The Impact of Trust on Intention to use in Virtual Communities according to Customer Type

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Abstract

Utilization of established virtual communities as a source of profit has also become crucial for the virtual community service providers. Thus, the service providers should try to find out the type of users: i.e., whether it is utilitarian or hedonic. They would then be able to ascertain what type of trust should be facilitated. When they understand which kind of trust they need to develop to induce members to use the site more, they can manage virtual communities more efficiently. This paper studies the two types of trust in virtual communities to clarify the difference between acceptance processes for usage based on the Technology Acceptance Model. Also, the different effect of trust and other variable according to customer types are investigated. The relationships among these factors are hypothesized. A structural equation model tests the hypothesized relationships.

Introduction

This paper draws on research into computer-mediated communication and interaction. In this paper, we discuss in what respects communication and interaction via compute-mediation is different according to the types of customer, and we point out how these differences affect processes of interpersonal influence.

A variety of people have joined one or more of the virtual communities that have grown up to serve customer needs for information, entertainment, and commerce. The rapid growth of virtual communities on the Internet raises the question of what encourages members of a community to interact and make virtual communities more dynamic [45]. The successful operation of virtual communities depends largely on whether service providers for virtual communities comprehensively understand the essence of these virtual communities and how much they know their members in terms of who they are and what their fundamental needs are [53].

Virtual communities in fact provide a unique context in which interaction can take place as members equip themselves with better atmosphere. Typically, the members of communities are strangers to one another because interaction and communication among virtual community members take place through a technological interface. This means that the primary relationship is not among the members, but rather with the technology-mediated environment [31]. Observable social cues, which serve as important facilitators of interpersonal communication in face-to-face settings, are reduced online [48]. This feature changes the way in which information is processed, and subsequently influence the interpersonal effects [52]. Additionally, the nature of online interaction, without the cues that face-to-face contact affords, may require the trust for successful interaction and communication [45].

Consequently, the effect of trust in online environment has been studied in the fields such as online shopping [23,25, 26] and banking [50]. However, there have been few studies to analyze trust in the context of virtual communities. Also, the previous studies of trust in online environment just dealt with the effect of impersonal trust rather than one of interpersonal trust although interpersonal trust may be more important in virtual community by nature [36].

In this research, we categorize trust into both trust in members and trust in service providers because activities on virtual communities such as interaction among members are influenced by interpersonal trust while other activities such as commerce on virtual communities is influenced by impersonal trust. We also categorize customer into both utilitarian group and hedonic group to identify the relationships between two types of trust and intention to use.

The relationships are empirically tested by using a structural equation model.

We review the literature on virtual communities, trust, playfulness, technology acceptance model, social identity and customer value in next section. And then, we address research model and hypotheses. Furthermore, we discuss research method and the analysis of results.

Theoretical Background

Virtual Community

The Internet is a medium where people access not only information, but also other people in order to chat, discuss, argue and confide [48]. On the one hand, some people want to be united by shared interests, common goals, activities, and enjoy their life by cooperating to share resources and satisfy each other's pleasure. On the other hand, some people come to get information from and give information to other people.

Virtual Communities can be defined as groups of people with common interests and practices that communicate for some duration in an organized way over the Internet through a common location or mechanism [43]. Also, virtual community can be defined as a group of people who communicate with each other via electronic media, such as the Internet, that share common interests, yet their geographical location, physical interaction or ethnic origin do not impose any constraints for the formation of the community [6, 44]. People have different understandings of a virtual community, depending on their specific needs and the context in which they visit a virtual community. Some definitions include enjoyment and pleasure while others strongly associate virtual community with information exchange.

For an Internet Commerce Company, the important issue is what draws people to and makes people stay on a Web site, so that they purchase goods or use services. For example, the success of America Online (AOL) proves that chatting online to friends, family, and new acquaintances is a promising business. Internet commerce entrepreneurs expect that virtual communities not only will make people stay on their sites, but will also have an important role in marketing, as people tell each other about their purchases and discuss banner ads, and help and advice each other [42]. Also, nowadays some virtual communities' web sites (Cyworld [1], Daum [2]) are equipped with e-commerce functions. Users can buy some items and present some gifts to friends or acquaintances. Thus, it is becoming important to figure out the mechanism of virtual communities and use it for marketing perspectives according to the growth of virtual communities. However, there is still much discussion about the practical and commercial perspective of virtual communities.

Trust

Trust is important in virtual communities where the absence of workable rules makes a reliance on the socially acceptable behavior of others, i.e. trust, essential for the continuity of the community [27]. Virtual communities are similar to organizational communities which allow for social interaction among members using various Internet tools and exhibit certain community standards and rules through trust. As research has shown, people in communities work better with others they trust, while actively avoiding contact with those they do not trust [9]. Trust in virtual communities can be understood in the context of interpersonal relationships, i.e. trust between people [45]. In a virtual community environment, people interact with each other by public communication tools. In the virtual community one converses with one or two other individuals, and because one is typically posting to a general audience, trust is at the generalized, collective level [43]. Notions of interpersonal trust have been applied to collective entities such as groups [35]. Repeated interaction with others and the open public reply and debate of a message may also help trust evolve [43]. In this article, this kind of interpersonal trust is called the Trust in members.

However, the analysis of trust in the context of virtual communities should consider impersonal relationships as well, because in computer-mediated environments such as electronic market personal trust is a rather limited mechanism to reduce uncertainty [46]. The service providers have to be considered as an object of trust. This impersonal form of trust primarily helps to reduce system-dependent uncertainty [25]. In the Internet environment, the belief that the vendor, the service provider, can be trusted is also significant because of the absence of the any practical guarantee that the service providers will not engage in undesirable opportunistic behaviors such as violations of privacy, conveyance of inaccurate information, and unauthorized tracking of transactions. The same logic applies to the virtual community. Users need to trust the service providers, assuming that the service providers will behave in an ethical and socially acceptable manner. In this article, trust related to the vendor is called the Trust in service providers.

Trust is the product of many beliefs concerning the trusted party. Research has shown three primary dimension of trust: ability, benevolence, and integrity. Ability refers to skills or competencies that enable an individual to have influence in a certain area. Benevolence is the expectation that others will have a positive orientation or a desire to do good to the trustee. Integrity is the expectation that another will act in accordance with socially accepted standards of honesty or a set of principles that the truster accepts, such as not telling a lie and providing reasonably verified information [43].

Technology Acceptance Model

TAM, introduced by Davis [14], is an adaptation of TRA (Theory of Reasoned Action) model specifically tailored for modeling user acceptance of IS. The goal of TAM is to

[1] Cyworld, http://www.cyworld.com/
[2] Daum, http://www.daum.net/

provide an explanation of the determinants of computer acceptance that is general, capable of explaining user behavior across a broad range of end-user computing technologies and user populations, while at the same time being both parsimonious and theoretically justified [15].

TAM adapted the generic TRA model to the particular domain of user acceptance of IS technology, replacing TRA model's attitudinal determinants with two beliefs: perceived usefulness and perceived ease of use. The TAM was found to be a much simpler, easier to use, and more powerful model of the determinants of user acceptance of IS technology, while both models were found to satisfactorily predict an individual's intentions and actual behavior. In addition, TAM's attitudinal determinants outperformed the TRA model's much larger set of measures [34].

A virtual community is, in essence, a type of information technology. As such online usage intentions should be explained in part by the technology acceptance model, TAM. Perceived usefulness is defined as the prospective user's subjective probability that using a specific IS will increase his/her job performance within an organizational context. Perceived ease of use refers to the degree to which the prospective user expects the target IS to be free of effort. Perceived usefulness is a measure of the individual's subjective assessment of the utility offered by the new IT in a specific task-related context. Perceived ease of use is an indicator of the cognitive effort needed to learn and to utilize the new IT [22]. The relationship between perceived usefulness and perceived ease of use and their impact on an individual's intention to use were studied within a virtual community field [36].

Playfulness

Much of the research into user acceptance of technology makes reference to Davis, who first proposed a technology acceptance model (TAM) applied to predict user acceptance of technology. Since then, researchers have criticized its extrinsic focus. Malone [39] stated that intrinsic motivation factors might also contribute to user acceptance of technologies, and Moon and Kim [40] proposed an intrinsic factor – 'perceived playfulness' – which can be generally defined as a situational characteristic of the interaction between an individual and the situation – as a new factor to affect a user's intention [7, 37].

Identity, Value

Social identity theory maintains that in addition to a personal identity, the self-concept is also composed of a social identity [51]. Personal identity consists of idiosyncratic characteristics, such as abilities and interests, whereas social identity consists of salient group classifications that, in turn, may be based on demographic categories, gender, or race, as well as membership in central organizations, such as clubs or religious, educational, or cultural institutions. According to Turner (1985), classification enables people to order the social

environment and locate themselves and others within it.

Social identification, then, is the perception of belonging to a group with the result that a person identifiers with that group (i.e., I am a member). Similarly, Dutton, Dukerich and Harquail (1994) view organizational identification as the cognitive connection that is created when a person's self-concept contains the same attributes as those perceived in the organizational identity.

Organizational identification has long been recognized as a critical construct in the literature on organizational behavior, affecting both the satisfaction of the individual and the effectiveness of the organization [41]. Social identity theory (SIT) can restore some coherence to organizational identification, and it can suggest fruitful applications to organizational behavior. SIT offers a social-psychological perspective, developed principally by Henri Tajfel and John Turner (1985).

Value is the subject's evaluation after his or her interaction experience with things or events, and it is a key outcome variable in a general model of consumption experiences [3, 32]. Most researchers divide customer values into two different categories: utilitarian and hedonic [3, 10, 12, 30].

Utilitarian values result from the conscious pursuit of an intended consequence [3]. It is primarily instrumental, functional, and cognitive and represents customer value as the means to an end [10]. Conversely, hedonic value is an outcome related to spontaneous responses that are more subjective and personal [3]. Hedonic values, such as entertainment, exploration, and self-expression [2,10], derive more from fun and enjoyment than from task completion and are noninstrumental, experiential, and effective [12,30].

Preceding the development of scales to measure the utilitarian and hedonic aspects of customer behaviors was the development of similar scales to help promote an understanding of how microcomputers might be utilized. While early work focused on the performance and utilitarian aspects of computer use, eventually the hedonic aspects of computer use were also recognized [54].

Research Model

Using TAM, a set of hypotheses has been generated to test the relationships between constructs in the research model.

There is an obvious relationship between trust and information exchange. If trust among members in the virtual community increases, information exchange between members in the virtual community will also increases. It would be expected that increased Trust in members would increase the activity of giving and getting information between members because the value of such information depends on the honesty of the person providing it and their willingness to help. So, it is hypothesized that when participants trust in their members, they will be more inclined to give and get information. In this model, the Intention to use means the intention to give information to and get information from members in virtual communities. Utilitarian identities are governed by values of economic rationality, the maximization of profit, and the minimization

of cost, which means the reciprocity of information, support, and services among members. Members want to engage in sharing information with them in order to solve problems. Usually, Utilitarian group technology adoption decisions have been typically characterized by a strong productivity orientation. Utilitarian groups that are characterized by economic rationality, maximization of profits, and self-interest are more interested in exchanging information in virtual community. The utilitarian outcomes are defined as the extent to which using virtual communities enhance the effectiveness of their activities. Utilitarian identity builds trust in virtual community environment. Users consider other member who provides information in virtual community. When the members of the virtual community are oriented to exchange information, they are more sensitive to the effect of trust in members than that of Trust in service providers because it is the important value for utilitarian group that the reciprocity of information, support, and services among members.

The first research model – labeled 'Model for intention to use in utilitarian group' – explaining the hypothesis 1 is presented in Figure 1.
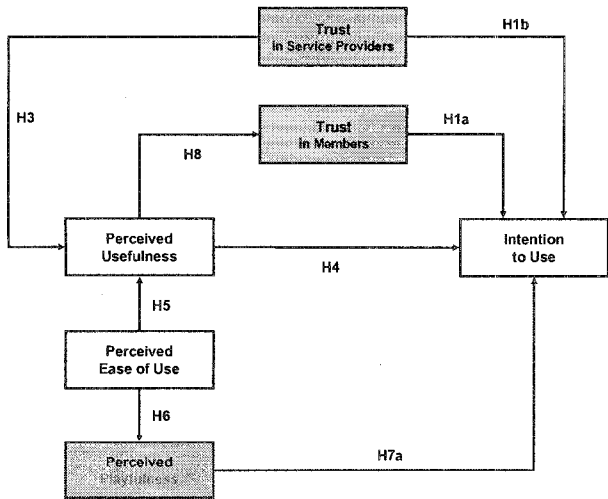

Figure 1 - The model for intention to use in utilitarian

H1: The impact of the trust in members on the intention to use is stronger than that of the trust in service providers.

Hedonic groups are oriented to express one's actual or ideal self-image, role position, or feelings toward group members. Members want to engage in repeated, active participation, and often, intense interactions, strong emotional ties, and shared activities such as chatting with avatars occur among participants. Hedonic value is an outcome related to entertainment and enjoyment that are more from fun than tasks. The entertainment potential of virtual communities is expected to have a strong influence on the adoption decision. We expect virtual community adoption to be influence by hedonic outcomes. Consumer behavior research describes hedonic outcomes as the pleasure derived from the consumption, or use of a product.

Hedonic groups are also influenced by trust in virtual community environment. Members want to engage in repeated, active participation, and often, intense interactions and consider social relationship with other member. In this virtual community environment, members usually enjoy chatting or online game with other member. They take virtual community service providers' reliability into consideration because service providers provide members with the chatting interface or online environment. When the members of the virtual community are oriented toward entertainment, enjoyment and having fun than the completion of work or task, they are more sensitive to the effect of Trust in Trust in service providers than that of members.
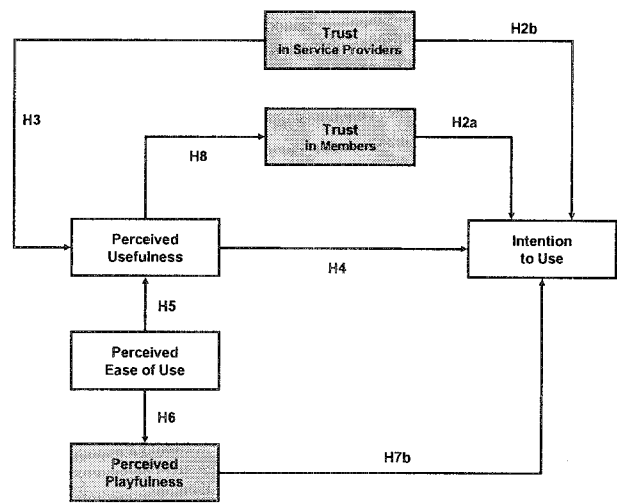

Figure 2 - The model for intention to use in hedonic

One of the major factors influencing intention to use is people's trust in online service providers [23,25,26]. When the people interact with computer systems online, they consider the trust in service providers: reliability of service providers, online security, and the existence of a privacy policy. Trust in service providers would be essential in virtual community because trust would rule out undesirable and opportunistic behaviors of them. In this way, trust in service providers encourages online activity.

Members in virtual communities may also influence the user's behavior in hedonic group by providing relevant information or recommendation. However, their influence is usually indirect although the service providers more directly affect online activities. Consequently, it may be hypothesized that trust in service providers will influence intention to use more than trust in members. Figure 2 represents the second research model, named 'The model for intention to use in hedonic group', describing this hypothesis.

H2: The impact of the trust in service providers on the intention to purchase is stronger than that of the trust in members.

On one hand, trust should also increase certain aspects of the perceived usefulness of virtual communities. The usefulness of a virtual community, a kind of web site, depends on both the effectiveness of its relevant technological properties and the extent of the human service behind the IT, which makes the non-technological aspects of the IT effectiveness [23]. The user will be able to successfully complete tasks on the virtual community (e.g., search for information) with an information provider who can be trusted. Trust establishes the credibility of the service provider in providing what has been promised [21]. Also, trust in service providers builds perceived usefulness by providing the measure of subjective guarantee that the vendor who provides virtual community services can make well on his/her side of the deal. Service providers of virtual communities whom cannot be trusted may result in decreasing usefulness. If users gain the expected benefits from the service providers through the virtual community, perceived usefulness will be increased.

H3: Trust in service providers positively affects perceived usefulness.

As shown in previous research [23,50], it is hypothesized that paths predicted by TAM apply also to the environment of virtual community [36]. The more useful and easier to a virtual community in enabling the users to accomplish their tasks, the more it will be used [23]. In accordance with the original TAM and previous TAM studies, the next hypotheses assume that the relationships found in other TAM studies apply to virtual communities, as they are assumed to apply to many other types of IS. It is hypothesized that perceived usefulness influences intention to use

H4: Perceived usefulness positively affects intention to use.

Next, in accordance with the classic TAM, it is hypothesized that perceived ease of use influences perceived usefulness because an easy-to-use IS is more useful [14]. The previous research also investigated the relation between perceived ease of use and perceived playfulness.
Moon and Kim (2001) examined the impact of perceived playfulness on intention to use. Previous research has found that attitudinal outcomes, such as positive affect, pleasure, and satisfaction, result from the playful experience.
In assessing perceived ease of use, a user focuses on the interaction with the system as such, and not on objectives external to this interaction. This has important ramifications for the role of ease of use in utilitarian group and hedonic group. In completing tasks such as information exchange, the interaction with the computer system is subordinate to the achievement of external goals. By contrast, in the context of hedonic group, the achievement of external goals is subordinate to using the computer system itself. The focus on user experience implies that an assessment of the effort involved in user-system interaction is more important that an assessment of the degree to which that interaction

helps in achieving external benefits. Consequently, the impact of perceived ease of use and perceived playfulness in hedonic group is stronger than in that in utilitarian group.

H5: Perceived ease of use positively affects perceived usefulness.
H6: Perceived ease of use positively affects perceived playfulness.
H7: Perceived playfulness positively affects intention to use.

Also, if users gain the expected benefits from the information provided by virtual communities' members through the virtual community, perceive usefulness will be increased. Then, perceive usefulness has positive influence on Trust in members. A trusting relationship is in itself a benefit of the interaction with the virtual community's members.

H8: Perceived usefulness positively affects Trust in members

Figure 1 and 2 present our research models as well as other hypotheses derived from original TAM.

The Research Methodology

The data for this paper was collected via a web survey. We carried out the survey on Cyworld[3], the largest virtual community service provider in Korea. Cyworld, similar to Geocities[4] and Myspace[5], provides free community services, so about 800,000 virtual communities are operated on Cyworld. In total, 2042 cases were gathered for about one week, but there were some missing values in the sample and there were some inappropriate cases. Thus, only 1,899 cases were finally analyzed. There were 859 cases in the utilitarian group and 1, 040 cases in the hedonic group. Seventy-eight percent of the respondents were female, and twenty-two percent were male. Almost all respondents were in their twenties or thirties. The respondents had a variety of academic backgrounds. About seventy-six percent of the respondents had experienced a virtual community for over one year while ninety-eight percent of the respondents had experience using the Internet for over one year.
A structural equation model is employed to examine the effects of trust and TAM on intentions in a virtual community. The unit of analysis in this study is an individual user of a virtual community. The population we are interested in is the set of individuals who have the experiences in virtual communities.
The scientific research method was used to develop reliable and valid measurements for the theoretical constructs of the research model. The measurement items were developed based on related literature. When developing the items, the multi-item method was used. Each item was measured

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based on the seven-point Likert-type and semantic differential scale from strong agree to strong disagree. When possible, measurement items that had already been used and validated by other researchers were adopted [23, 35, 43].

The questionnaire contained the standard TAM scales of perceived usefulness and perceived ease of use adapted from Davis' scales [15]. Intention to use of a virtual community was assessed by four items [22, 29]. Six items were used to measure each of perceived usefulness and perceived ease of use. Nine items were used to measure each of perceived playfulness [40]. The items used in this paper were adapted from prior research with appropriate modification to make them specifically relevant to the virtual community environment. Trust in members is considered as a belief with two dimensions: ability and benevolence/integrity, which is adopted from Gefen et al [43]. The measurement of the components of trust was adapted from Jarvenpaa et al [26, 34].Trust in service providers is considered as a belief with three dimensions: ability, benevolence, and integrity, which is adopted from Gefen [23] and Jarvenpaa [26, 35].

Analysis of Results

For the initial measurement assessment, we followed the instrument validation process suggested by Straub (1989). He argued that researchers who will utilize confirmatory research findings first need to demonstrate that developed instruments are measuring what they are supposed to be measuring. Therefore, reliability of internal consistency was tested first and then convergent validity. Detailed descriptive statistics about the internal reliability and convergent validity are shown in Table 1.

Internal consistency reliability is a statement about the stability of individual measurement items across replications from the same source of information [49]. Cronbach's alpha was used for assessing the reliability of the items in each category and the items with Cronbach's alpha less than 0.7 thresholds were eliminated. The alpha values of selected items range from 0.906 to 0.947. Hair, et al. [28] suggested that the lowest limit for Cronbach's alpha should be 0.70 although Straub (1989) suggested 0.80 as the limit. All constructs in the research model demonstrated acceptable reliability.

Construct validity indicates whether or not the measures chosen are true constructs describing the event. Here, the Straub's (1989) processes of validating instruments in management information systems (MIS) research were applied to test construct validity in terms of convergent validity. Principal component analysis using varimax rotations were used for assessing the construct validity of the items. The contemporary approach uses the SEM technique and Confirmatory Factor Analysis (CFA). The contemporary approach affords certain advantages in validity assessment over the classical approach [47]. Thus, we applied the contemporary approach. Table 1 presents all the selected items which imply each construct.

Table 1 - Results of internal reliability and convergent validity

Construct	Item	Cronbach α	Factor Loading	Composite Reliability	Variance Extracted
Trust in Service Providers	TS1		0.704		
	TS2		0.762		
	TS3		0.736		
	TS5		0.666		
	TS6		0.816		
	TS7	0.919	0.775	0.821	0.606
	TS8		0.800		
	TS9		0.769		
	TS10		0.646		
	TS11		0.643		
	TS12		0.625		
Trust in Members	TM1		0.813		
	TM2		0.863		
	TM3		0.880		
	TM4		0.863		
	TM5		0.808		
	TM6	0.947	0.812	0.819	0.694
	TB1		0.733		
	TB2		0.654		
	TB3		0.665		
	TB4		0.717		
	TB5		0.712		
	TB6		0.680		
Perceived Usefulness	PU1		0.767		
	PU2		0.833		
	PU3		0.851		
	PU4	0.925	0.836	0.881	0.649
	PU5		0.857		
	PU6		0.778		
Perceived Ease of Use	EU1		0.777		
	EU2		0.800		
	EU3	0.912	0.834	0.875	0.584
	EU5		0.816		
	EU6		0.882		
Perceived Playfulness	PP1		760		
	PP2		802		
	PP3		789		
	PP4		751		
	PP5	0.926	746	0.847	0.626
	PP6		756		
	PP7		801		
	PP8		806		
	PP9		784		
Intention To Use	IN1		0.839		
	IN2		0.788		
	IN3	0.906	0.844	0.897	0.685
	IN4		0.842		

Convergent validity is the degree to which multiple attempts to measure the same concept are in agreement [4, 40]. A convergent validity test was done by specifying a single factor model for each construct. The test shows the

factor loadings of the measurement items. TS4, TB1 and EU4 do not surpass the recommended level for factor loading, 0.60 [13]. These measurement items were eliminated and all the remaining measurement items surpassed the recommended level. Detailed descriptive statistics relating to the factor analysis are shown in Table 1.

Unidimensional validity was assessed by examining standardized residual variance based on Gerbing and Anderson (1988). There were two standardized residuals above the 2.58 threshold. PU1 and PU6 were eliminated, and all the remaining measurement items stayed within recommended level [24]. Discriminant validity can be evaluated by comparing the squared correlation between two constructs with their respective variance extracted measure. Discriminant validity is demonstrated if the variance extracted measures of both constructs are greater than the squared correlation 11,20]. The variance extracted measures of each construct are diagonal. It shows that all squared correlations between the two constructs are less than the variance extracted measures of both constructs. Discriminant validity is, therefore, demonstrated.

Fit measures of 'the model for intention to use in utilitarian group' indicated acceptable fit. The GFI at .958, AGFI at .9410, NFI at .969, TLI at .975, CFI at .981, RMR at .044, and RMSEA at .043 were within the accepted thresholds for CFA. There are some disagreements in the literature about the cutoff value of RMR. However, the value of RMR in this model was satisfactory. The χ^2 of 384.617 with 149 degrees of freedom showed a χ^2 to degrees of freedom ratio of less than the recommended 1:3 [11, 22, 23, 24, 26, 18, 33]. Also, fit measures of 'model for intention to use in hedonic group' indicated acceptable fit. The GFI at .962, AGFI at .946, NFI at .971, TLI at .976, CFI at .981, RMR at .034, and RMSEA at .042 were also within the accepted thresholds for CFA. The χ^2 of 408.100 with 146 degrees of freedom showed a χ^2 to degrees of freedom ratio of less than the recommended 1:3. Detailed overall model fit indices of the research models are presented in Table 2.

Table 2 - Overall model fit indices of research model

	Model for intention to use in utilitarian group	Model for intention to use in hedonic group	Recommended value
Chi-square	384.617	408.100	
P-value	0.000	0.000	>0.05
Degree of freedom	149	146	
GFI	0.958	0.962	>0.90
AGFI	0.941	0.946	>0.80
NFI	0.969	0.971	>0.90
TLI	0.975	0.976	>0.90
CFI	0.981	0.981	>0.90
RMR	0.044	0.034	<0.05
RMSEA	0.043	0.042	<0.06

GFI: Goodness-of-Fit   Index   AGFI: Adjusted Goodness-of-Fit Index
NFI: Normal Fit Index   TLI: Tucker-Lewis Index
CFI: Comparative Fit Index   RMR: Root Mean square Residual
RMSEA: Root Mean Square Error of Approximation

Our research model was to extend TAM by adding two types of trust for the virtual community environment from the perspective of intention to use. By building an extended model of TAM and examining the relationships between trust and the existing variables of TAM, it was aimed to explain a user's intention to use on the virtual community. Thus, we applied SEM to test our model. AMOS, the software package for SEM, was used to test the hypotheses in our model. Figure 3 and Figure 4 illustrate the estimated coefficients and their significance.
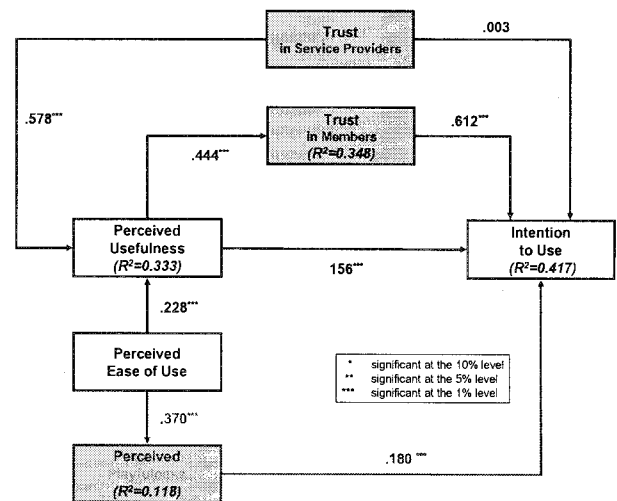

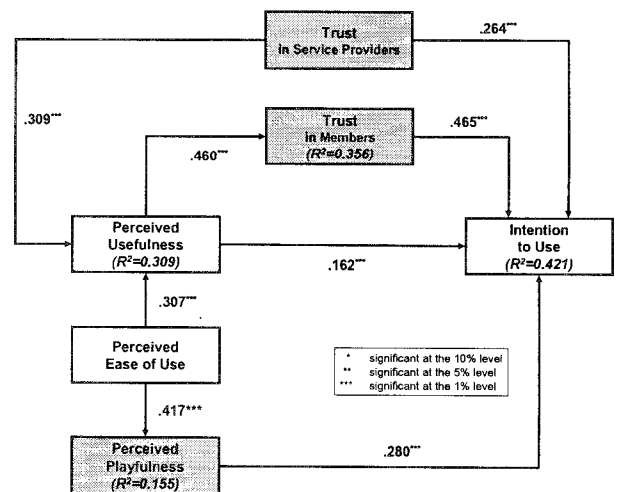Figure 3 - Results of the model for intention to use in utilitarian group

Figure 4 - Results of the model for intention to use in hedonic group

Hypotheses 1 and 2 examined the impact of trust in members on intention to use in utilitarian and hedonic group. Trust in members had a significant impact on intention to use in 'the model for intention to use in utilitarian group' ($\beta = 0.612$, p < 0.01). Trust in service providers had a significant impact on intention to use in 'the model for intention to use in hedonic group' ($\beta = 0.264$, p < 0.01). Trust in service providers had a significant impact on perceived usefulness in 'the model for intention to use in utilitarian group' ($\beta = 0.578$, p < 0.01) and 'the model for intention to use in hedonic group' ($\beta = 0.309$, p < 0.01). In 'the model for intention to use in utilitarian group', the impact of the trust in members ($\beta = 0.612$) was bigger than that of the trust in service providers ($\beta = 0.003$). Also, the impact of the trust in service providers ($\beta = 0.264$) was smaller than that of trust in members ($\beta = 0.465$) in 'the model for intention to use in hedonic group'. As a result, hypotheses 1 and 2 are accepted.

The impact of perceived ease of use on perceived usefulness was also significant in 'the model for intention to use in utilitarian group' ($\beta = 0.228$, p < 0.01) and 'the model for intention to use in hedonic group' ($\beta = 0.307$, p < 0.01). The impact of perceived ease of use on perceived playfulness was also significant in 'the model for intention to use in utilitarian group' ($\beta = 0.370$, p < 0.01) and 'the model for intention to use in hedonic group' ($\beta = 0.417$, p < 0.01). The impact of perceived usefulness on intention to use was significant in 'the model for intention to use in utilitarian group' ($\beta = 0156$, p < 0.01). The impact of perceived usefulness on intention to use was also significant in 'the model for intention to use hedonic group' ($\beta = 0.162$, p < 0.05). Therefore, the rest hypotheses are also accepted.

The results show that the effect of trust in members on intention to use is stronger than that of trust in service providers in utilitarian group. Also, trust in service providers has an impact on intention to use mediated by perceived usefulness. As shown in Figure 3 and 4, the effect of trust in service providers on intention to use in hedonic group is stronger than that of trust in service provider in utilitarian group.

Table 3 - Test of Equality between Sets of Coefficients

Hypothesis	Path		T-value	p-value	Remarks
	Variable 1	Variable 2			
Ha	Trust in Members	Intention to Use	54.72	0.000	UTIL>HED
Hb	Perceived Ease of Use	Perceived Usefulness	50.61	0.000	UTIL>HED
Hc	Perceived Ease of Use	Perceived Playfulness	25.58	0.000	UTIL<HED
Hd	Perceived Playfulness	Intention to Use	55.61	0.000	UTIL<HED

Conclusions

This paper specifically addresses the topic of interpersonal and impersonal influence within virtual communities. Some users of a virtual community use for utilitarian purpose, but others use it for hedonic amusement. This kind of difference affects the whole mechanism of the user

acceptance. Thus, it is quite possible that further differentiation of users according to type of identity could result in crucial implication.

Despite the growing interest in virtual communities and their ability to influence members' knowledge and behavior, systematic research into this issue is lacking. Therefore, this paper has taken a broad and exploratory perspective addressing various aspects of virtual community participation and its effect on consumer decision-making.

In the context of virtual communities, influence among group members takes place via online interaction. Furthermore, we systematically examine the determinants and the effects of virtual community influence on customer decision-making. Dholakia et al. [16] find that people have different reasons for participating in small group and network-based communities. Cyworld is based on integrated internet-platform that combines functionalities of both types of communities. This means that members may combine a social benefit motivation with an informational and instrumental value motivation to participate. It is interesting to examine the subsequent effect on the level of community influence on customer decision-making. We distinguish members on the basis of how they make use of the community. Thus, we can compare levels of community influence between member types-utilitarian and hedonic-that use these functionalities to a different extent.

This paper proposed a theoretical model to explain the user acceptance for usage in virtual communities. In the model, we investigated the impact of different types of trust on the intention to use under the virtual community environment. The model extended TAM, which is one of the models most widely used for explaining user acceptance of various IS.

Trust is one of the most significant beliefs in explaining user acceptance of virtual communities. People come to virtual communities to exchange information and have fun. Considering these differences, this study investigated the impact of trust in service providers and trust in members on intention to use. The empirical findings suggest interesting understandings. Both trust in members and trust in service providers appear to play an important role in determining behavioral intentions on virtual communities. But, the relative importance of the two constructs is different according to the type of user groups. The results show that the effect of trust in members on intention to use is stronger than that of trust in service providers in utilitarian group. Also, trust in service providers has an impact on intention to use mediated by perceived usefulness. The effect of trust in service providers on intention to use in hedonic group is stronger than that of trust in service provider in utilitarian group. These results provide researchers with an implication to problems raised in user acceptance researches concerning the importance and role of trust.

Thus, the service providers should try to find out the type of users: i.e., whether it is utilitarian or hedonic. They would then be able to ascertain what type of trust should be facilitated. When they understand which kind of trust they need to develop to induce members to use the site more, they can allocate their resources more efficiently for the business. There are other factors such as commitment,

subjective norm, self-efficacy, personal innovativeness and personality to influence consumer acceptance of virtual community [1, 5, 8, 17]. Therefore, virtual community providers should be concerned by the dominant determinant according to the types of users' intention and approach it with a different strategy. The theoretical contribution of the paper is to suggest an in-depth explanation for the linkage between trust and user acceptance in the specific environment for virtual community. In this paper, there are some limitations. First, a sample is gathered from only one service provider which is the most popular in Korea. Although the company contains various kinds of virtual communities, there may be possibility of bias. Therefore, it will be appropriate to get samples from other service providers in future research.

Second, the future study may use the level of customers' identification. Third, the research model did not consider other beliefs and antecedents of trust. These constructs that mediate or affect the model may enhance the rigorousness of the research.

Further study considering these limitations would be able to enhance the development of user acceptance of virtual communities.

References
* 참고문헌이 필요하신 분은 저자에게 전자메일을 보내주시기 바랍니다.