $p<0.001$ ,  $\beta=0.222$ ,  $p<0.05$ ). Hypothesis 2 was also supported. However, it was different between male and female group for the result of hypothesis 3. While perceived usefulness did not have significant effect on attitude to use in male group ( $\beta=0.09$ , *ns*), but on the other hand, perceived usefulness had significant effect on attitude to use in female group ( $\beta=0.311$ ,  $p<0.01$ ). Therefore, hypothesis 3 was supported by females but not by males group.



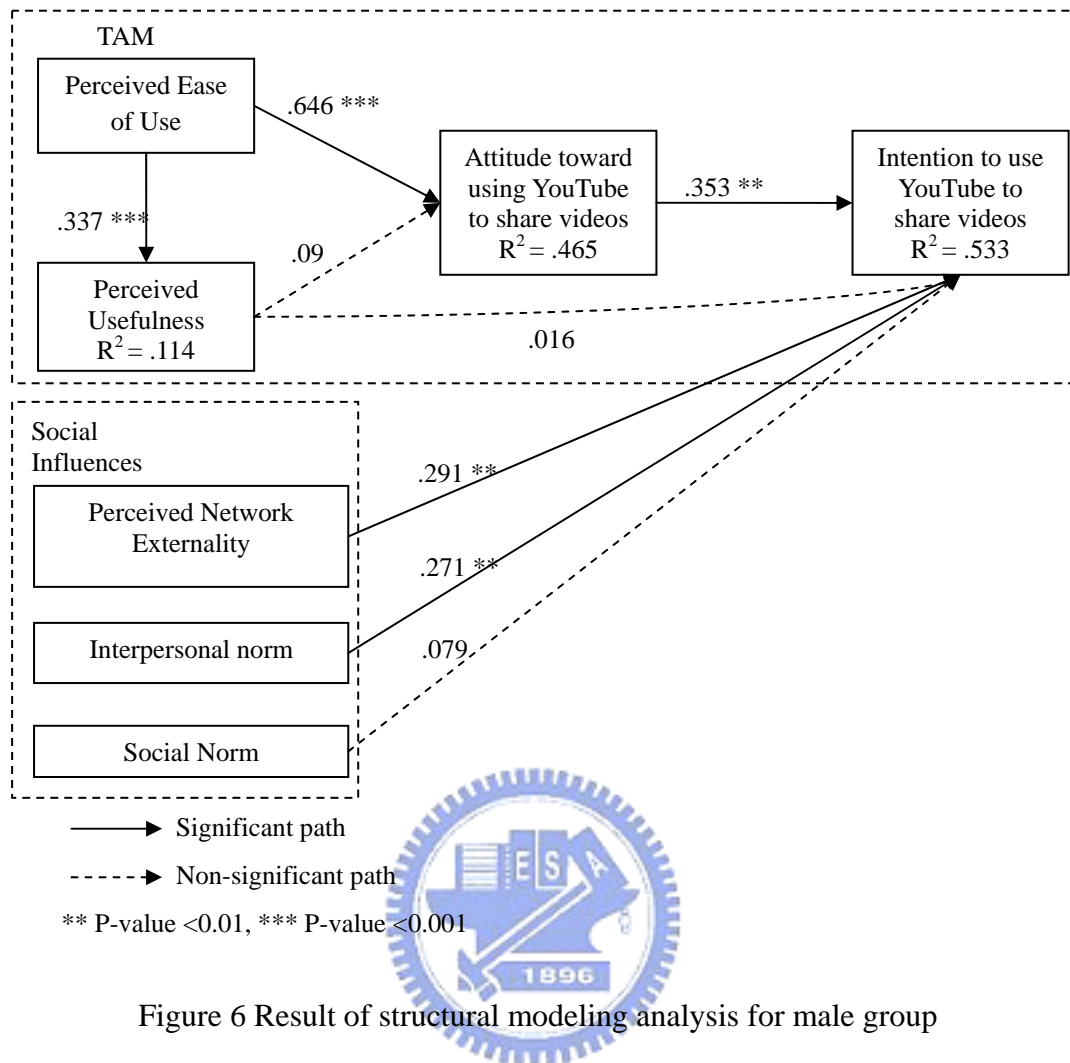


Figure 6 Result of structural modeling analysis for male group

Path coefficient from perceived usefulness to intention to use was not significant for both male and female group ( $\beta=0.016$ , *ns*,  $\beta=0.117$ , *ns*, respectively). Thus hypothesis 4 was not supported for both groups. Path coefficient from attitude to intention for female was significantly larger than that for males with value was  $\beta=0.353$ ,  $p<0.01$  for male and  $\beta=0.546$ ,  $p<0.001$  for female. Therefore, hypothesis 5 was supported.

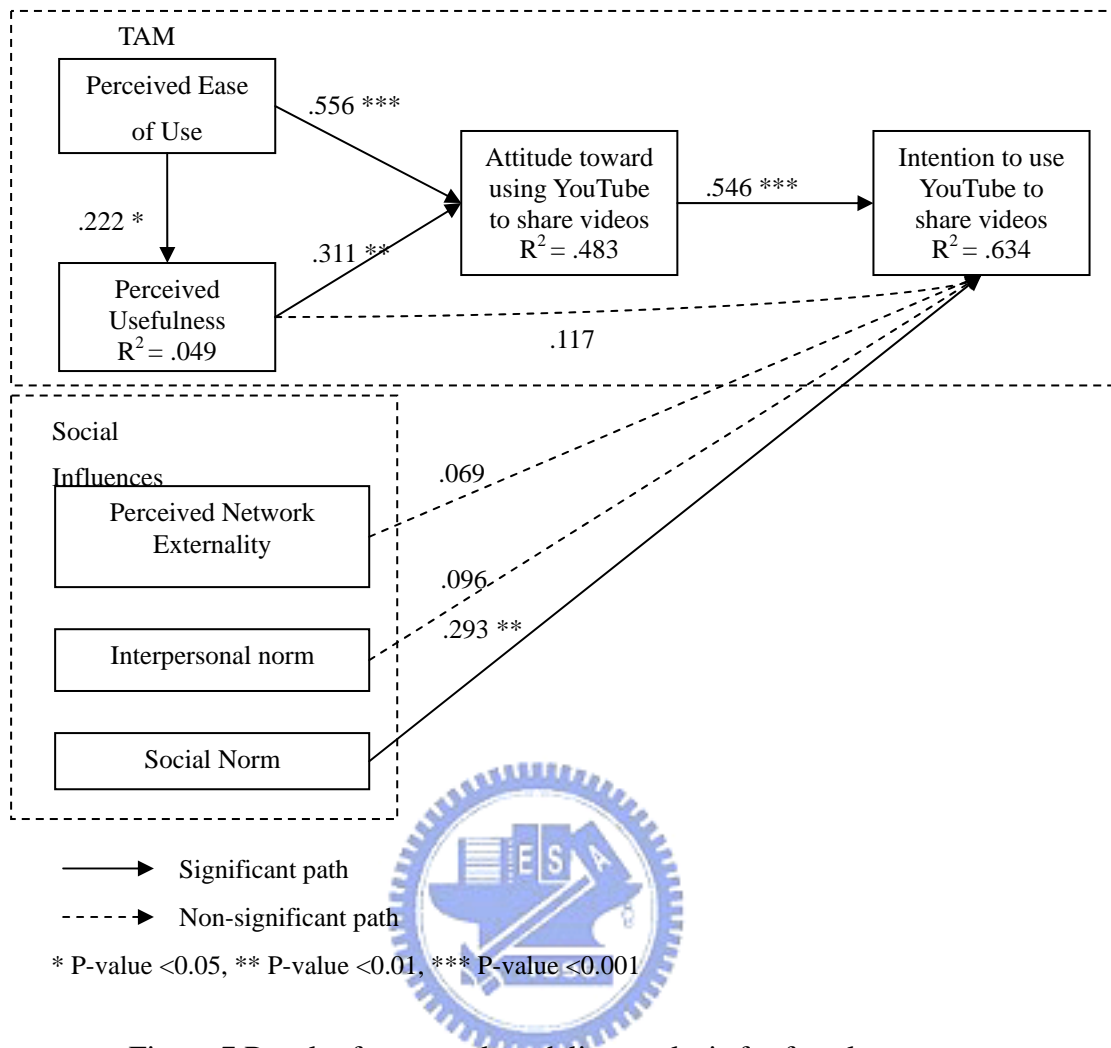


Figure 7 Result of structural modeling analysis for female group

It was really interesting to see the result of factors in social influence. Male group had contradictory result with female group. It can be seen from the result that perceived network externalities and interpersonal norm had significant effect on intention in male group ( $\beta=0.291, p<0.01, \beta=0.271, p<0.01$ , respectively). Hypothesis 6 and 7 were supported by males. On the contrary, perceived network externalities and interpersonal norm did not have significant effect on intention in female group ( $\beta=0.069, ns, \beta=0.096, ns$ , respectively). Therefore, hypothesis 6 and 7 were not supported by females. Finally, social norm had no significant effect on intention in male group ( $\beta=0.079, ns$ ), thus, hypothesis 8 was not supported by male group.

Meanwhile, in female group, social norm had no significant effect on intention to use ( $\beta=0.293, p<0.001$ ). Table 18 provides the summary of hypotheses' result test based on gender.

Table 18 Result of hypotheses test: grouping by gender

Research Hypotheses	Statement of Research Hypotheses	Male	Female
H1	Perceived ease of use is positively related to attitude toward using YouTube to share videos.	Supported	Supported
H2	Perceived ease of use is positively related to perceived usefulness.	Supported	Supported
H3	Perceived usefulness is positively related to attitude toward using YouTube to share videos.	Not Supported	Supported
H4	Perceived usefulness is positively related to Intention to use YouTube to share videos.	Not supported	Not supported
H5	Attitude toward using YouTube to share videos is positively related to Intention to use YouTube to share videos.	Supported	Supported
H6	Perceived network externality is positively related to Intention to use YouTube to share videos.	Supported	Not Supported
H7	Interpersonal norm is positively related to Intention to use YouTube to share videos.	Supported	Not Supported
H8	Social norm is positively related to Intention to use YouTube to share videos.	Not Supported	Supported

## CHAPTER 5 CONCLUSION AND IMPLICATIONS

The purpose of this chapter was to explain the conclusion of the previous chapter's analysis result. We organize this chapter into four sub-chapters: conclusion, implications for academic researchers and practitioners, limitation, and suggestion for further research.

### 5.1. Research Findings and Conclusion

Throughout this study we attempted to build a model that explains the factors influencing users' intention in choosing YouTube to share videos. Based on previous studies, we examined Technology Acceptance Model and social influence theory that are fundamental for video streaming application acceptance. We concluded our study on the basis of the research purpose as explained in the first chapter.

**Research purpose 1.** To examine factors from Technology Acceptance Model that are influencing user's intention in using YouTube to share videos

#### 1. Attitude

As it has been explained in the previous chapter, attitude is one of those factors influencing users' intention to use. We can see in Figure 5 that path coefficient from attitude to intention to use YouTube to share videos is positive and significant. Furthermore, attitude is the greatest effect on intention to use. This means the more users have positive feeling about YouTube, the more the users intend to choose YouTube to share videos.

## 2. Perceived usefulness

Figure 5 shows us, path coefficient from perceived usefulness to intention is not significant. Perceived usefulness had no effect on the intention to use, but it directly affected attitude. It was purposed to be one of the factors influencing users' intention to use YouTube to share videos. People usually want to use a system or technology if they found it is useful. However our results revealed that perceived usefulness did not affect users' intention. One possible explanation is that users of YouTube share videos because they want to kill time, to fill up their leisure time, and it is only a form of pursuing their interest. This result is inline with previous studies (C. L. Hsu & Lin, 2008; Moon & Kim, 2001), which argued that perceived usefulness played a critical role only in work-related environments.

## 3. Perceived ease-of-use

As we can see in Figure 5, path coefficient from perceived ease-of-use to attitude is positive and significant. Perceived ease-of-use has the most significant effect on attitude. We can conclude that the easier or the simpler the way to use YouTube to share videos is, the more positive the users feel about YouTube. Indeed, an easy-to-use interface could influence people's preference while difficulties can create user resistance.

**Research purpose 2.** To examine factors from social influence that is influencing user's intention in choosing YouTube to share videos

## 1. Perceived network externalities

Figure 5 showed path coefficient from perceived network externalities to

intention to use is positive and significant. Users perceived that network externality is an important determinant of intention to use YouTube to share videos. This represents the more people use YouTube to share videos, the more users intend to choose YouTube to share videos. Users are likely to select a technology or system that the majority of them already favor, because the increase in the number of users gives a higher utility (Katz & Shapiro, 1985, 1994).

## 2. Interpersonal norm

Figure 5 shows path coefficient from interpersonal norm to intention to use is positive and significant. Our findings suggest that users' intention to use YouTube to share videos can be shaped by the prior experience of early adopters. This implies the more familiar people of users suggest them to use YouTube to share videos, the more the users intend to choose YouTube to share videos.

## 3. Social norm

We can also see in Figure 5, path coefficient from social norm to intention to use is positive and significant. This finding was in line with some theories such as TRA and TPB. The users are concerned about what mass media and experts reported about YouTube. Positive reports and publications from mass media and expert about YouTube will bring stronger intention of users in using YouTube to share videos.

**Research purpose 3.** To examine factors from TAM and social influence affecting user's intention in choosing YouTube to share video based on gender comparison

1. Attitude

Table 17 provides the path coefficient result of two different groups of users: male and female users. The result showed no matter what the user's gender is, attitude relates positively with intention to use. This indicates the more users feel have positive feeling about YouTube, the more the users intend to choose YouTube to share videos.

2. Perceived usefulness

As we can see in table 17, path coefficient from perceived usefulness to intention are not significant for these two groups, similar with result of whole data analysis. This indicates usefulness is not an important determinant of users' intention on using YouTube to share videos. On the other hand, path coefficient from perceived usefulness to attitude has different result between these two groups. In male group, the path is not significant. Unlike in the male group, the path is positive and significant in female group. So the more useful YouTube to users is, the more positive female users will feel about YouTube.

3. Perceived ease-of-use

In both male and female group, the path coefficient from perceived ease-of-use to attitude is positive and significant. This implies the easier or the simpler the way to use YouTube to share videos is, the more positive male and female users feel about YouTube.

#### 4. Perceived network externalities

Based on the result in table 17, path coefficient from perceived network externalities is positive and significant for male users but not significant for female users. This result implies the more people use YouTube to share videos, the more male users intend to choose YouTube to share videos. But unlike the male users, influences from familiar people to use YouTube to share videos do not affect female users' intention to use YouTube to share videos.

#### 5. Interpersonal norm

Similar with perceived network externalities, path coefficient from interpersonal norm is positive and significant for male users but is not significant for female users. This result implies the more familiar people of male users suggest them to use YouTube to share videos, the more male users intend to choose YouTube to share videos. But for female users, more familiar people of female users suggest them to use YouTube to share videos does not influence female users' intention to use YouTube to share videos.

#### 6. Social norm

Result of social norm is contradictory from other social influence factors. Path coefficient from social norm is positive and significant for female users but is not significant for male users. This implies the more the mass media and experts publish positive judgments about YouTube, the more female users intend to choose YouTube to share videos. But for male users, good words from mass media and experts do not influence male users' intention to use YouTube to share videos.



## 5.2. Implications

This study emerges that the intention to use YouTube to share videos can be predicted by TAM and social influence ( $R^2=0.54$ ). The model was evaluated using data collected from more than 300 video sharing users of YouTube. Several implications can be drawn from our findings.

### 5.2.1. Implication for academic researchers

This study contributes to theoretical understanding of the factors that drive the usage of online video streaming website especially in video sharing activity in which substantially differed from previous study in knowledge and information sharing field. On one hand, we test the applicability of TAM from the platform point of view and, at the same time, we also test the factors of social influence to understand the social and psychological factors that make users to have stronger intention to use YouTube to share video, while on the other hand, we fill the need to do examination of intention to use a particular video sharing website that is rarely found before.

### 5.2.2. Implication for business practitioners

From a managerial standpoint, the findings of this study reveals, in order to increase users' intention to use YouTube to share video, it is important to stimulate and to improve a positive attitude toward using this website. In this connection, positive perception of perceived ease-of-use is crucial, meanwhile perceived usefulness may not be important for users. A logical implication is that users of YouTube strongly emphasize on easiness to use the website to share their videos. Managers can assign web designers to design user interface which can increase perception of ease-of use to cultivate positive attitude, for example, website with user friendly interface, easy to upload and easy to manage functions.

YouTube's co-founders apparently have realized this issue from the very beginning. According to them, YouTube are 100% focusing in creating platform that is the easiest to use (TaipeiTimes, 2007).

Our findings also revealed that social and psychological mechanism generally played significant role for users to perform stronger intention. The implication of this finding is that, marketing managers of video sharing websites have to understand what they should do to attract more users to use their websites to share videos. In this case, the effect of gender on social influence yields interesting implication for marketing communication. Size of network and invitation from familiar people to use the website to share videos need to be especially communicated to male users, while for female users, the focus should be more on publishing positive reports from mass media or testimonial (opinion) from experts.



### 5.3. Limitations

The results of our study need to be interpreted with caution due to the limitations of research method. The first limitation is the samples were self-selected from volunteers via online-based convenient sampling. Second, the respondents were from Taiwan. Culture and lifestyle may differ among countries. Third, there are only a limited set of variables were examined as the factors of intention to use YouTube to share videos; all suggested by technology acceptance and social influence literature. There can possibly be other additional factor, such as perceived benefit since YouTube has launched its reward program: The YouTube Partner Program (YouTube, 2007).

### 5.4. Direction for Future Research

The purpose of this section is to briefly outline a series of topic for future

research. The first is the determinant of intention to use YouTube. Additional of other factors such as perceived benefit and system quality is appropriate to the present model. As it is stated in previous sub-chapter, YouTube has started to give reward to the users; we can add this as one of the determinants. Besides, we can examine how external variable such as system quality including how long a video is uploaded, how the website organized the account of users, will influence beliefs of users. Second, in the future research we can survey respondents from different countries and bring out cross-cultural comparisons.



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Appendix 1 Global Top Websites (per November 2008)

Rank	Site	Monthly Visitors	Monthly Pageviews
1	yahoo.com	239,700,000	24,909,000,000
2	google.com	266,800,000	13,894,000,000
3	youtube.com	183,300,000	19,286,000,000
4	live.com	143,300,000	8,314,000,000
5	facebook.com	81,200,000	11,638,000,000
6	msn.com	148,700,000	24,048,000,000
7	myspace.com	101,300,000	14,315,000,000
8	wikipedia.org	159,400,000	2,613,400,000
9	blogger.com	104,500,000	1,960,400,000
10	yahoo.co.jp	31,600,000	8,239,000,000
11	baidu.com	50,300,000	3,322,600,000



Appendix 2 Questionnaire – English Version

Thank You for taking the time to complete our questionnaire which titled “Why do people choose YouTube to share videos”. The research project’s aim is to identify the factors that influence users’ intention in using YouTube to share their videos. All correspondence, including the survey data will be kept confidential. Once again, thank you very much for your help and corporation.

National Chiao Tung University – Institute of  
Information Management, College of Management

Advisor : Chyan Yang

Student : Suyanti Tan

Email : suyantichang.iim95g@nctu.edu.tw

Your E-mail address:

I. Filtering Question

In this survey, our target respondents are users who have ever used YouTube to share their videos before. So before starting to complete the questionnaire, please answer the question below:

Have you ever used YouTube to share your videos?

- Yes (please continue to the next section)
- No (please stop here and submit the questionnaire)

II. Main Questions

Please choose only one answer of each question based on your experience in using YouTube to share videos.

Perceived Usefulness

1. Using YouTube to share videos enables me to accomplish my work/learning/life more quickly.

- Strongly agree
- Agree
- Neither agree or disagree
- Disagree
- Strongly disagree

2. Using YouTube to share videos would improve my work/learning/life performance.

- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree

3. Using YouTube to share videos would enhance my work/learning/life effectiveness.

- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree

Perceived Ease of Use

4. It is easy to learn to use YouTube's sharing video website.

- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree

5. It is easy for me to become skillful at using YouTube in sharing video.

- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree

6. It is easy to use YouTube's sharing video website.

- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree

Attitude

7. I like to use YouTube to share my videos.

- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree

8. I feel good about using YouTube to share video.

- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree

9. Overall, my attitude towards using YouTube to share video is favorable.
- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree

Perceived Network Externality

10. Most people are using YouTube to share their videos.
- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree
11. The number of people using YouTube to share their videos will increase the value of my videos.
- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree
12. There will be more people use YouTube to share their videos.
- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree

Interpersonal Norm

13. My friends think that I should use YouTube to share my videos.
- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree
14. My colleagues think that I should use YouTube to share my videos.
- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree
15. My family thinks that I should use YouTube to share my videos.
- Strongly agree    Agree    Neither agree or disagree    Disagree    Strongly disagree

Social Norm
<p>16. I read/saw news reports that using YouTube was a good way to share videos.</p> <p><input type="radio"/> Strongly agree   <input type="radio"/> Agree   <input type="radio"/> Neither agree or disagree   <input type="radio"/> Disagree   <input type="radio"/> Strongly disagree</p> <p>17. The popular press depicted a positive sentiment for using YouTube to share videos.</p> <p><input type="radio"/> Strongly agree   <input type="radio"/> Agree   <input type="radio"/> Neither agree or disagree   <input type="radio"/> Disagree   <input type="radio"/> Strongly disagree</p> <p>18. Expert opinions depicted a positive sentiment for using YouTube to share videos.</p> <p><input type="radio"/> Strongly agree   <input type="radio"/> Agree   <input type="radio"/> Neither agree or disagree   <input type="radio"/> Disagree   <input type="radio"/> Strongly disagree</p>
Behavioral Intention
<p>19. I have the intention of using YouTube to share videos.</p> <p><input type="radio"/> Strongly agree   <input type="radio"/> Agree   <input type="radio"/> Neither agree or disagree   <input type="radio"/> Disagree   <input type="radio"/> Strongly disagree</p> <p>20. I will frequently use YouTube to share videos in the future.</p> <p><input type="radio"/> Strongly agree   <input type="radio"/> Agree   <input type="radio"/> Neither agree or disagree   <input type="radio"/> Disagree   <input type="radio"/> Strongly disagree</p> <p>21. I will strongly recommend others to use YouTube to share video in the future.</p> <p><input type="radio"/> Strongly agree   <input type="radio"/> Agree   <input type="radio"/> Neither agree or disagree   <input type="radio"/> Disagree   <input type="radio"/> Strongly disagree</p>

### III. Demographic Questions

22. My gender:
- Male  Female
23. My age:
- Under 21  21-30  31-40  41-50  
 51-60  More than 60
24. My educational background:
- Elementary School  Junior High School  High School  
or below
- Bachelor's degree  Graduate degree
25. I have been using YouTube to share videos for:
- Less than 6 months  6-12 months  More than 1 year
26. Total numbers of videos I have shared using YouTube:
- Less than 11 videos  11-50 videos  51-100 videos  
 More than 100 videos
27. Average hours spent per day to use internet :
- Less than 1 hour  1-2 hours  3-4 hours  
 5-6 hours  More than 6 hours
28. Category of videos I shared using YouTube: (can choose more than one)
- |  |  |   |  |
|--|--|---|--|
| <input type="checkbox"/> How to &<br>style   | <input type="checkbox"/> People &<br>blogs       | <input type="checkbox"/> Comedy             | <input type="checkbox"/> Entertainment       |
| <input type="checkbox"/> Pets &<br>animals   | <input type="checkbox"/> Education               | <input type="checkbox"/> News &<br>politics | <input type="checkbox"/> Travel &<br>events  |
| <input type="checkbox"/> Autos &<br>vehicles | <input type="checkbox"/> Science &<br>technology | <input type="checkbox"/> Sports             | <input type="checkbox"/> Film &<br>animation |
| <input type="checkbox"/> Music               |  |   |  |

## Appendix 3 Questionnaire – Chinese Version

親愛的網友您好：

很高興您能抽空填寫這份問卷，在此先感謝您的熱心協助。這是一份有關「為甚麼人們選擇 YouTube 分享影片？」的學術研究。本研究的目標是探討影響網路使用者參與 YouTube 分享行為的主要因素。您所填的資料將僅供學術研究之用，絕對不會洩漏或挪為他用。

為了感激參與調查的您，本研究將會舉辦抽獎活動，準備了十二份精美小禮物〔分別贈送 7-11 裡卷 200 元兩張與 100 元十張〕提供給問卷填答完整的受測者。為了方便聯絡，希望您能夠提供方便聯繫的 E-mail。最後，再次感謝您的幫忙與合作。

國立交通大學資訊管理研究所

指導教授：楊千

研究生：張錦梅

Email：suyantichang.iim95g@nctu.edu.tw

請填寫您的 E-mail：

### I. 過濾題

本研究的研究對象是針對曾經使用過 YouTube 分享影片的使用者。所以在您開始填寫問卷之前，請您先回答以下問題：

您是否曾經使用過 YouTube 分享影片〔上載影片〕：

- 是〔請繼續作答〕
- 否〔問卷調查到此結束〕

### II. 問卷內容

請根據您個人使用 YouTube 分享影片的經驗作答（單選題）。

認知有用性

1. 使用 YouTube 分享影片能夠讓我盡快完成工作/學習/生活。
  - 非常同意
  - 同意
  - 普通
  - 不同意
  - 非常不同意
2. 使用 YouTube 分享影片能夠讓我提升工作/學習/生活的表現。
  - 非常同意
  - 同意
  - 普通
  - 不同意
  - 非常不同意
3. 使用 YouTube 分享影片能夠讓我提升工作/學習/生活的效率。
  - 非常同意
  - 同意
  - 普通
  - 不同意
  - 非常不同意



認知易用性

4. 對我而言，學習使用YouTube網站去分享影片是很簡單的。
- 非常同意     同意     普通     不同意     非常不同意
5. 對我而言，YouTube網站的操作方式很容易上手。
- 非常同意     同意     普通     不同意     非常不同意
6. 我能很容易地在 YouTube 網站上分享影片。
- 非常同意     同意     普通     不同意     非常不同意

態度

7. 我喜歡使用YouTube網站分享影片。
- 非常同意     同意     普通     不同意     非常不同意
8. 我對YouTube網站有好感。
- 非常同意     同意     普通     不同意     非常不同意
9. 總體而言，我對於使用 YouTube 分享影片的態度是正面的。
- 非常同意     同意     普通     不同意     非常不同意

網絡外部性

10. 我認為有很多人使用 YouTube 分享影片。
- 非常同意     同意     普通     不同意     非常不同意
11. 越多人使用 YouTube 網站能提升我所分享影片的價值。
- 非常同意     同意     普通     不同意     非常不同意
12. 我覺得會有越來越多人透過 YouTube 分享影片。
- 非常同意     同意     普通     不同意     非常不同意

Interpersonal Norm

13. 我的朋友們認為我應該使用 YouTube 去分享影片。
- 非常同意     同意     普通     不同意     非常不同意
14. 我的同事們認為我應該使用 YouTube 去分享影片。
- 非常同意     同意     普通     不同意     非常不同意

15. 我的家人認為我應該使用 YouTube 去分享影片。

- 非常同意     同意     普通     不同意     非常不同意

#### Social Norm

16. 我曾經看過新聞等其他媒體說 YouTube 是一種分享影片的好方式。

- 非常同意     同意     普通     不同意     非常不同意

17. 我認為某些知名的報章雜誌對於使用 YouTube 分享影片的說法是正面的。

- 非常同意     同意     普通     不同意     非常不同意

18. 我認為相關專家對於使用 YouTube 分享影片抱持著正面的看法。

- 非常同意     同意     普通     不同意     非常不同意

#### 行為意願

19. 我有意願再透過 YouTube 網站分享影片。

- 非常同意     同意     普通     不同意     非常不同意

20. 我將來會願意再分享影片於 YouTube 網站上。

- 非常同意     同意     普通     不同意     非常不同意

21. 我願意推薦其他人使用 YouTube 分享影片。

- 非常同意     同意     普通     不同意     非常不同意

### III. 基本資料填寫

22. 我的性別為：     男     女

23. 我的年齡為：

- 20 歲〔含以下〕     21-30 歲     31-40 歲     41-50 歲  
 51-60 歲     61 歲以上

24. 我目前的教育程度為：

- 國小〔含以下〕     國中     高中〔職〕  
 大學〔專〕     研究所〔含以上〕

25. 我使用 YouTube 多久了：
- 少於 6 個月       6-12 個月       超過 1 年
26. 在 YouTube 網站上，我所分享的影片數量：
- 少於 11 部       11-50 部       51-100 部
- 超過 100 部
27. 我平均一天花多少時間使用網路？
- 1 小時以下       1-2〔含〕小時       3-4〔含〕小時
- 5-6〔含〕小時       7 小時以上
28. 我曾經分享過的影片種類：〔可複選〕
- |                                 |                                |                                |                                |
|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> DIY 教學 | <input type="checkbox"/> 人物與網誌 | <input type="checkbox"/> 喜劇    | <input type="checkbox"/> 娛樂    |
| <input type="checkbox"/> 寵物與動物  | <input type="checkbox"/> 教育    | <input type="checkbox"/> 新聞與政治 | <input type="checkbox"/> 旅行與活動 |
| <input type="checkbox"/> 汽車與交通  | <input type="checkbox"/> 科學與科技 | <input type="checkbox"/> 運動    | <input type="checkbox"/> 電影與動畫 |
| <input type="checkbox"/> 工具     |                                |                                |                                |
| <input type="checkbox"/> 音樂     |                                |                                |                                |



Appendix 4 First Round Result of CFA reliability analysis

Item	Item Reliability	Factor Loading
PEOU1	0.667	0.8167
PEOU2	0.724	0.8509
PEOU3	0.677	0.8228
PU1	0.583	0.7635
PU2	0.784	0.8854
PU3	0.708	0.8414
AT1	0.421	0.6489
AT2	0.526	0.7253
AT3	0.457	0.6760
PNE1	0.551	0.7423
PNE2	0.461	0.6790
PNE3	0.659	0.8118
IN1	0.687	0.8289
IN2	0.882	0.9392
IN3	0.471	0.6863
SN1	0.518	0.7197
SN2	0.699	0.8361
SN3	0.554	0.7443
BI1	0.690	0.8307
BI2	0.878	0.9370
BI3	0.609	0.7804

## Appendix 5 Structural Equation Model

