ANALYSIS OF TRUST IN THE E-COMMERCE ADOPTION

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Abstract

Understanding user acceptance of the Internet, especially the usage intention of virtual communities, is important in explaining the fact that virtual communities have been growing at an exponential rate in recent years. This paper studies the trust of virtual communities to better understand and manage the activities of E-commerce. A theoretical model proposed in this paper is to clarify the factors as they are related to the Technology Acceptance Model. In particular the relationship between trust and Intentions is hypothesized. Using the Technology Acceptance Model, this research showed that the importance of trust in virtual communities. According to the research, different ways of stimulating the members are necessary in order to facilitate participation in activities of virtual communities. The effect of trust in members on intention to use is stronger than that of trust in service providers. The intention to purchase is more sensitive to trust in service providers than trust in members.

1. Introduction

The Internet has been growing at an exponential rate in recent years. For many years computer users have used the Internet to share data, collaborate on their work, and exchange messages. Recently, millions of computer users worldwide have begun to explore the Internet and engage in commercial online activities [38, 16]. A variety of people have joined one or more of the virtual communities that have grown up to serve consumer needs for communication, information, and entertainment. 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 [29].

Keeney [23] suggested that Internet Commerce is a function of the customer's perception of the benefits and costs of both a product and the processes of finding, ordering, and receiving it. Measured by this momentum, it is clear that virtual communities will

gain greater importance in the future [38]. Commercial enterprises are relative newcomers to the on-line world, and few of them have made money there. The rise of virtual communities in on-line networks has set in motion an unprecedented shift in power from vendors of goods and services to the customers who buy them. Hagel and Armstrong [16] argue that "the notion of community has been at the heart of Internet since its inception." They also argue that the traditional business functions which were used in direct contact with customers such as marketing and sales will be significantly transformed into the community environment. In a turbulent Internet commerce environment, Internet companies need to understand how to satisfy customers to sustain their growth and market share. This is because customer satisfaction is critical for establishing long-term client relationships [26]. The Internet companies can maintain customer relationships by virtual communities and find out the crucial factors for customer satisfaction by getting information such as preference and interest of clients from virtual communities. This fluid and dynamic revolution is also true in the various industries as it is becoming easier. In the various industries the Web is becoming our collective agora as more and more people are going for virtual communities to seek information and tips, to make transactions, to promote relationships with people far away, to forage for interest and simply to have fun for entertainment purposes. At the same time, many companies are beginning to realize the importance of utilizing the power of virtual communities in order to establish relationship marketing.

Virtual communities offer both special opportunities and challenges. On the one hand such a community destroys boundaries created by time and distance and makes it dramatically easier for people to obtain information, maintain connections, and reinforce relationships. On the other hand, the successful operation of virtual communities depends largely on whether these companies have a comprehensive understanding of the essence of these virtual communities and how much they know their

members in terms of who and what their fundamental needs are in the context of virtual communities [38]. A basic understanding of the essence of a virtual community is a prerequisite for any organization operating a virtual community to be clear about the mission, purpose, and the right direction to take to achieve their goal.

Virtual communities in fact provide a unique context in which commerce can take place as members equip themselves with better atmosphere. The members of communities are typically strangers to one another. Additionally, the nature of online interaction, without the cues that face-to-face contact affords, may require trust for successful communication and secure payment, or, on the other hand, may inhibit the development of trust [29].

The question of this research is addressed why trust is so important and how analyzes trust in the context of virtual communities.

This study seeks to examine trust in this environment, the factors that lead to its development and its importance to utilize virtual communities. In this research, we categorize trust into both Trust in members and Trust in service providers. Trust is one of the most significant beliefs in explaining user acceptance of virtual communities. The purpose of this study is to identify the relationship between trust and Intentions: To propose a theoretical explanation of the varying effects of trust on IT adoption by differentiating between Intention to use and Intention to purchase through the analysis of the Structural Equation Model

2. Theoretical Background

2.1. 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 [35]. 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 [29]. 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 [2, 30]. The most often cited definition of a virtual community was first given by Rheingold [28] as: "social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feelings, to form Webs of personal relationships in cyberspace. A virtual community is a group of people who may or may not meet one another face to face, and who exchange words and ideas through the mediation of computer bulletin boards and networks."

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.

There are some differences between virtual communities and face-to-face communities. First, physical location is irrelevant to participation in virtual communities. Second, most participants in virtual communities are relatively invisible (i.e. if an individual only reads messages and does not post, other members may not aware of his/her presence at all). Third, logistical and social costs to participate in virtual communities are lower [35]. Compared to a community offline, virtual communities tend to be larger, more scattered in space and time, more densely knit, and to have members with more heterogeneous social characteristics, such as lifecycle stage, gender, ethnicity, and socioeconomic status, but with more homogeneous attitudes [19]. Virtual communities have some core attributes which include: first, members have a shared goal, interest, need, or activity that provides the primary reason for belonging to the community; second, members engage in repeated, active participation, and often, intense interactions, strong emotional ties, and shared activities occur among participants; third, members have access to shared resources, and policies determine the access to those resources; fourth, there is reciprocity of information, support, and services among members; and fifth, there is shared context of social conventions, languages, and protocols [27].

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 [27]. Also, nowadays some virtual communities' web sites (Cyworld¹, Daum²) 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.

2.2. Trust

Social psychology characterizes trust in terms of expectations and willingness to engage in a transaction, the risks associated with acting on such expectations, and the contextual factors that either enhance or inhibit the development and maintenance of positive expectations [24]. Although there are various definitions of trust, they have some characteristics in common. First, trust is one party's confident belief in another party's particular action [11, 6]. This party is called the trustee, and that one is the truster. Second, trust is the expectation that the trustee's promise can be relied upon and that the trustee will act in the spirit of goodwill. Third, trust is based on previous interactions. Although the trustee's previous behavior cannot guarantee that he/she will act as expected, the truster's trust will increase if the trustee has behaved previously as expected. Finally, trust is not related to whether the truster is able to monitor or control the trustee.

Trusting beliefs came primarily from social psychology, which says that interactions between people and cognitive-emotional reactions to such interactions determine behavior.

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 [16]. 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 [3]. Trust in virtual communities can be understood in the context of interpersonal relationships, i.e. trust between

people [31]. 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 [29]. Notions of interpersonal trust have been applied to collective entities such as groups [22]. Repeated interaction with others and the open public reply and debate of a message may also help trust evolve [29]. 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 [33]. The service providers have to be considered as an object of trust. This impersonal form of trust primarily helps to reduce system-dependent uncertainty [15]. 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 vendor 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 vendor, assuming that the vendor 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 [29].

Among the virtual community's members, two dimensions seem to be important: ability, on the one hand, and a combined benevolence and integrity dimension, on the other [29]. The accuracy, soundness, and reliability of information, which is embodied by trust in abilities, are crucial. The other two dimensions, benevolence and integrity, both lead to the reciprocity in the communities' conversation.

In the virtual community environment, the communities will not survive if reciprocity does not

¹ Cyworld, <http://www.cyworld.com/>

² Daum, <http://www.daum.net/>

exist. Trust in members enables and determines the nature of interpersonal relationships [3]. There is an exchange of information among people who trust each other. When trust exists between people, they are more inclined to share their thought with each other and cooperate in shared activity. In the virtual community environment, this shared activity is in the form of cooperative information exchange [29].

There is an obvious relationship between trust and information exchange. If trust among members in virtual community increases, information exchange between members in virtual community will also increase. 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. When the members of the virtual community are oriented to exchange information or knowledge, they are more sensitive to the effect of Trust in members. The research model 1 explaining the first hypothesis is presented in Figure 1.

H1: The effect of Trust in members on Intention to use will be stronger than that of Trust in service providers.

A major factor influencing intention to purchase in E-commerce is people's trust in Internet vendors. There is necessary condition of increasing trust on the Internet. When the people buy online, they concern the vendors' trust: reliability of service providers, online payment security, and the lack of a privacy policy. Trust in service providers would be essential in E-commerce because trust would rule out undesirable and opportunistic behaviors of vendors. In this way trust in service providers encourages online commerce activity. In other words, it is hypothesized that trust in service providers will influence intention to purchase on the internet. The research model 2 describing this hypothesis is presented in Figure 2.

H2: The effect of Trust in service providers on Intention to purchase will be stronger than that of Trust in members.

2.3 Technology Acceptance Model

TAM, introduced by Davis [7], is an adaptation of TRA (Theory of Reasoned Action) model specifically tailored for modeling user acceptance of IS. The goal of TAM is to 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 [8].

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 [21].

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 [11].

On the one hand, trust should also increase certain aspects of the Perceived usefulness of a Web site. The usefulness of a Web site depends on both the effectiveness of its relevant technological properties and on the extent of the human service behind the IT, which makes the non-technological aspects of the IT effective [12]. The user will be able to successfully complete tasks on the Web site (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 [10]. 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. Virtual community service providers who cannot be trusted could result in decreasing usefulness. Like this, if users gain the expected benefits from the service providers through the virtual community, usefulness will be increased.

H3: Trust in service providers will positively affect Perceived usefulness.

As shown in previous research [12, 37], it is hypothesized that paths predicted by TAM apply also to Internet environment. The more useful and easier to

a Web site in enabling the users to accomplish their tasks, the more it will be used [12]

H4a: Perceived usefulness will positively affect Intention to use.

H4b: Perceived usefulness will positively affect Intention to purchase.

H5: Perceived ease of use will positively affect Perceived usefulness.

The research model 1 and 2 summarizing these hypotheses are presented in Figure 1 and 2, below.

Figure 1. Research Model 1

Figure 2. Research Model 2

3. Method

A structural equation model (SEM) is employed to examine the effects of trust and TAM on intentions to use from a virtual community.

The unit of analysis in this paper is an individual user of a virtual community. The population of interest is the individual with the experiences in virtual community.

The data for this paper was made available via a web survey of virtual community users (Cyworld). In the test, the data was collected from the Internet. In total, 1121 cases were gathered for about one week, but there were some missing values in the sample and there were some inappropriate cases. Thus, only 1040 cases were finally analyzed.

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 have 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. Detailed descriptive statistics relating to the respondents' characteristics are shown in Table 1.

Table 1. Descriptive statistics of respondents' characteristics

Measure	Items	Percent
Gender	Male	21.7
	Female	78.3
Age	15~19	11.7
	20~29	77.1
	30~39	9.7
	40~59	1.5
Academic Status	Middle school	1.9
	High school	18.9
	Under graduate	74.8
	Graduate	4.3
Primary place of use	Office/Campus	26.0
	Home	72.7
	Etc.	1.4
Degree of Internet experience	Under 1 year	2.2
	Above 1 year	97.8
Degree of VC experience	Under 1 year	23.8
	Above 1 year	76.2

The scientific research method is used to develop reliable and valid measurements for the theoretical constructs of the research model. The measurement items are developed based on related literature. When developing the items, the multi-item method is used and each item is measured based on the seven-point Likert-type and semantic differential scale from strong agree to strong disagree. When possible, measurement items that have already been used and validated by other researchers were adopted.

The questionnaire contained the standard TAM scales of Perceived usefulness and Perceived ease of use adapted from Davis' scales [8]. Intention to use of a Web site was assessed by four items. Intention to purchase was assessed by three items [11, 18]. Six items each were used to measure Perceived usefulness and Perceived ease of use. 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 by a reference [29]. The measurement of the components of trust was adapted from Jarvenpaa

et al [22, 14]. Trust in service providers is considered as a belief with three dimensions: ability, benevolence, and integrity, which is adopted from reference [12, 14, 22].

4. Analysis and Results

For the initial measurement assessment, we follow the instrument validation process suggested by Straub [36]. 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, internal consistency reliability is tested first, and then convergent validity.

Internal consistency reliability is a statement about the stability of individual measurement items across replications from the same source of information [36]. Large Cronbach's alpha coefficients are usually signs that the measures are reliable [36]. Detailed descriptive statistics relating to the internal reliability and convergent validity are shown in Table 2.

Construct validity indicates whether or not the measures chosen are true constructs describing the event [36]. Here, the Straub's [36] processes of validating instruments in MIS research are applied to test construct validity in terms of convergent validity.

Cronbach's alpha was used for assessing the reliability of the items in each category. The items with Cronbach's alpha less than 0.7 thresholds are eliminated. Principal component analysis using varimax rotations were used for assessing the construct validity of the items. The alpha values range from 0.888 to 0.932. Hair, et al. [17] suggested that the lowest limit for Cronbach's alpha should be 0.70 although Straub [36] suggested 0.80 as the limit. All constructs in the research model demonstrated acceptable reliability.

The techniques for assessing the construct validity of an instrument can be classified into two categories: classical and contemporary [4]. The classical approach uses techniques including MultiTrait-MultiMethod (MTMM) analysis and exploratory factor analysis. 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 [34].

Convergent validity is the degree to which multiple attempts to measure the same concept are in agreement [1, 25]. 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 [5]. These measurement items were eliminated, and all the remaining measurement items surpass the recommended level. Detailed descriptive statistics relating to the factor analysis are shown in Table 2.

Table 2. Result of internal reliability and convergent validity

Construct	Item	Cronbach's α	Factor Loading	Composite Reliability	Variance Extracted
Trust in Service Providers	TS1	0.923	0.791	0.834	0.629
	TS2		0.816		
	TS3		0.829		
	TS5		0.697		
	TS6		0.715		
	TS7		0.709		
	TS8		0.696		
	TS9		0.642		
	TS10		0.784		
	TS11		0.766		
	TS12		0.635		
Trust in Members	TM1	0.932	0.744	0.837	0.719
	TM2		0.791		
	TM3		0.819		
	TM4		0.805		
	TM5		0.721		
	TM6		0.673		
	TB2		0.672		
	TB3		0.655		
	TB4		0.724		
	TB5		0.785		
	TB6		0.729		
Perceived Usefulness	PU1	0.915	0.686	0.877	0.642
	PU2		0.741		
	PU3		0.790		
	PU4		0.793		
	PU5		0.763		
	PU6		0.635		
Perceived Ease of Use	EU1	0.915	0.826	0.892	0.566
	EU2		0.798		
	EU3		0.818		
	EU5		0.808		
	EU6		0.831		
Intention To Use	IN1	0.905	0.777	0.869	0.627
	IN2		0.846		
	IN3		0.816		
	IN4		0.632		
Intention To Purchase	IN5	0.888	0.921	0.782	0.550
	IN6		0.928		
	IN7		0.888		

Table 3. Comparison of squared correlation and variance extracted (Model 2)

	Trust in Service Providers	Trust in Members	Perceived Usefulness	Perceived Ease of use	Intention To Purchase
Trust in Service Providers	0.629				
Trust in Members	0.428	0.719			
Perceived Usefulness	0.438	0.597	0.642		
Perceived Ease of use	0.443	0.387	0.482	0.566	
Intention To Purchase	0.333	0.217	0.237	0.138	0.550

Unidimensional validity was assessed by examining standardized residual variance based on Gerbing and Anderson. There are two standardized residuals above the 2.58 threshold. PU1 and PU6 were eliminated, and all the remaining measurement items stay within recommended level [13, 32].

Discriminant validity can be evaluated by comparing the squared correlation between two constructs with their respective variance extracted measure. Table 3 shows the squared correlation of each pair of constructs and variance extracted measures. Discriminant validity is demonstrated if the variance extracted measures of both constructs are greater than the squared correlation [4, 9]. 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 was, therefore, demonstrated.

The major objective of this section is to empirically test the hypothesized causal structure of the research model. The model was to extend TAM with the trust concept for the virtual community environment from the perspective of tasks. By building an extended model of TAM and examining the relationships between trust and the existing variables of TAM, it is aimed to explain a user's intention to use and purchase on the virtual community. In this test, AMOS was used to test the Structural Equation Model (SEM). Thus, Figure 3 and Figure 4 illustrate the estimated coefficients and their significance.

Fit measures of model 1 indicated acceptable fit. The GIF at .935, AGFI at .913, NFI at .951, TLI at .953, CFI at .961, RMR at .060, and RMSEA at .061 are almost within the accepted thresholds for Confirmative Factor Analysis except RMR. There is some disagreement in the literature about the cutoff value of RMR. However, the value of RMR in this model is marginal. The χ^2 of 618.931 with 127 degrees of freedom showed a χ^2 to degrees of freedom ratio of more than the recommended 1:3 [4, 11, 12, 13, 14, 17, 20]. Also, Fit measures of model 2 indicated acceptable fit. The GIF at .942, AGFI at .919, NFI at .955, TLI at .956, CFI at .964, RMR

at .077, and RMSEA at .060 are also almost within the accepted thresholds for Confirmative Factor Analysis except RMR. However, the value of RMR in this model is marginal. The χ^2 of 531.487 with 111 degrees of freedom showed a χ^2 to degrees of freedom ratio of more than the recommended 1:3. Detailed overall model fit indices of research models are shown in Table 4.

Table 4. Overall model fit indices of research model

	Model 1	Model 2	Recommended value
Chi-square	318.931	291.487	
P- value	0.000	0.000	>0.05
Degree of freedom	127	111	
GFI	0.935	0.942	>0.90
AGFI	0.913	0.919	>0.80
NFI	0.951	0.955	>0.90
TLI	0.953	0.956	>0.90
CFI	0.961	0.964	>0.90
RMR	0.060	0.077	<0.05
RMSEA	0.061	0.060	<0.06

Hypotheses 1 and 2 examined the impact of trust on intention: Trust in members on Intention to use, and Trust in service providers on Intention to purchase. Trust in members has a significant impact on Intention to use in model 1 ($\beta = 0.482$, $p < 0.01$). Trust in service providers has a significant impact on Intention to purchase in model 2 ($\beta = 0.597$, $p < 0.01$). Trust in service providers has a significant impact on Perceived usefulness in model 1 ($\beta = 0.319$, $p < 0.01$) and model 2 ($\beta = 0.316$, $p < 0.01$). The impact of Perceived ease of use on Perceived usefulness is also significant in model 1 ($\beta = 0.292$, $p < 0.01$) and model 2 ($\beta = 0.292$, $p < 0.01$). The impact of Perceived usefulness on Intention to use is significant in model 1 ($\beta = 0.261$, $p < 0.01$). The impact of Perceived usefulness on Intention to purchase is significant in

model 2 ($\beta = 0.190$, $p < 0.05$). Therefore, hypotheses 1, 2, 3, 4a, 4b and 5 are accepted.

The results show that the effect of Trust in members on Intention to use is stronger than that of Trust in service providers. Also, Trust in service providers has an impact on Intention to use mediated by Perceived usefulness.

As shown in Figure 3 and Figure 4, the effect of Trust in service providers on Intention to Purchase is stronger than that of Trust in members.

Figure 3. Results of Model 1

Figure 4. Results of Model 2

5. Conclusion

The proliferation of the Internet and WWW has carried new business opportunities for organizations through electronic commerce. The growing commercial use of the Internet, however, introduces a new organization: the virtual community.

This paper proposed a theoretical model, which is based on the literature encompassing the areas of IS, technology acceptance. In the model, we investigated the impact of trust and the user acceptance under the virtual community environment. The model extended TAM, which is one of the most widely, used models for explaining user acceptance of various IS in the Internet context.

In this paper, we categorize trust into Trust in members and Trust in service providers. Trust is one of the most significant beliefs in explaining user acceptance of virtual communities. People come to virtual communities to exchange information. This exchange is based upon the trust that members have in

each other, and without this trust, there is no exchange. Also, virtual communities are the place where members purchase products which service providers sell. People trust the service providers, from which they make purchases, assuming that the vendor is reliable. Otherwise, no purchase would be made. By comparing two types of intentions, this study investigates the effect of trust: Trust in service providers on Intention to purchase and Trust in members on Intention to use. This research shows elements that are related to this trust. Trust in members has a stronger impact on Intention to use than Trust in service providers because the members of the virtual community are interested in providing information for other members and receiving information from other members. There must be an exchange of information among people who trust each other. When the users of a virtual community consider the information exchange, they are more sensitive to the Trust in members than the Trust in service providers. However, when the users of a virtual community are interested in the online purchasing, they concern the opportunistic behavior of vendors and the reliability and security of systems. Thus, Trust in service providers has a stronger impact on Intention to purchase than Trust in members. This result provides researchers with a solution to problems raised in user acceptance researches concerning the importance and role of trust.

The empirical findings suggest interesting insights. Both Trust in members and Trust in service providers appear to play an important role in determining behavioral intention to use virtual communities. The relative importance of the two constructs is different according to the types of intention.

5.1. Implications

The research shows that there are two distinct types of trusts: Trust in members and Trust in service providers. In the Internet environment, people work better with members or service providers they trust, while actively avoiding contact with those they do not trust. The service providers, who might have been guided by previous IS studies to underestimate the importance of trust, should focus the extent to which trust affects intentions. Trust has an impact on intentions, but its effects are task-dependent: Intention to use and Intention to purchase. Thus, the vendors should try to find out the purpose of users: i.e., whether it is to make a purchase or to just use the IS. Vendors would then be able to ascertain how to concentrate on the applicable type of trust. The vendors should try to find out which kind of trust they

need to develop to induce members to buy more items or just using the site more. Then the vendors can efficiently concentrate on their resource more for the business. 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. From the standpoint of CRM research, the theoretical contribution of the paper is to suggest an explanation for the linkage between trust and user acceptance.

5.2. Limitation and future study

In this paper, there are some limitations. First, a sample is gathered from only Cyworld. Thus the next research will be performed with various sample sources. The study used a research model in the context of a well-known virtual community provider, Cyworld. Even though we believe that the research has provided some valuable insights, generalizability of its findings might be limited in terms of other community service providers. Second, the model may be adjusted and developed by the type of customers' identity. We created a category of users by pooling together virtual community members who had used the virtual community for information exchange with each other. It is quite possible that further differentiation of users according to type of identity could result in crucial implication. Third, other factors that affect a user's acceptance should be considered. The constructs that mediate or affect the model enhance the rigorousness of research. The research model did not consider other beliefs and antecedents of trust, Perceived usefulness, and Perceived ease of use. Another issue of interest for additional research is the observation of the multi-dimensionality of trust. Trust is defined as one factor containing two or three related aspects. Also, the research model of in this paper posits linear relationships. It is quite possible that at least with regard to trust, the relationship is non-linear. It will probably be useful to adopt the level of trust. It is probable that a high or low degree of trust has a different influence on behavioral intentions. Further study considering these limitations could enhance the development of user acceptance of virtual communities. Moreover, additional factors have been shown to influence behavioral intention to use. These include individual differences such as playfulness, and self-efficacy.

6. References

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