Just small talk? The impact of interpersonal interaction in virtual web communities on new-product adoption

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Abstract: While marketers have largely recognised website design and its value, interaction mechanisms are widely underexplored features of virtual communities. We argue that not only the presence of interpersonal interaction – but also its type – play key roles in how consumers experience virtual communities. In our study, we demonstrate a main effect of interpersonal interaction on relevant variables of consumers’ willingness to adopt a new product introduced in the virtual community. Moreover, we analyse the role different actors can play. Our findings reveal the importance of company-representing experts in such virtual environments, shedding light on a new tool for marketers to further benefit from web communities.

Keywords: interpersonal interaction; virtual web communities; user interaction; expert interaction; consumer behaviour; product innovations; new-product adoption; experimental study.

1 Introduction

The internet has significantly altered consumers’ information seeking and communication behaviours, allowing people all over the world to get in touch with each other via just a few clicks (Kozinets, 1999). The advent of virtual communities also offers unprecedented possibilities for consumers to interact with others (Bagozzi and Dholokia, 2002). Such virtual communities not only facilitate consumer-consumer interaction on any topic, but are increasingly attracting the attention of firms eager to communicate with these groups. In the context of market research, virtual communities can provide a vast amount of relevant information such as the preferences and motivations of individuals. As such, academics are increasingly exploring virtual communities. However, previous studies neglect a deeper analysis of the effect of interaction between different types of actors (e.g., users, and experts) in communities. For this reason it is unclear whether marketers are advised to enter such spaces or leave them untouched. Do customers just want to stay among themselves, or is there a need for additional actors, like opinion leaders, company representatives or market-mavens?

To the best of our knowledge no study yet explores which interactivity elements should be offered within a virtual community. Many companies integrate virtual communities with their existing websites and use them as a platform for communication issues. However, there is great ambiguity concerning the design of such communities in terms of interactivity. This study thus offers insight into which configuration of interactivity ‘options’ holds the most promise for firms.

As a first step, virtual communities with and without interactivity are compared experimentally along relevant variables of consumer behaviour. Building on these findings, a second experiment then tests the benefit of interactivity with different actors within a community. Before turning to describe our experiments and their results in more detail, we first review relevant literature on virtual communities and their effects.
2 The concept of virtual communities

In this study, we define virtual web communities as “social aggregations that emerge from the net when enough people carry on public discussions long enough with sufficient human feeling to form webs of personal relationships in cyberspace” [Rheingold, (1993), p.5]. Several dimensions of this definition are important to unpack. First is the issue of whether the consumer of material posted within a virtual community is able to themselves interact with the presented material. In other words, is the consumer of knowledge themselves able to interact? If yes then the community is deemed interactive with respect to them, if not, then the community is not interactive from their perspective. A second key dimension of the definition to consider is with whom such ‘personal relationships’ are forming between. They may be between consumers, between a consumer and an expert, or even between experts. Additionally, while this definition stresses the social perspective of virtual communities, such groups also offer many opportunities for companies to benefit (Wiertz and de Ruyter, 2007). In many cases virtual communities initially form to discuss shared consumer interests, but quickly spread to include topics such as product quality, pricing, and service. These groups naturally come to wield considerable purchasing power (Hagel and Armstrong, 1997). Users are also able to interact with people all over the world who have experience or information regarding relevant products or services (Ratchford et al., 2001). They can easily share their experience, opinions, and knowledge with others, deepening involvement. In this respect, the participation of consumers in a virtual community leads to a higher demand for the presented product (Bickart and Schindler, 2001). Therefore, from a marketers’ point of view virtual communities are of interest.

In order to provide a framework to better understand virtual communities and their underlying mechanism, three relevant theories are introduced and applied to this community context. First, we discuss social identity theory (SIT), a major theory related to the formation of groups and the self-definition of group members (Hopkins and Hopkins, 2002). The underlying assumption of SIT is that individuals always seek to achieve, and permanently increase, positive self-esteem through membership in social groups (Banaji and Prentice, 1994). A person’s social identity then emerges as a byproduct of membership itself and is an important determinant for members’ participation in virtual communities (Bagozzi and Dholokia, 2002; Dholakia et al., 2004). Second, virtual communities are also informed by the concept of Psychological Sense of Community (PSOC) (Chavis and Pretty, 1999). PSOC describes the extent to which members of a community identify themselves with a community itself (Fisher and Sonn, 1999). Finally, social exchange theory is used to help understand the interdependences between individuals in social interactions and relationships. Together these theories form a comprehensive approach to understanding social interactivity (Piontkowski, 1982).

Within the marketing literature several empirical and conceptual studies address the topic of virtual communities. They mainly deal with the social aspects, such as identifying the determinants of consumers’ participation in communities, or the influence of participation (Bagozzi and Dholokia, 2002; Dholakia et al., 2004; Foster et al., 2012; Kim et al., 2004, 2008; Ma and Agarwal, 2007). What is termed a ‘sense of virtual community’ stems from impersonal trust, member similarity, and needs (Ellonen et al., 2007). Beyond the social perspective, additional studies examine consumer-related or brand-related issues. Such studies point to the positive effects resulting from membership within a community. These effects include increased loyalty and commitment as well as
faster product adoption (Algesheimer et al., 2005; Czaplewski and Gruen, 2004; Hickman and Ward, 2007; McAlexander et al., 2002; Muniz and O’Guinn, 2001; Thompson and Sinha, 2008). Research also stresses that involvement in virtual communities requires a brand to adopt, and constantly adjust, their positioning within the marketplace (Huang et al., 2005). However, the effect of interactive communication between a company and its customers has yet to be examined (Sicilia et al., 2005). Our study fills this research gap by examining the effect of interpersonal interaction within virtual communities. We next turn to developing hypotheses, taking into account theoretical and empirical considerations.

3 Hypotheses development

3.1 Purchase intention

In consumer behaviour research purchase intention is often used as an indicator of actual purchase behaviour (Miniard et al., 1983). Here, we adopt Howard’s (1994, p.41) definition of purchase intention as “a mental state that reflects the buyer’s plan to buy some specific number of units of a particular brand in some specified time period”. Prior research demonstrates that the two-way exchange of positive information among consumers (e.g., expert knowledge or personal opinions) has a significant positive effect on consumers’ purchase intention (Hennig-Thurau and Hansen, 2001) both offline and online (McMillan, 2002). For our study this research suggests that interactivity among users, within the community, and therefore exchange of information, leads to higher purchase intention. Thus, the following hypothesis can be put forth:

\[ H_1 \text{ Purchase intention (with respect to the product presented in the community) in a virtual community with interactivity is greater than purchase intention (with respect to the product presented in the community) in a virtual community without interactivity.} \]

3.2 Word of mouth communication

Word of mouth advertising (WOM) refers to “oral, person to person communication between receiver and a communicator whom the receiver perceives as noncommercial, concerning a brand, a product or a service” [Arndt, (1967), p.3]. In the context of virtual communities, WOM refers to any positive statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions through the internet (Hennig-Thurau et al., 2004). It has been empirically shown that interactivity has a positive influence on word of mouth communication (Gremler and Gwinner, 2000), supporting research that increased time on a website boosts WOM (Ellonen et al., 2010). It has also been shown that the mere perception of higher website interactivity boosts WOM (Song and Zinkhan, 2008). Applied to the present context, these considerations lead to the formulation of the following hypothesis:

\[ H_2 \text{ Word of mouth communication (with respect to the product presented in the community) in a virtual community with interactivity is greater than word of mouth communication (with respect to the product presented in the community) in a virtual community without interactivity.} \]
3.3 Information content

Generally, the key characteristics of a website can be categorised in terms of design and content (Huizingh, 2000). Content refers to the features, services, and information offered on the website. Information given in a virtual community should be on the one hand sufficient for the consumer to satisfy the desire for information, and, on the other hand, brief so as to avoid giving too much information and resulting in information overload (Keller and Staelin, 1987). Such findings, in the context of this study, point to investigating consumers’ perceived information content regarding a specific virtual community with and without interactivity as interpersonal interactivity in virtual communities leads to an exchange of information. Hence, we propose:

\[ H_3 \quad \text{Perceived information content in a virtual community with interactivity is greater than perceived information in a virtual community without interactivity.} \]

3.4 Trust in virtual community

Fukuyama (1995, p.26) defines trust in a virtual community as “the expectation that arises within a community of regular, honest, and cooperative behavior, based on commonly shared norms, on the part of other members of that community”. Virtual communities can stimulate the development of trust by providing the possibility of social interactivity to their members, which allows community members to share information and experiences. By means of a meta-analysis Williams (2001, p.379) highlights that “researchers from diverse fields agree that trust develops through repeated social interaction that enable people to update their information about trustworthiness”. Prior research also points to the important role of trust in building virtual communities (Ellonen et al., 2007). Therefore, it is reasonable to assume that increasing interactivity between users in a virtual community will lead to trust in the place of information exchange. Hence:

\[ H_4 \quad \text{Trust in a virtual community with interactivity is greater than trust in a virtual community without interactivity.} \]

Having developed hypotheses, we now turn to detailing the design of our two studies examining them.

<table>
<thead>
<tr>
<th>Item</th>
<th>Text</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC1</td>
<td>How relevant was the information?</td>
<td>Mishra et al. (1993)</td>
</tr>
<tr>
<td>IC2</td>
<td>How important was the information?</td>
<td></td>
</tr>
<tr>
<td>IC3</td>
<td>How useful was the information?</td>
<td></td>
</tr>
</tbody>
</table>
Table 1 Construct and scale items (continued)

<table>
<thead>
<tr>
<th>Item</th>
<th>Text</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVC1</td>
<td>The virtual community of dual impact is very reliable.</td>
<td>Hess (1995)</td>
</tr>
<tr>
<td>TVC2</td>
<td>The virtual community of dual impact is genuinely committed to my satisfaction.</td>
<td></td>
</tr>
<tr>
<td>TVC3</td>
<td>The virtual community of dual impact will do whatever it takes to make me happy.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Text</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI1</td>
<td>The probability that I would consider buying the product is…</td>
<td>Dodds et al. (1991)</td>
</tr>
<tr>
<td>PI2</td>
<td>My willingness to buy the product is…</td>
<td></td>
</tr>
<tr>
<td>PI3</td>
<td>The likelihood of purchasing this product is…</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Text</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOM1</td>
<td>I encourage friends and relatives to buy this smartphone.</td>
<td>Gremler and Gwinner (2000)</td>
</tr>
<tr>
<td>WOM2</td>
<td>I recommend this smartphone whenever anyone seeks my advice.</td>
<td></td>
</tr>
<tr>
<td>WOM3</td>
<td>When the topic of smartphones comes up in conversation, I go out of my way to recommend this smartphone.</td>
<td></td>
</tr>
</tbody>
</table>

4 Study 1: Investigating the base effect of interactivity in virtual communities

4.1 Design and procedure

The objects of investigation in our first study are the four variables explicated in our hypotheses, namely purchase intention, WOM, information content, and trust. The goal of our first experiment is to explore the impact of interactivity on virtual communities. For this purpose we both created and manipulated a virtual community to analyse the base effect of interactivity. This was done within a web-based field experiment and involved directing participants to the internet website of a fictitious manufacturer of mobile devices. Within this website lay a virtual community.

The community included the preannouncement of a mobile device along with related information. The upcoming product was a smartphone called ‘di1’, created with the help of a graphic designer. The virtual community contained several pages detailing the smartphone’s properties, specifications, and pictures, as well as a 3D model. An electronic device was used in the study following pretest information indicating widespread adoption and familiarity with the category. A fictitious manufacturer was created to avoid potential bias stemming from previous experiences on the part of subjects.
Recruitment of participants took place both online and offline using a variety of mediums. Online recruiting included newsletters, mailing lists, newsgroups, and discussion forums. Offline, participants were recruited through on-campus interceptions and advertisements. Both online and offline recruiting were employed in order to reduce the self-selection bias common to pure online recruitment as well as to increase the representativeness of the sample.

Experimental procedures commenced with participants being randomly divided into two groups: Experimental (EX₁ – with interactivity) or Control (CG – without interactivity). Both groups were first directed to a community containing information about the fictitious new smartphone. However, only one group was given access to an additional feature: a discussion forum. Within this discussion forum participants could...
interact with each other and with representatives from the smartphone company. A manipulation check was used to ensure that participants in the Experimental group actually used the chance to interact with others. Members of the Control group did not have the possibility to contact each other or experts. Both groups were free to explore their assigned community at will and without time limits. All participants were instructed to log out after visiting the community and were forwarded to an online questionnaire which included measurement variables and demographic information.

During the four-week study 303 people participated in the survey with 211 people entirely completing the questionnaire. Of these 211 completions, participants were 48.2% female and 51.8% male, with an average age of 34.1 years. Participants in the control group spent an average of 4 minutes perusing the site before continuing on to the survey, while participants in the discussion-enabled group spent an average of 9.25 minutes on the site before moving to the survey. Average time to complete the survey was 7.5 minutes, with no significant difference between the two conditions.

4.2 Measurement and results

Several steps were conducted in building the online questionnaire. All measurement items were based on existing studies and were adapted to the object of our investigation. All items were measured using a seven-point Likert scale ranging from 'strongly disagree (1)' to 'strongly agree (7)'. A pretest of 30 persons was conducted to ensure no unanticipated difficulties. Comments and suggestions garnered from the pretest were incorporated into the final questionnaire.

### Table 2 Final construct measurement

<table>
<thead>
<tr>
<th>Construct</th>
<th>Source</th>
<th>Item(s)</th>
<th>Cronbach’s α</th>
<th>Factor loadings</th>
<th>Explained variance</th>
<th>Factor reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust in virtual community: TVC</td>
<td>Hess (1995)</td>
<td>3</td>
<td>.92</td>
<td>.91–.94</td>
<td>.86</td>
<td>.92</td>
</tr>
<tr>
<td>Information content: ICVC</td>
<td>Mishra et al. (1993)</td>
<td>3</td>
<td>.95</td>
<td>.94–.96</td>
<td>.90</td>
<td>.95</td>
</tr>
<tr>
<td>Purchase intention: PI_P</td>
<td>Dodds et al. (1991)</td>
<td>3</td>
<td>.95</td>
<td>.94–.96</td>
<td>.91</td>
<td>.95</td>
</tr>
<tr>
<td>Word of mouth: WOM_P</td>
<td>Gremler and Gwinner (2000)</td>
<td>3</td>
<td>.96</td>
<td>.95–.97</td>
<td>.93</td>
<td>.96</td>
</tr>
</tbody>
</table>

A variety of common checks were conducted to ensure adequate construct performance. These included computation of Cronbach’s alpha for each construct, as well as analysis of explained variance and factor loadings using exploratory factor analysis to assess construct validity (Gerbing and Anderson, 1988). Results are shown in Table 2. Discriminant validity between the constructs was also assessed using Fornell and Larcker’s (1981) test with results showing that discriminant validity was present.

As a first step in performing analysis of variance we computed Pearson’s correlation matrix. In line with recommendations for analysis of variance in cases of relatively high correlations between dependent variables (Hair et al., 2006), and given Bartlett’s test of sphericity (Dzubian and Shirkey, 1974) results indicating a basic population in which
the dependent constructs are also highly correlated ($p < .01$), a multivariate analysis of variance (MANOVA) was employed.

Results of the MANOVA indicate significant differences between the Experimental group (EX1 – the community with interaction) and the Control Group (CG – the community without interaction) with significant test statistics for both Pillai-Spur ($F = 2.396$) and Wilks-Lambda ($F = 2.414$), as shown in Table 3.

**Table 3** Results of MANOVA study 1

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variable</th>
<th>VC without interaction</th>
<th>VC with interaction</th>
<th>$F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>PIP</td>
<td>3.04</td>
<td>3.69</td>
<td>5,371</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>H2</td>
<td>WOMP</td>
<td>3.40</td>
<td>3.99</td>
<td>5,688</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>H3</td>
<td>ICVC</td>
<td>3.43</td>
<td>4.00</td>
<td>4,953</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>H4</td>
<td>TVC</td>
<td>3.09</td>
<td>3.55</td>
<td>4,939</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

Analysis of variance reveals a significant difference between the two groups on trust in the virtual community ($F = 4,939$, $p < .01$; $M_{Trust with Interaction} = 3.55$; $M_{Trust without Interaction} = 3.09$), highlighting that the possibility to interact with others positively influences trust in a virtual community and supporting H4. Findings also indicate the perception of higher information content in the interactive community as compared to control, supporting H3 ($F = 4,953$, $p < .01$; $M_{Information Content with Interaction} = 4.00$; $M_{Information Content without Interaction} = 3.43$). Participants of the experimental group who had visited the virtual community with interaction also had a significant higher purchase intention regarding the presented product as compared to participants in the control group. This supports the acceptance of hypothesis H1 ($F = 5,371$, $p < .01$; $M_{Purchase Intention with Interaction} = 3.69$; $M_{Purchase Intention without Interaction} = 3.04$). Finally, H2 is supported as participants in the experimental group had higher word of mouth intention than those in the control group who had no possibility to interact with others ($F = 5,688$, $p < .01$; $M_{WOM with interaction} = 3.99$; $M_{WOM without interaction} = 3.40$). MANOVA results are summarised in Figure 2.

**Figure 2** Mean value differences of the marketing-related variables, study 1
5 Study 2: Assessing different types of interpersonal interaction

5.1 Procedure

In our second study, we examine the question of whether interaction type affects its effect. More specifically, we differentiate between the type of user that participants interact with. This stems from research identifying member support activities as affecting their resultant behaviour (Kim et al., 2004). One condition permitted interaction solely between participants while a second condition had participants interact with experts, by which we mean manufacturer-representatives acting as competent contact persons within the virtual community. A second survey was carried out in which 212 participants fully completed the questionnaire. The experimental design included two additional treatment groups: EX2 (user-expert interaction; \(n = 107\)) and EX3 (user-user interaction; \(n = 105\)). EX2 participants solely interact solely with fictitious product experts (company representatives) within the virtual community. Experts were apparent through their use of the manufacturer’s logo as well as a special signature in their forum posts. Interaction with non-expert users was prevented within the discussion forum software. In EX3 no product experts were present in the virtual community. Users could only interact with each other. Study 1 control group data served as a baseline (no interaction; \(n = 106\)). The remaining procedure, measurement, and evaluation were analogous to study 1.

Table 4 Results of MANOVA study 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean values</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>User-user interaction</td>
<td>User-expert interaction</td>
<td>(F)</td>
<td>(p)</td>
<td></td>
</tr>
<tr>
<td>TVC</td>
<td>3.33</td>
<td>3.80</td>
<td>6,439</td>
<td>&lt; .01</td>
<td></td>
</tr>
<tr>
<td>ICVC</td>
<td>3.76</td>
<td>4.26</td>
<td>5,193</td>
<td>&lt; .01</td>
<td></td>
</tr>
<tr>
<td>PIP</td>
<td>3.29</td>
<td>3.93</td>
<td>7,071</td>
<td>&lt; .01</td>
<td></td>
</tr>
<tr>
<td>WOMp</td>
<td>3.81</td>
<td>4.33</td>
<td>8,688</td>
<td>&lt; .01</td>
<td></td>
</tr>
</tbody>
</table>

5.2 Results

A comparison of the mean values of the experimental groups EX2 and EX3 and control group CG reveals differences regarding consumers’ trust in the virtual community, with interaction with experts yielding higher scores (\(M_{\text{Trust User-User Interaction}} = 3.33\); \(M_{\text{Trust User-Expert Interaction}} = 3.80\)). Furthermore, a look at the means of the experimental groups EX2 and EX3 shows that perception of perceived information content is higher for those test-persons who had the opportunity to interact with experts within the virtual community (\(M_{\text{Information Content User-User Interaction}} = 3.76\); \(M_{\text{Information Content User-Expert Interaction}} = 4.26\)). For purchase intention, there are also significant differences in the means with the highest difference (\(\Delta = .64\)) seen from a comparison of the means of EX3 and EX2 (\(M_{\text{Purchase Intention User-User Interaction}} = 3.29\); \(M_{\text{Purchase Intention User-Expert Interaction}} = 3.93\)). Finally, there is also a difference between experimental groups EX2 and EX3 with respect to the word of mouth intention of participants (\(M_{\text{WOM with User-User Interaction}} = 3.81\); \(M_{\text{WOM with User-Expert Interaction}} = 4.33\)). The results of study 2 can be summarised by stating that interaction with experts results in the highest positive influence on all dependent variables (c.f., Figure 3).
6 Recommendations for successful community management

Apart from academic contributions, the studies conducted provide valuable input for practical community management. In the following section, we describe recommendations for successful community management based on the results of the two studies.

Figure 4 highlights three different versions of a virtual community as well as possible strategies for community management. Depending on certain conditions, these strategies can be applied to achieve companies’ desired goals. These conditions are shown on the two axes. The horizontal axis differentiates virtual communities in terms of their operation costs and ranges from low to high. These costs include, for example, the operating costs of a discussion board as well as the costs of the employed experts. Along the vertical axis the specificity of exchanged information is displayed. This refers to the extent of product-or business-relevant information resulting from interaction between the different actors.

Pure user-expert interaction can be identified as the most advantageous alternative to interpersonal interaction with regard to the observed constructs of trust, purchase intention, word of mouth communication, and perceived information content. In this configuration the community users can exclusively interact with experts; interpersonal interaction between users is not possible. High specificity of information exchanged as well as high control over the interaction are advantages for the firm. A clear disadvantage, however, are the high costs incurred in operating such a community. Furthermore, if experts answer question to slowly this might lead to dissatisfaction amongst some members of the community.

The following strategy could be applied to solve the problems listed above: extension of pure user-expert interaction to include the possibility of user-user interaction. This allows a reduction in the number of provided experts and consequently a decrease in the total costs of running the community. Additionally, the problem of delayed response rates can be mitigated, since users can help each other by answering questions. From an economic perspective, this strategy provides a convenient means of cost cutting without a reduction in the specificity of information exchanged. Finally, this strategy can also be applied preventively, to avoid the risk of a ‘slip-off’ (c.f., Figure 4).
Just small talk?

Figure 4  Strategies for a successful community management

In a community with pure user-user interaction, members can interact exclusively among themselves and experts are not present. A major advantage of this kind of community is the low costs involved. However, there are two major disadvantages. First, communities characterised by pure user-user interaction tend to possess a relatively high share of ‘off-topic’ issues. This is reflected in the low specificity of the information exchanged. Second, a problem arises regarding the inability to control interaction between the users. This represents a major threat, since negative or unfavourable information can be shared and diffused freely. Due to that point, there’s the risk of rising negative sentiment within a community over the course of time.

The following strategies could be applied to solve the problems listed above. One possibility lies in the recruitment of opinion leaders within the community. These opinion leaders could be educated through targeted sponsoring to become community-experts. Their incentives could take the form of either monetary or non-monetary, with bestowed social recognition within the community for example as a non-monetary incentive. This can be achieved with a specific reference in the user profile or the signature of the opinion leaders. Another possibility is to deploy experts within the community that come from the company itself. Both strategies lead to a higher specificity of the information exchanged as well as better control over interaction among the users.

There are three sectors resulting from the advantages and disadvantages of the different types of interactions mentioned above:

- Sector A represents the best-case scenario for community management. This is for two reasons. First, there are low operation costs of the virtual community. Second, the specificity of the information exchanged, and hence the benefit for the firm, are both high.
In sector B different advantages and disadvantages dominate depending on the various configurations of permitted interactions (user-user, user-expert-user, user-experts). From an economic point of view, a combination of the various interaction possibilities provides an optimal ratio of the mentioned pros and cons.

Sector C represents the worst-case scenario for community management. First, there are high costs of operating the community. Furthermore, the user-generated content within the virtual community possesses a low specificity. Thus, the company can barely draw any benefit, because little or no information is exchanged regarding the product, brand or purchasing decisions.

To summarise, the targeted use of different interaction possibilities between users and experts promises significant potential for the successful development and management of virtual communities.

7 Discussion and conclusions

The primary objective of this paper was to investigate the impact of interpersonal interaction within a virtual community in terms of key constructs of consumer behaviour. For this purpose a virtual community of a fictional manufacturer of mobile devices was created. This made it possible to measure potential effects without the risk of methodical bias, although we do caution that our manipulated form of membership does not instil the same intrinsic motivations as when membership in a virtual community otherwise forms. The results of our first experimental study reveal that interpersonal interaction within virtual communities leads to increased trust, purchase intention, word of mouth communication, and perceived information content of the virtual community. These results extend prior work on virtual communities (Czaplewski and Gruen, 2004) by offering greater understanding of the role interaction plays. The experiment also clarifies the formation of trust by highlighting interaction effect, as distinct from the more basic measure of time spent on a website (Ellonen et al., 2010).

In a second study we tested if there are differences between the impact of interaction with regard to several types of actors (users and experts). The results show a more positive evaluation by participants of the interaction with experts in comparison to interaction with users, again extending work on role company’s must play in managing virtual communities (Huang et al., 2005). Thus, companies can exploit the commercial potential of their virtual community by providing the chance to interact with company-controlled product experts.

A point for future research is the investigation of the link between specific personality traits and the effects of interactivity. The NEO Five-Factor Inventory of personality research could possibly serve as basis for modelling of the phenomenon. In addition, other depended variables, such as willingness to pay a price premium or customer loyalty warrant investigation. Researchers might also challenge the validity of our results in further product categories (e.g., automotive or FMCG). Finally, as increased research on virtual communities emerges, development of an overarching model relating key constructs would provide value to the field. Such a validated model would not only clarify our current understanding, but also offer a launching point from which to explore moderators and mediators of interest.
References


