41 VIRTUAL CUSTOMER COMMUNITIES: AN INNOVATIVE CASE FROM THE MEDIA INDUSTRY

Miia Kosonen and Hanna-Kaisa Ellonen

Lappeenranta University of Technology, School of Business, FINLAND
miia.kosonen@lut.fi, hanna-kaisa.ellonen@lut.fi

Online communication technologies enhance the ability of firms to engage in on-going dialogue with their customers and leverage valuable knowledge. However, there is little formal research on virtual customer communities. The aim of this paper is to offer new insights of the different customer roles and business benefits of virtual customer community-based collaboration in product development. We present a case study from the media industry, and demonstrate how the roles and interactions have been integrated into a novel form of a virtual customer community, supporting continuous product development with a large base of paying customers.

1   INTRODUCTION

Several authors have noted how online communication technologies enhance the ability of firms to engage in on-going dialogue with their customers, and thus leverage valuable knowledge (Sawhney and Prandelli, 2000; Nambisan, 2002; Füller et al., 2006; Chan and Lee, 2004). Customer participation may take many forms, ranging from using especially designed customer toolkits (Dahan and Hauser, 2002) to voluntary participation in online customer communities (Franz and Wolkinger, 2003). In general, virtual communities are *groups of people who use communication technologies for repeated social interaction to meet certain needs* (cf. Preece, 2000). An increasing number of these communities are sponsored by commercial organizations (Porter, 2004). Yet, there is little formal research on virtual customer communities and how they may benefit businesses.

Researchers (e.g. Nambisan, 2002; Thompke and von Hippel, 2002; Dahan and Hauser, 2002; Jeppesen and Molin, 2004; Fuller et al., 2006; Sawhney et al., 2005) argue that customer participation in both the front end (idea generation, concept) and the back end (design and testing) phases of new product development enhances innovation and thus creates more value. We note, however, that customer interactions have mainly been investigated from the new product development (NPD) viewpoint, where customers have eventually played a limited and mostly passive role (Nambisan, 2002). We argue that current research fails to acknowledge the potential of customer collaboration to support *continuous* (existing) product development and *on-going* interactions.

In our understanding, the value of virtual customer communities (VCC's) is truly revealed with *continuous creation products,* such as most media products (cf. Picard, 2005), that involve the continuous creativity and improvement every day or week. For these products, it is impossible – both for the time and cost associated – to

use traditional customer research methods, such as focus groups and surveys, every time a new issue is planned. Prior literature implies that virtual customer communities have the possibility of creating value in the media context, e.g. within the newspaper industry (Boczkowski, 2004) and the magazine publishing industry, by enabling firms to perceive weak signals from the audience and fulfill the needs of customer when improving the service (Ellonen and Kuivalainen, 2006). However, current research still lacks examples and systematic approaches on how to integrate virtual customer communities into the product development.

The aim of this paper is to offer new insights of the different customer roles and business benefits of virtual customer community-based collaboration in product development. We present a case study from the media industry, and demonstrate how the product development and customer interactions have been integrated into a novel form of a virtual customer community.

The rest of the paper is structured as follows: We start by presenting literature on virtual customer communities. Thereafter, we describe our research design and methodology. In the empirical part of the paper, we start by presenting our case – the dieting community – and then describe and analyze the ways in which customer interactions support the product development. We conclude with a discussion of the lessons learned and relate our findings to the theory.

2   VIRTUAL CUSTOMER COMMUNITIES

The market has become more open for public criticism, and consumers have taken the role of competitors in creating value (Prahalad and Ramaswahy, 2000; Chan and Lee, 2004). Foray (2004) suggests collaboration among users and doers as one outstanding model of innovation. Collaboration takes two particular forms: firstly, businesses create organizational systems through which users are able to make adjustments and develop the product, and secondly, user cooperatives can be organized as sector-defined communities where users voluntarily interact, develop product and freely share their ideas. These novel forms of social communities, often referred to as virtual communities, support customer-based value creation and provide a way to interact, learn, conduct transactions, and share knowledge.

Virtual community relationships vary in depth and nature. For instance, open source (OS) software development is rooted in loosely coupled communities kept together by common values and norms. At the other end of the continuum there are tightly knit groups of people sharing personal experiences and affections and also developing interpersonal relationships, such as in patient support communities. In any case, communities are rooted in social relationships. Thus interactions must be considered based on the sociological perspectives on knowledge and value creation (Nambisan, 2002), and not focusing solely into the supportive communication systems and technologies. It is particularly important to make user status transparent, which may strengthen collective invention and trust building (Prahalad and Ramaswamy, 2000). Trust is considered both as an antecedent for virtual community participation, and as a dynamic process which maintains sense of community among members (Ellonen et al., 2007).

According to Füller et al. (2006), virtual interest groups typically possess high levels of knowledge about a specific domain. Virtual customer communities can benefit firms, as their members show high product interest and typically high presence on the Web. Online discussions represent a source of feedback on a

continuous and natural basis, also with drastically lower costs than in offline environments. Interaction can take place on two levels: one between the firm and its customers, and the other among customers who help and support each other. Virtual communities have been applied by companies for various purposes, such as building brands (McWilliam, 2000), collecting feedback from customers (Williams and Cothrel, 2000), supporting product use (Moon and Sproull, 2001), and enhancing quality management (Finch, 1999).

In particular, VCCs enable firms to establish distributed product development and modification through various customer roles. Firstly, customer can be involved as *buyers* of the product. Secondly*, as *users*, customers may contribute into product testing, and provide product support to peer users. Thirdly, customers can be seen as valuable *resources* providing information to companies and supporting innovation processes. Finally, customers may take the role of *co-creators*, contributing into the design and development of new products. (Nambisan, 2002)

In the media context, communities have primarily seen as a cost effective way to update website content, thus giving customers a voice and an opportunity to express themselves. Nevertheless, current research fails to address the question how the media companies can *hear* the voice of customers and build on customer interactions in order to adopt to the changing environment, and make changes and modifications. This is the purpose of our case study. We now present our methodology and case study from the media industry.

3   CASE STUDY

Nambisan (2002) suggested that detailed case studies of virtual customer communities could be conducted to collect rich descriptive data on the design and evolution on these communities in different product development contexts. Given the scant number of prior studies on the subject and our goal to gain new insights on the subject, we chose to conduct a single case study. According to Yin (2003), the objective of a case study is to understand a phenomenon in its natural context. Eriksson and Koistinen (2005) emphasize the importance of describing and understanding the context, as it makes the case understandable and partly explains it. In particular, our research goals are linked to Dyer and Wilkins (1991) who consider "good stories" to be the ultimate result of case studies: good stories may make us see new theoretical relationships and question old ones.

Our data-collection methods were a theme interview and observation. Theme interviews involve the implementation of a number of predetermined questions and special topics, but allow the interviewers freedom to digress (Berg, 2004) and latitude in terms of how the questions are asked and in what order (Shank, 2006). The interview themes covered the implementation history, community functionality and the related innovations, incorporating users into the development work, building sense of community, and connections to other media products. The interview was conducted face-to-face in November 2006, and it lasted for 45 minutes. The interviewee has been a central actor in both planning and implementing the community as the community producer. The interview was audiotaped with the participant's consent and transcribed in full.

In addition, following the suggestion by Kendall (1999) to include observation as a method when studying online communities, the community was observed for a six week period to explore the discussion forums and evaluate the functionality of the

site in general. A field diary was kept on the observations and messages collected from the discussion forums. This totaled a textual dataset of nearly 70 pages. The collected data was then analyzed thematically (cf. Auerbach and Silverstein, 2003). The unit of analysis in this case study is the product.

In order to increase the validity (cf. Yin, 1989), three tactics were used: using multiple sources of evidence, establishing a chain of evidence with the coding, and having the key informant review the research report drafts. Having presented our methodology, we now proceed to describe our case.

3.1   Case description

The case study concerns a novel form of a virtual community within the media context. The community is targeted at customers willing to lose weight, and it was launched in Spring 2006. During the first half year of its existence, the community had attracted over 20,000 unique visitors. There are over 10 discussion boards, covering topics such as food, exercise, physical looks, success stories, and feedback to the hosting team.

From a social viewpoint, a dieting peer group is not a new phenomenon, but large-scale weight-watching virtual communities applying usage fees have only recently emerged in Finland. Two different community sites hosted by rival media companies were launched almost simultaneously. Companies thus were able to identify an emerging customer need to be fulfilled. Therefore, our case community could be considered an innovation in itself. We see both the software product and the social community as integral parts of the case product concept, and in this paper we use the term "product development" to cover the development of the whole concept the customers pay for.

3.2   Community functionality and support services

The dieting community guides the member to enhance the quality of his of her diet instead of focusing on the amount of calories. Technically, the community employs a novel piece of software to help customers in achieving their personal goals. In practice, it simplifies the customer's daily input about his or her diet and physical exercise so that users do not have to understand nutrition-specific details. Instead, it gives guidance simply in the form of color code –based "quality marks", functionally resembling the logic of traffic lights: green light signals that all values are in balance, while red and orange lights point out where the user has to repair his or her nutrition or amount of exercise. Guidance on how to repair them is then provided. The program also learns about an individual member by employing a recommendation system where users may rate the provided dishes to get further recommendations and tips for their daily use.

In addition to the program functionality, members are supported by community staff (company internal) and a group of external experts who participate in interesting discussions and write articles about the related topics. They also have an important role in motivating and encouraging members through personal letters.

Customers pay participation fees for using the weight management program, excluding the one week test period that is free. The program is has been developed and modified throughout the process. It is used in a context of a social community, where customers interact and support each other in their weight-losing efforts by conducting discussions through web-based discussion boards, and also engage in message exchange with the community staff and experts. These interactions are

closely conjoined; discussions are initiated and maintained equally by customers, experts and staff team. In the following, we will discuss the different forms of customer interactions utilized in the product development of the dieting community.

3.3 Community in product development

The development of the original software product was done in close collaboration with external partners, namely, subcontractors responsible for coding and layout of the site. Customer were involved only after launching the service, yet their feedback proved valuable for modifying and improving the site functionality in particular.

All customer feedback was openly available in the early phases of the implementation, and provided valuable insights for developing the community and adding new features, such as own topics for senior users and members' personal diaries. The feedback also helped in pinpointing the related technical problems without additional workload:

"In the beginning, we had technical problems, but now it is more like general development... As all user feedback was openly there, we did not receive masses of complaints about the same problem, and we could work and 'close the case' out."

At present, members may provide feedback either by using the specific form or share their ideas freely in any of the discussion forums. Since the community has grown larger and the amount of discussion threads has increased in line with the member base, most frequently asked questions are then organized into a separate topic with the community staff's responses.

Based on our data, it seems that hosting a community in the early stages of its life cycle allows more freedom in doing slight modifications. In particular, new communicative features and tools can be easily incorporated into the site. Following the metaphor of the community producer, the development work is like building a house that will never become ready. Thus it is particularly important to engage in collaboration with customers.

"The focal player is the community. We promote members' feelings of belonging by hearing their stories and reacting to their ideas. The more influence, the more commitment."

Using Nambisan's (2002) classification of customer roles, we note that in this case, customers are involved in all four roles. Firstly, they only become members of the community as *a buyer*, since they pay a monthly fee for using the service. Secondly, as *users,* customers use the software and help each other e.g. in technical issues. Thirdly, customers are seen as an important *resource* that supply information and, accordingly, support continuous innovation. This type of activity not only takes place when prompted by the community staff, but customers take an active role in providing feedback. The staff also "rewards" active participants, thus acknowledging their role in the community.

"It does not have to be any major thing but small baits. The quality of the service is improved gradually, due to the community, as well. --- One of these baits is that some members become 'messengers'. They are mentioned in community newsletters and thus become testimonials for the product: this is something that truly works."

We also argue that customers play to role of *co-creators*. In our view, this involves a more intense customer-firm relationship than the three earlier mentioned roles. They contribute by reading and submitting messages to the forums and thus make the community more valuable and inviting. While customers do not have a direct access to the software, they initiate or participate in designing and developing new features and customized services that create more value. Examples of the

personal diaries and senior discussion forums were described above. Rather than being co-creators of the software, we see the customers as co-creators of the social community and the whole business model.

Thus, we conclude that customer interactions have enabled the continuous development and improvement of this particular product, both in terms of *software functionality* and *social actions* serving as a "continuous test laboratory". We will now discuss the lessons learnt from this case.

3.4   Discussion

There are three specific attributes in the case community that we would like to emphasize: Firstly, customer interactions have played a focal part in the *continuous product development*. For instance, new topics of interest have been added based on customers' feedback. In our view, one of the salient strengths of the community has been the hosting team's openness and the ability to react quickly, which has given them credibility in the eyes of customers and has allowed incorporating them into the development work. This, in turn, increases efficiency from the firm side e.g. by removing overlapping feedback, and gives customers more opportunities and self-esteem (cf. Nambisan, 2002). From the company's perspective, the community has also the potential to support the product development of other media products of the company. For instance, there has been a growing interest to transfer personal success stories from the community into print media products.

Secondly, the product development of the community relies on interactions *with paying customers*, not just a purposefully collected research sample of them, which is the case in most priorly described examples (cf. Jeppesen and Molin, 2004; Füller et al., 2006). Also, Franz and Wolkinger (2003) have observed that the introduction of membership fees in virtual communities often fails. They speculated that users would not be willing to pay a fee for "nice chat". Our case demonstrates that it is possible to have a commercial, user-fee funded virtual community. Yet, we agree with Franz and Wolkinger that in order to succeed in this endeavor, the community should offer something the customers truly need and value, as our case community clearly does.

We note that product development with paying customers naturally also involves risks for the customers and for the company. On the customer side, it seems that openness in community development, fair practices, and strong personal intention have built trust among members (cf. Radin, 2006; Shankar et al., 2002) and willingness to carry the risk of paying usage fees beforehand. In our view, to build and maintain this type of trust requires true commitment from the community staff. From the trust building perspective the key issue is not to make every modification the customers ask for, but rather to communicate openly with the customers and show respect to their contribution and involvement. At best, this benefits the company, as committed customers spread information about the community through word-of-mouth (cf. Srinivasavan et al. 2002; Wang et al. 2006).

Thirdly, as described above, customers have *several roles* in the case community – those of buyer, user, resource and co-creator (cf. Nambisan, 2002). We propose that the empowerment of customers may help them to commit to the community and pay the usage-fee since their contribution is visibly noted and valued by the community organizer. Also, Cothrel and Williams (1999, 59) state that the informal roles of community members are a good indicator of the health of a community;

when members are willing to serve the community in various roles, it indicates that the community is something people value and want to be part of. In our view, one of strengths of the case community is the integration of customers in all these roles simultaneously. This mode of operation clearly supports both the continuous product development and customer commitment.

4   CONCLUSIONS

Virtual customer communities provide companies with new avenues to create value through customer relationships, by incorporating enthusiastic users that would be difficult to reach without the support of communication technologies. At the same time, communities may themselves become innovations when applied in novel ways.

In this paper, we examined virtual customer communities and the related customer roles based on a case study from the media context. We pointed out how the virtual community has potential to support *continuous product development* with a large base of *paying customers*, simultaneously in line with everyday participation and interactions. It may thus combine commercial purposes, novel forms of supporting software, and Internet-enabled social innovation. This mode of operation both supports continuous iteration of the product to match current customer needs and helps the customers to commit to the community since their contribution is noted and valued by the community organizer.

The main limitation of our study is that it is based on a single case. The case product is a combination of software and social community, and therefore it might be a special type of product in terms of its convertibility. Future studies should explore these issues with different types of products to generate more generic findings. Also, this study only focused on different types of customer roles and their associated business benefits as research variables. However, we hope that our efforts to underline the opportunities for continuous product development and capturing various customer roles simultaneously will provide avenues for more generic theorization and empirical research.

5   REFERENCES

1. Auerbach, Carl, Silverstein, Louise. Qualitative Data. An introduction to coding and analysis. New York: University Press, 2003.
2. Berg, Bruce. Qualitative Research Methods for Social Sciences. Boston: Pearson Education, 2004.
3. Boczkowski, Pablo. Digitizing the news – Innovation in online newspapers. Cambridge, MA: MIT Press, 2004.
4. Chan, T., Lee, J. "A comparative study of online user communities involvement in product innovation and development". A paper presented in the 13th International Conference on Management of Technology (IAMOT), Washington D.C., April 3-7, 2004. Retrieved December 15, 2006 from http://opensource.mit.edu/papers/chanlee.pdf
5. Cothrel, J., Williams, R. On-line communities: helping them form and grow. Journal of Knowledge Management, 1999; 3(1): 54-60.
6. Dahan, E., Hauser, J. The virtual customer. The Journal of Product Innovation Management, 2002; 19: 332-353.
7. Dyer, W., Wilkins, A. Better stories, not better constructs, to generate better theory: A rejoinder to Eisenhardt. Academy of Management Review, 1991; 16(3): 613-619.
8. Ellonen, HK, Kuivalainen, O. "The development of an online success story: A case from the magazine publishing industry." In Managing Information in the Digital Economy: Issues and Solutions, Khalid S. Soliman, ed. 2006, pp. 90-98. Proceedings of the 6th International Business

Information Management Association (IBIMA) Conference, 19-21 June 2006, Bonn, Germany.

9. Ellonen, HK., Kosonen, M., Henttonen, K. The development of a sense of virtual community. International Journal of Web Based Communities, 2007; 3(1): 114-130.

10. Eriksson, P., Koistinen, K. Monenlainen tapaustutkimus [Diverse Case Study]. Kuluttajatutkimuskeskuksen julkaisuja 4/2005 [National Consumer Research Centre, publications 4/2005], Helsinki, Finland.

11. Finch, B. Internet discussions as a source of consumer product customer involvement and quality information: an exploratory study. Journal of Operations Management, 1999; 17: 535-556.

12. Foray, D. "New models of innovation and the role of information technologies in the knowledge economy". In Transforming Enterprise. The Economic and Social Implications of Information Technology, W. Dutton, B. Kahin, R. O'Callaghan and A. Wyckoff, eds, pp. 113-130. Cambridge, MA: MIT Press, 2004.

13. Franz, R., Wolkinger, T. Customer Integration with Virtual Communities – Case study: The online community of the largest regional newspaper in Austria. Proceedings of the 36th Hawaii International Conference on System Sciences (HICSS'03), 2003. Retrieved February 12, 2007 from http://csdl2.computer.org/comp/proceedings/hicss/2003/1874/07/187470214c.pdf

14. Füller, J., Bartl, M., Ernst, H., Mühlbacher, H. Community based innovation: How to integrate members of virtual communities into new product development. Electronic Commerce Research, 2006; 6: 57-73.

15. Jeppesen, L., Molin, M.. Consumers as co-developers: Learning and innovation outside the firm. Technology Analysis and Strategic Management, 2003; 15(3): 363-383.

16. Kendall, L. "Recontextualizing 'cyberspace': methodological considerations for on-line research". In Doing Internet Research - Critical Issues and Methods for Examining the Net, Steve Jones, ed, pp. 57-74. California: Sage Publications, 1999.

17. McWilliam, G. Building stronger brands through online communities. Sloan Management Review, 2000; 41(3): 43-55.

18. Moon, J., Sproull, L. Turning love into money: How some firms may profit from voluntary electronic customer communities. In The e-business handbook, P. Lowry, J. Cherrington and R. Watson, eds. Boca Raton, FL: St. Lucie Press, 2001.

19. Nambisan, S. Designing virtual customer environments for new product development: toward a theory. Academy of Management Review, 2002; 27(3): 392-413.

20. Picard, RG. Unique characteristics and business dynamics of media products. Journal of Media Business Studies, 2005; 2(2): 61-69.

21. Porter, CE. A typology of virtual communities: A multi-disciplinary foundation for future research. Journal of Computer-Mediated Communication, 2004; 10(1).

22. Prahalad, C., Ramaswamy, V. Co-opting customer competence. Harvard Business Review, 2000; 78(1): 79-87.

23. Preece, Jenny. Online communities. Designing usability, supporting sociability. Chichester: Wiley, 2000.

24. Radin, P. 'To me, it's my life': Medical communication, trust, and activism in cyberspace. Social Science & Medicine, 2006; 62: 591-601.

25. Sawhney, M., Prandelli, E., Communities of creation. Managing distributed innovation in turbulent markets. California Management Review, 2000; 42(4): 24-54.

26. Sawhney, M., Verona, G., Prandelli, E. Collaborating to create: the Internet as a platform for customer engagement in product innovation. Journal of Interactive Marketing, 2005; 19(4): 4-17.

27. Shank, Gary. Qualitative Research. A personal skills approach. New Jersey: Pearson Education, Upper Saddle River, 2006.

28. Shankar, V., Urban, G., Sultan, F. Online trust: a stakeholder perspective, concepts, implications, and future directions. Journal of Strategic Information Systems, 2002; 11: 325-344.

29. Srinivasan, S., Anderson, R., Ponnavolu, K. Customer loyalty in e-commerce: an exploration of its antecedents and consequences. Journal of Retailing, 2002; 78: 41-50.

30. Thomke, S., von Hippel, E. Customers as innovators. A new way to create value. Harvard Business Review, April 2002; 74-81.

31. Wang, HC, Chia-Yi, MH, Pallister, J., Foxall, G. Innovativeness and involvement as determinants of website loyalty: II. Determinants of consumer loyalty in B2C e-commerce. Technovation, 2006, in press.

32. Williams, R., Cothrel, J. Four smart ways to run online communities. Sloan Management Review, 2000; 41(4): 81-91.

33. Yin, Robert. Case Study Research. Design and Methods. Thousand Oaks: Sage Publications, 1989.

34. Yin, Robert. Case Study Research. Design and Methods. 3rd edition. Thousand Oaks: Sage Publications, 2003.