

SOME ANTECEDENTS AND EFFECTS OF PARTICIPATION IN SPANISH VIRTUAL BRAND COMMUNITIES

1. INTRODUCTION

The Internet has come out as a new medium for social activities (Kim *et al.*, 2004) that favours the connection among individuals and organizations (Pitta *et al.*, 2005). Indeed, individuals are increasingly turning to computer-mediated communication in order to get information on which to base their decisions. For instance, many consumers are using several online formats to share ideas, build communities and contact other consumers who are seen as more objective information sources (Kozinets, 2002). These social groups have been traditionally called *virtual communities* (Rheingold, 1993) and have become the best way to exploit capabilities of internet interaction (Velez *et al.*, 2006).

However, although the importance of virtual communities is increasing day by day, few studies analyze the economic consequences associated to their existence. Indeed, most of the studies regarding these communities have been conducted at the conceptual level (Koh and Kim, 2004) and from a sociological perspective (e.g. Blanchard and Horan, 1998; Fox and Roberts, 1999). In this respect, this work presents two main contributions. Firstly, we analyze from a marketing point of view the effect of participation in a virtual community on the consumer loyalty to the product, brand or organization around which the community is developed. Secondly, we try to discover the main precursors of consumer participation in a virtual community since little is known about what motivations induce people to participate in virtual communities (Ridings *et al.*, 2002). More specifically, this work considers that propensity to trust, satisfaction in previous experiences, communication in the virtual community and familiarity with the community are the main antecedents of the consumer participation in a virtual community. To do that, this study focuses on open software virtual communities due to their great development in the last years.

Taking into account the previous considerations, this work is structured as follows. Firstly, we carry out an in-depth review of the relevant literature concerning the concept of virtual brand community and the variables included in the study. Secondly, we formalize the hypothesis and afterwards, we explain the process of data collection and the methodology employed. Lastly, the main conclusions of the work are discussed and the future research is presented.

2. THE CONCEPT OF VIRTUAL BRAND COMMUNITY

The virtual community concept is almost as old as the concept of Internet. However, the exponential development of these structures occurred during the nineties (Flavián and Guinalú, 2005) due to the appearance of the World Wide Web and the spreading of other Internet tools such as e-mail or chats. First of all, the concept of virtual community is defined by Rheingold (1993) as a social group that is originated in the Internet when people discuss in this communication channel. Thus, due to the Internet, virtual

communities can overcome the geographical barriers (Ziovas and Grigoriadou, 2007) and time constraints that exist in traditional communities (Andersen, 2005). As a result, virtual communities facilitate communication among people who share common interests (Carlen and Jobring, 2005). With a greater degree of complexity, Preece (2000) states that a virtual community is formed by:

- People with a wish for interaction among them in order to satisfy their needs,
- That share a particular interest which is the reason for the community,
- With certain norms that guide the relationships, and
- With computer systems that favour interaction and cohesion among the members.

Although it is possible to find several typologies of virtual communities (e.g. Élise *et al.*, 2007), this work focuses attention on virtual brand communities. According to Muniz and O'Guinn (2001), a brand community is a set of individuals who voluntarily relate to each other for their interest in some brand or product. Consequently, in a virtual brand community, these relationships are carried out through the Internet. Furthermore, Muniz and O'Guinn (2001) point out that a brand community is characterized by three core components:

- *Consciousness of kind.* It refers to the feeling which binds every individual to the other community members and the community brand (e.g. the passion for owning and driving a Saab).
- *Rituals and traditions.* These are processes carried out by community members who help to reproduce and transmit the community meaning in and out of the community. Members relate to each other with the memory of major events in the history of the brand and certain behaviors, such as a specific way of dressing.
- *Sense of moral responsibility.* This reflects the feelings which create moral commitment among the community members. Sense of moral responsibility encourages conjoint behaviours and enables stronger group cohesion. As a result of moral responsibility, there are two types of fundamental actions: (1) integration and retention of members, which guarantees the community survival (e.g. by spreading bad experiences suffered by those individuals who chose a different brand); and (2) support in the correct use of the brand (e.g. by sharing resources and information about product properties).

Besides, the importance of the virtual brand communities is continuously increasing because of three key aspects:

- Virtual communities can be used by individuals to take part in discussions in order to inform and influence fellow consumers about products, brands or organizations (Kozinets, 2002). These social groups have a real existence for their participants, and therefore, they can affect their members' behaviour (Muniz and O'Guinn, 2001). In fact, Almquist and Roberts (2000) found that consumer advocacy (e.g. peer recommendations in a virtual community) influences brand equity in a positive manner. Similarly, these relationships between consumers may influence brand choice (Wind, 1976) or the election of a specific service (Pitta *et al.*, 2005). In this respect, Lichtenberg (2006) points out the power of these communities, where consumers can gain information through online word of mouth.

- Virtual communities may help to identify and understand the needs, desires, relevant symbol systems and influences of particular individuals or groups of people (Kozinets, 2002).
- Active participation in virtual communities may favour higher levels of individuals' loyalty to the interest (e.g. a brand, a product, etc.) around which the community is developed (Koh and Kim, 2004). Indeed, by fostering interactive communities it is possible to increase the user's emotional connection to the brand (Lichtenberg, 2006). One example of a successful virtual brand community is found in MyCoke (<http://www.mycoke.com>), developed by The Coca-Cola Company, where more than eight million people use to participate frequently in.

3. LITERATURE REVIEW

In this section we carry out an in-depth review of the variables included in the study: participation in a virtual community, propensity to trust, satisfaction with previous interactions in the community, familiarity with the virtual community, perceived communication in the virtual community and loyalty.

3.1 Active Participation

Participation in the activities carried out in a virtual community is a crucial element to guarantee the community survival (Koh and Kim, 2004). In fact, due to the participation in these activities, virtual community members can share knowledge, information and experiences (e.g. Matsuura *et al.*, 2007), which is a key aspect in order to develop the consciousness of kind and group cohesion. In a similar way, Algesheimer *et al.* (2005) state that participation in these activities promotes the members' identification with the community and, consequently, the value of the community is increased. One example of community survival and development due to members' participation is found in Wikipedia (<http://www.wikipedia.org/>), where some members guarantee the survival and development of the community with their contributions.

Thus, following the recommendations of Koh and Kim (2004), to measure the individual participation in a virtual community this work considers the following factors:

- The effort to stimulate the community,
- The value of the comments posted in order to help other virtual community members,
- The excitement with which an individual posts messages and responses in the community, and
- The motivation to interact with other community members.

3.2 Propensity to trust

In general, propensity or disposition to trust refers to the generalised tendency of each individual to trust in others, regardless of who are the partner and the situation. In a similar way, McKnight *et al.* (1998) expose that propensity or disposition to trust is defined as a general willingness based on extended socialization to depend on others. Moreover, it is

important to note that this willingness to trust in others will vary among individuals. According to Hofstede (1980), individuals with different experiences, personalities and cultural contexts show significant differences in their propensity to trust.

Finally, propensity to trust is especially relevant in order to start a relationship (Ridings *et al.*, 2002), when there is not much information on the other party. Therefore, this factor could be especially important in the context of virtual communities due to the fact that individuals usually do not have much information about the other members of the community.

3.3 Satisfaction

Satisfaction can be defined as an affective consumer condition that results from a global evaluation of all the aspects that make up the individual relationship (Severt, 2002). More specifically, satisfaction can be divided into two distinct perspectives (Geyskens *et al.*, 1999). On the one hand, the first perspective considers satisfaction as an affective predisposition sustained by economic conditions. On the other hand, the second perspective, known as non-economic satisfaction, considers the concept using more psychological factors, such as a partner fulfilling promises or the ease of relationships with the aforementioned partner.

In this project, we will concentrate on the psychological perspective of satisfaction (Shankar *et al.*, 2003). From this point of view, satisfaction with a virtual community is considered as a global evaluation or attitude made by the individual about the behaviour of the virtual community resulting from the interactions produced by both parties in the relationship. Therefore, individual satisfaction is not the result of a specific interaction, but that of a global evaluation of the relationship history between the parties.

3.4 Familiarity

Traditionally, consumer familiarity has been defined as the consumer experience with a given product and it reflects the direct and indirect knowledge available to the individual (Alba and Hutchinson, 1987).

According to this, in the context of virtual communities, familiarity refers to the individual's knowledge regarding the activities carried out in the community and its members. That is, when a virtual community is familiar to an individual, he knows the specific characteristics of the virtual community, the particular language used in the community (Kozinets, 2002) and the tools employed to interact and to share files. As a result, familiarity with a virtual community may favour the relationship between an individual and other community members.

3.5 Communication

In general, communication can be defined as the formal and informal distribution of significant and updated information (Anderson y Narus, 1990). Furthermore, communication between the parties has been considered as a key element in the existence of a relationship (e.g. Bendapudi and Berry, 1997; Crosby and Stephens, 1987). Indeed, Duncan and Moriarty (1998) propose that communication is a human activity that joins people and generates relationships.

In the context of virtual communities, several authors have proposed that communication may help to transmit the community culture and identity (Newman, 2005). In addition, the speed and frequency of response when an individual posts a message can be considered as key elements of the communication in the community since they allow the creation of conversation. In this respect, Ridings *et al.* (2002) indicate that the whole existence of a virtual community is based on these postings and their responses. However, communication must be also effective; that is, responses must be valuable for the individual. If responses have no value, the individual will not be motivated to participate in that virtual community.

3.6 Loyalty

Loyalty development has been an objective traditionally aimed at by managers (Andreassen, 1999) since this not only enables higher future purchase intention, but also favours higher intensity in positive word-of-mouth (Hallowell, 1996), lower price sensibility (Lynch and Ariely, 2003) and more stable and bigger incomes (Knox and Denison, 2000). Indeed, loyalty has been considered to be a crucial aspect in order to achieve company success and sustainability over time (Flavián *et al.*, 2006; Keating *et al.*, 2003).

To be precise, loyalty may be defined as a non-random behaviour, expressed over time, which depends on psychological processes and closeness to brand commitment. More specifically, loyalty has been analysed from a two-fold perspective: attitudinal and behavioural (Bloemer and De Ruyter, 1998). Therefore, we can say that the concept of loyalty includes a psychological link (affective loyalty) and a behavioural component (Backman and Veldkamp, 1995). However, due to the fact that measuring the psychological aspects of loyalty is usually difficult (Opperman, 2000) we only consider loyalty from a behavioural point of view, which is the habitual research practice (Nilsson and Olsen, 1995).

4. HYPOTESIS FORMULATION

4.1 Antecedents of active participation in a virtual community

Traditionally, it has been considered that propensity to trust may be especially effective when the parties are still unfamiliar with one another (e.g. Mayer *et al.*, 1995), as might be the case in a virtual community (Ridings *et al.*, 2002) where it is very difficult to have information about all community members at the beginning of the relationship with the community. Thus, concerning virtual communities, an individual without much

information about the community but with a high propensity to trust will be more likely a potential member of the community than an individual with lower propensity. Therefore, we propose our first hypothesis:

H1: Greater user's propensity to trust is directly and positively related to greater participation in a virtual community.

As suggested by the Disconfirmation of Expectations Model (e.g. Spreng and Chiou, 2000), satisfaction reflects the degree to which expectations generated on previous occasions have been met. In this respect, satisfaction emerges when the value received in a relationship is equal (or greater) to the expected value. If we focus attention on how this satisfaction has been generated, we can see that the first phase consists of the individual having certain expectations with regard to the virtual community and its members. If these expectations are met, the individual will feel satisfied and motivated to interact with the members of that community, as the virtual community is capable of meeting its commitments. Following this, we propose our second hypothesis:

H2: Greater user satisfaction is directly and positively related to greater participation in a virtual community.

According to Gefen (2000), familiarity can help to decrease uncertainty in online relationships. If we focus attention on the context of virtual communities, familiarity should have a similar effect due to the special characteristics of these communities. Thus, in a virtual community, the perceived risk of a relationship is greater due to the inherent risk of virtual relationships and the lack of face-to-face contact (Ridings *et al.*, 2002). However, familiarity has been usually associated to a learning effect that can reduce that risk. Thus, an individual familiarized with a virtual community knows in detail the specific characteristics of the virtual community, the particular language used in the community (Kozinets, 2002) and the tools employed to interact and to share files. In sum, familiarity with a virtual community favours the individual skills in order to interact with other community members and, therefore, the participation in the virtual community may be increased. Similarly, these greater skills can also decrease the perceived risk of the relationships with other virtual community members. Therefore, we propose our third hypothesis:

H3: Greater user familiarity with a virtual community is directly and positively related to greater participation in that virtual community.

Communication has been traditionally considered as a major antecedent of trust and proximity feelings (e.g. Morgan and Hunt, 1994; Anderson and Narus, 1990). In fact, communication promotes trust since it improves the environment by aligning perceptions and expectancies and helping to solve conflicts (Morgan and Hunt, 1994). In sum, several authors have proposed that communication is a key element to establish a relationship (e.g. Bendapudi and Berry, 1997). Similarly, in the context of virtual communities, Ridings *et al.* (2002) expose that communication is a crucial aspect to increase the individual's desire to exchange information in a virtual community. These authors propose that communication in virtual communities can be represented by reciprocity; that is, repeated interactions over time. Therefore, if an individual posts several messages in a community

and there are no valuable responses, that individual will not feel motivated to participate in the activities carried out in the virtual community. Therefore, we propose that:

H4: Greater levels of communication in a virtual community are directly and positively related to greater levels of participation in that virtual community.

4.2 Effects of active participation in a virtual community

Traditionally, it has been considered that participation in activities carried out in a brand community may foster consumer loyalty to the brand around which the community is developed (Andersen, 2005; Algesheimer *et al.*, 2005; Muniz and O'Guinn, 2001). For instance, we can note the work of McAlexander *et al.* (2002), who found that participation in events of the Jeep community favours consumer identification and loyalty to the Jeep brand. Thus, it is reasonable to think that the effect of participation in a virtual brand community on consumer loyalty may be similar. In fact, once an individual participates actively in a virtual community, the consumer commitment, identification and emotional ties with the brand or organization around which the virtual community is developed can increase (Algesheimer *et al.*, 2005). Finally, all of these may favour higher levels of consumer loyalty to the brand around which the virtual community is developed (Koh and Kim, 2004). Therefore, we propose our last hypothesis:

H5: Greater participation in a virtual community is directly and positively related to greater consumer loyalty to the brand around which the community is developed.

To sum up, the hypothesized model can be seen in the following figure:

TAKE IN FIGURE 1

5. DATA COLLECTION

Data were collected thanks to a web survey using Spanish-speaking members of several virtual communities. This method of collecting the data is consistent with the habitual research practice in the online context (e.g. Bagozzi and Dholakia, 2006; Steenkamp and Geyskens, 2006). More specifically, we select the open source software as the mutual interest around which virtual communities must be developed because of two main reasons: (1) the great number of open software virtual communities that exist and (2) the existence of other choices that can replace the use of the open software, which allows us to test the effect of participation in virtual communities on customer loyalty to the open software. In addition, it is important to note that open source communities may be considered as brand communities since the three core components of these brand communities are present in the open source communities (Bagozzi and Dholakia, 2006). In order to obtain the responses several posts were included on heavy traffic online media websites, email distribution lists and well-known electronic forums (all of them related to the open source software). The selection of the websites to promote the research was founded on: (1) the level of awareness among the Spanish-speaking users of open source software, (2) traffic level and (3) availability.

Besides, it is important to note that subjects were allowed to choose the virtual community to analyze, as the objective of this project was to understand the behaviour of the virtual community members. However, it was a pre-requisite that the subject was registered as a member of that virtual community. To be precise, subjects had to respond to several questions about their levels of familiarity, satisfaction, communication and participation in the virtual community they had selected as well as about their propensity to trust and loyalty to the free software, which is the mutual interest around which all virtual communities included in this study are developed. All questions were measured on a seven-point Likert scale.

We obtained 145 valid questionnaires (atypical cases, repeated responses and incomplete questionnaires were controlled) from members representing more than 50 open source different communities. Finally, it is important to note that according to the specific characteristics of the population and the great number of virtual communities analyzed, we consider that our sample was representative. In addition, we compared the sociodemographical characteristics of the sample with other studies on open source communities (Bagozzi and Dholakia, 2006) and results were very similar (see table 1).

TAKE IN TABLE 1

6. METHDOLOGY

6.1. Content and face validity

The scale development was founded on the review of the most relevant literature on relationship marketing and e-marketing (see table 2). This review guaranteed the content validity of the measurements instruments. The constructs were measured by a multi-item scale. Thanks to the review an initial set of items was proposed too. Due to the scarcity of valid scales adapted to the context of virtual communities, it was necessary to adapt the initial scales in order to guarantee their face validity. Face validity is defined as the degree that respondents judge that the items are appropriate to the targeted construct (Anastasi, 1988), and is habitually confused with content validity. In fact, only 19.5% of the most relevant tested scales in marketing include this kind of validity analysis (Herdesty and Bearden, 2004). Face validity was tested through a variation of the Zaichkowsky method (1985), whereby each item is qualified by a panel of experts as “clearly representative”, “somewhat representative” or “not representative of the construct of interest”. Items were retained if a high level of consensus was observed among the experts (Lichtenstein *et al.*, 1990).

TAKE IN TABLE 2

6.2. Analyses of reliability and dimensionality

In order to validate the proposed measurement scales, we carried out several analyses of reliability and dimensionality. Firstly, we assessed the reliability of the proposed scales by using the statistical software SPSS 14.0. To be precise, we followed these criteria:

- The Cronbach alpha indicator was used to assess the initial reliability of the scales, considering a minimum value of .7 (Cronbach, 1970; Nunnally, 1978). All items were adjusted to the required levels.
- The item-total correlation was used to improve the levels of the Cronbach alpha, considering a minimum value of .3 (Nurosis, 1993).

We then proceeded to evaluate the unidimensionality of the proposed scales. Factor extraction was based on the existence of eigenvalues higher than 1. In addition, it was required that factorial loadings were higher than .5 points and a significant total explained variance. To do that, we employed the factorial analysis (principal components analysis with varimax rotation). Only one factor was extracted from each scale: participation, familiarity, satisfaction, propensity to trust, communication and loyalty.

7. RESULTS

To test the proposed hypothesis we carried out two linear regressions where we included the different variables of the study. These variables were measured through the factorial punctuations obtained in the previous factor extraction.

Firstly, we analyzed the antecedents of the consumer participation in a virtual community. Results allow us to check the existence of a direct, positive and significant effect of propensity to trust (H1), satisfaction in previous experiences (H2), familiarity with the community (H3) and communication level in the virtual community (H4) on the individual participation in a virtual community. To be precise, hypothesis 2 was supported at the level of .01, hypothesis 3 and 4 were supported at the level of .05, and hypothesis 1 was supported at the level of .1 (see table 3). Besides, It was also notable that participation in a virtual community can be explained at a high level ($R^2 = .448$) by using only these antecedents.

TAKE IN TABLE 3

Secondly, we studied the possible effect on consumer loyalty associated to the individual participation in a virtual brand community (hypothesis 5). According to the results of the second regression, we observed that this hypothesis was supported at the .01 level (see table 4). Finally, consumer loyalty to the brand around which the virtual community is developed can be also clearly explained ($R^2 = .182$) by using only one antecedent: the consumer participation in the virtual community.

TAKE IN TABLE 4

8. DISCUSSION

The importance of virtual communities is continuously increasing due to the fact that individuals are turning to computer-mediated communication in order to get information on which to base their decisions (Kozinets, 2002). However, although the importance of

virtual communities is increasing every day, few studies analyze the economic consequences associated to their existence. Therefore, a first contribution of this work is the fact that we find a positive and significant effect of individual participation in a virtual community on consumer loyalty to the brand or organization around which the community is developed (in this case, the open software). This can be explained by the development of emotional ties with the brand that emerge as a consequence of the interactions with other community members, which are usually based on topics related to the brand around which the community is developed (experiences with different products of the brand, support in the correct use of the brand, etc.). In short, the development of virtual communities in which its members participate actively in the community activities is associated to several benefits for both the individuals and the organizations around which the community is developed. On the one hand, community members can satisfy some of their needs such as: sharing information, establishing relationships with people with similar problems and experiences and so on. On the other hand, participation in a virtual community can increase the consumer loyalty to the brand around which the community is developed.

Similarly, a second contribution of this work is that participation in a virtual brand community can be explained at a high level ($R^2 = .448$) by the direct effect of propensity to trust, satisfaction, familiarity and communication on the individual participation in a community.

8.1. Managerial Implications

The high costs every company has to face in order to win new customers make it increasingly necessary to reinforce the ties established with customers. In this respect, this study offers some alternatives in order to increase the loyalty to a brand thanks to the development of virtual communities and the promotion of consumers' participation in the activities carried out in those communities:

- First of all, firms should promote communication and group cohesion in the community in order to encourage interactions among community members and to guarantee the community survival in the long term. To do that, it would be a good idea to carry out actions that may increase the consumers' commitment to the virtual community. For instance, firms should organize meetings among community members and ask them for suggestions about products.
- Secondly, firms should increase the consumers' familiarity with the community. To do that, firms should promote their virtual communities among consumers. For instance, it would be interesting to include a reference to the community in the brand products or advertisements.
- Thirdly, firms should try to satisfy in the virtual community some of the consumers needs (e.g. by offering detailed information about products or making special offers to virtual community members). Thus, individuals will perceive that they can satisfy their needs and demands in the virtual community and, consequently, they will be motivated to participate in the community.
- Lastly, to guarantee the sustainability of the virtual community, the evolution of its members' needs and interests should be constantly analyzed (Wang et al., 2002).

Following the above recommendations, the level of consumers' participation in a virtual brand community may increase. Consequently, consumers could develop greater emotional feelings and loyalty to that brand, which is a major objective for most of the organizations (Andreassen, 1999).

8.2. Future Research

First of all, it would be a good idea to analyze in more detail the antecedents of active participation in a virtual community. It is possible that some variables such as trust placed in the virtual community or the perceived privacy and security in the relationship with other community members may influence the level of participation in the activities carried out in a virtual community.

Secondly, it would be also interesting to study the existence of other effects associated to the participation in virtual communities. More specifically, it would be useful to carry out a quantitative assessment of the impact of virtual communities in consumer trust and commitment to the brand around which the community is developed, due to the fact that trust and commitment are two key variables to establish successful long-term oriented relationships.

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ANNEX I: MEASUREMENT SCALES

The individual is asked to grade from 1-7 their level of agreement or disagreement with the following statements in relation to the selected virtual community.

PROPENSITY TO TRUST	
PT1	I think that individuals always tell the truth
PT2	I think that individuals prefer to help others instead of looking for their own benefit
PT3	I think that most of the individuals are honest
PT4	Individuals usually try to cooperate among them
PT5	If I act in a correct manner, I think that people will correspond me in a similar way
FAMILIARITY	
FAM1	In general, I'm familiarized with this virtual community
FAM2	Compared to other community members, I'm very familiarized with this virtual community
FAM3	I'm very familiarized with the activities carried out in this virtual community
COMMUNICATION	
COMMU1	In general, most of the community members use to participate in the virtual community activities
COMMU2	In general, most of the community members pay attention to other members' posts
COMMU3	In general, most of the community members use to respond to other members' posts
COMMU4	In general, most of the community members add valuable comments to the other members' posts
COMMU5	In general, most of the community members keep me informed about the topics I'm interested in

SATISFACTION	
SAT1	Being a member of this virtual community has been a right decision
SAT2	My experience in this virtual community has been satisfactory
SAT3	In general, I'm satisfied with the benefits I obtain in this virtual community
PARTICIPATION	
PARTI1	In general, I'm very motivated to participate actively in the virtual community activities
PARTI2	In general, I use to stimulate our virtual community
PARTI3	I usually provide useful information to other community members
PARTI4	In general, I posts messages and responses in the community with a great excitement and frequency
LOYALTY	
LOY1	I will continue using free software products in the future
LOY2	In general, I use to look for free software products in order to satisfy my needs
LOY3	In general, I try to use any free software product

These scales were presented in Spanish due to the interviewee's nationality.

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Figure 1 Research Model

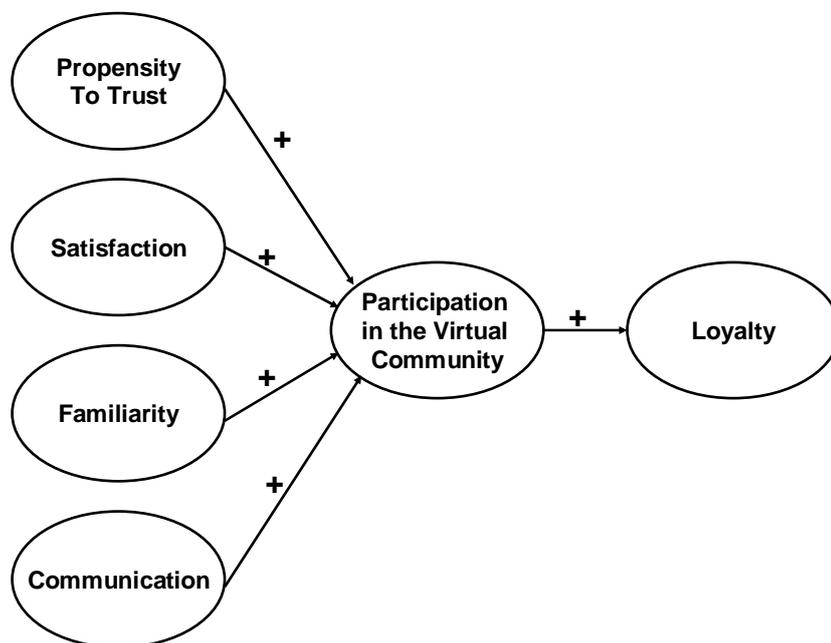


Table 1 Representative nature of the data collected

		Present Research	Bagozzi and Dholakia (2006)
<i>N</i>		145	402
<i>AGE</i>	Mean	32.2	31.1
	Range	16 to 70	18 to 73
<i>GENDER</i>	Male	89%	88.10%
<i>AVERAGE EXPERIENCE (years)</i>		3.84	4.62

Table 2 Content Validity

Variable	Adapted from
<i>Propensity to trust</i>	Ridings <i>et al.</i> (2002)
<i>Familiarity</i>	Gefen (2000); and Gursoy (2001)
<i>Communication</i>	McMillan <i>et al.</i> (2005); and Chiou <i>et al.</i> (2004)
<i>Satisfaction</i>	Brockman (1998); Severt (2002); Janda <i>et al.</i> (2002); and Smith and Barclay (1997)
<i>Participacion</i>	Koh and Kim (2004); and Algesheimer <i>et al.</i> (2005)
<i>Loyalty</i>	Algesheimer <i>et al.</i> (2005); and Teo <i>et al.</i> (2003)

Table 3 Antecedents of participation in a virtual community

VARIABLE	NON-STANDARDIZED COEFFICIENTS		STANDARDIZED COEFFICIENTS	T	Sig.	Hypothesis
	Beta	Error t _{íp.}				
<i>Constant</i>	1.18E-16	.062		0	.1	
<i>PC</i>	.119	.063	.119	1.888	.061	H1
<i>SAT</i>	.157	.077	.157	2.031	.044	H2
<i>FAM</i>	.501	.074	.501	6.813	.000	H3
<i>COMU</i>	.152	.065	.152	2.331	.021	H4

Table 4 Consequences of participation in a virtual community

VARIABLE	NON-STANDARDIZED COEFFICIENTS		STANDARDIZED COEFFICIENTS	T	Sig.	Hypothesis
	Beta	Error t _{íp.}				
<i>Constant</i>	-5.48E-17	.075		0	.1	
<i>PARTI</i>	.426	.075	.426	5.695	.000	H5