

Consumer Needs and a Systematic Plan – The Reality of Social Media Discussion Forums

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Abstract: The purpose of this paper is to assess the possibility to use discussion forums with systematic consumer integration plan in incremental product innovation. The academic literature shows the value of sport addicts and hobbyists as innovators in product innovation; this is assessed and connected with the empirical results. This study is empirically based around qualitative material collected from 28 discussion forums related to heart rate monitors and one interview. Discussion forums can be a relevant source for incremental product innovation ideas if a clear and efficient strategy how to categorise information, participate and integrate consumers is made. In reality this is efficiently only possible in company's own discussion forums with systematic interaction and consumer integration to discover and then further develop the consumer ideas presented in the discussions. These results can be used as guidelines and as a way of connecting consumers and product innovation by a forward thinking business.

Keywords: Discussion forums, Consumer integration, Product innovation.

JEL Classifications: O31, O32, O33

1. Introduction

Certain themes in online product innovation have raised interest among researchers: consumer integration into product innovation process (Fuchs & Schreier, 2012; Lüthje et al., 2006; Dahan & Hauser, 2002), consumers' role (Lettl & Gemünden, 2005), crowdsourcing (Poetz & Schreier, 2012), creating interaction tools (Füller & Matzler, 2007), toolkits (Füller et al., 2006; 2009), online communities (Marchi et al., 2011; Jawecki et al., 2011; Füller et al., 2006; Pitta & Fowler, 2005; Füller, 2010; Füller & Matzler, 2007; Gebauer et al., 2012; Mc.Alexander et al., 2002) and virtual worlds (Kohler & Matzler, 2010; Chandra & Leenders, 2012; Ernst, 2004). The main findings in the previous research and the link to this study are presented in Table 1 on page 48.

In this study product innovation is understood as the development of a new product (Trott, 2005) and it is seen as a result from improvements that are made to existing products (Ulwick, 2005). This study concentrates only on incremental product innovation, that can mean continuous improvements or minor changes in attributes in the consumers' perspective (Hoonsopon & Tuenrom, 2009; Schilling, 2008) and might not be particularly new or exceptional, but still offer a competitive advantage as they in some specific way answer to consumer needs better than other or earlier products. For this reason, defining consumer needs is crucial, and here discussion forums can be an extremely valuable tool. It is remarkably easier to use social media discussion forums for incremental product innovation than for developing totally new products: As most of the discussions are typically short and the theme of the discussion changes relatively often, it would be a challenge to develop totally new products in discussion forums. Still, they offer a constant flow of

ideas for minor improvements and insights into consumers' minds and level of satisfaction and complaints.

Table 1 Points of previous research and this study

| Previous literature | This study |
|--|---|
| (1) Online co-creation communities can be employed for idea generation (Pitta & Fowler, 2005; Füller & Matzler, 2007; Jawecki et al., 2009; Füller, 2010; Gebauer et al., 2012). | (1) Do online communities not aimed at innovation or maintained by companies contain product innovation ideas and consumers eager to participate? |
| (2) Company maintained online methods such as creating interaction tools (Füller & Matzler, 3007) and toolkits (Füller et al., 2006; 2009) have been successful experiments. | (2) Can online communities be utilized in product innovation without any company intervention? If yes, how? |
| (3) Sports enthusiasts and lead users are the most desired innovators (Jeppesen & Frederiksen, 2006; Lettl & Gemünden, 2007; von Hippel & Katz, 2002). | (3) Are sports enthusiasts and lead users the best innovators and what is their role in discussions in online communities open for anyone? |

The consumer integration literature is primarily based on the company perspective, the company being the initiator that involves consumers in ready-tailored platforms or idea competitions (Franke & Piller, 2004; Füller et al., 2009). As an exception, Hienerth & Lettl (2011) studied consumers creating innovations without any company intervention and asking the companies to become involved only at a very late stage in the product innovation process. Both of these methods involve company and consumer intervention; thus, there is a need for observation by the company to source relevant product innovation ideas. This assumption is further supported by Piller et al. (2006) who show the effectiveness of non-company mediated consumer-to-consumer interaction in their study. Consequently, the study's research problem is: How consumers should be integrated into idea generation for the company to find out unmet consumer needs?

2. Consumer integration into social media product innovation

Among product innovation researchers understanding and meeting consumer needs is regarded as a crucial success factor and a strong competitive advantage (e.g. von Hippel, 2001; von Hippel & Katz, 2002; Zirger & Maidique, 1990; Cooper, 1994; Day et al., 1979; Hoffman, 2007; Cooper & Kleinschmidt, 1986; Hauser et al., 2006): more specifically a key to success in product innovation is the ability to find out and understand the concrete needs and preferences of the consumers (Urban & Hauser, 1993), to find out their possible technical problems and solutions suggestions (Dahlander et al., 2008) and to identify future consumer needs for minor improvements (De Valck, 2005). Accurate and detailed information on consumers' needs and the context of a product use (von Hippel, 2001) are essential in product innovation as well as knowledge about former experiences, expectations on how a product will be used (Rohracher, 2005) and its place on the market (Heiskanen & Lovio, 2007). Here discussion forums definitely offer an relative alternative: they are cheap, fast, easy to manage and offer a wider range of audience. There are some challenges, though. The extensive amount of unorganized information poses a severe problem, as it is not clear, how to get the most of discussions, without wasting a lot of time in searching (Mustonen, 2009).

Consumer integration has played a central role in all phases of the innovation process from the idea generation to the market launch of new products (Lüthje et al., 2006): New products should provide significant value to the consumers (Zirger & Maidique, 1990) and therefore it is often recommended that consumers should be included in the product innovation process to ensure that the consumers get what they want (Mantel and Meredith, 1986) and the new product will fit the market: Consumer integration could influence not only design and diffusion, but also new purchasing and consumption practices (Ornetzeder & Rohrer, 2003). Companies have started to understand the importance of consumers as a source of learning, innovations and product improvements (Rohrer, 2005) and realized that direct communication with consumers allows them to tailor products to their requirements (Dahan & Hauser, 2001).

At the beginning of the product innovation process user innovativeness is especially important (Hirschman, 1980): The yet undefined consumer needs will be changed into product solutions (Lüthje et al., 2006) as producers integrate consumers in the idea generation process to create ideas for products with high market- and business potential (von Hippel & Sonnack, 1999; Kristensson et al., 2004; Lüthje et al., 2006). Jeppesen (2005) emphasizes the importance of a dialogue in which the solution to the consumers' problem is developed. Especially experienced users can give impulses to so called breakthrough products and thus in practice it may often be the consumer who finds a solution to a certain problem (Jeppesen, 2005). At the beginning stage of the product innovation process it is important also to take part in the product innovation process even if the person in question would not be knowledgeable or experienced enough to create ideas (Kim, 2000).

As Prahalad & Ramaswamy (2004) point out, it should also be considered that the social media dialogue is conversation between two equal partners, and cannot, thus, be company-controlled. From the positive point of view, participating in discussions helps to connect with consumers at a remarkably deep level and gain valuable information into consumer satisfaction and needs (Volmer & Precourt, 2008) as well as knowledgeable solutions to problems once the company has gained the trust of the consumers (Scott, 2007). Consumers have different reasons for their participation in communities, such as desire for interaction, necessity to solve a certain problem or need to be socially active. By listening to the consumers, companies can find out what consumers would like to hear or talk about, and what the consumers would find interesting, enjoyable or valuable (Kaplan & Haenlein, 2009). However, overly professional content offerings should be avoided, as they might have a paralyzing or even negative effect on the conversation. Astute companies devote considerable resources to listening to the conversations, although typically consumers are not able to define clearly the desired product benefits (Pitta & Fowler, 2005).

To succeed in the consumer integration, companies need clear methods and strategies, how to involve their consumers (Kim, 2000): Which consumers should be integrated into the product innovation process, what contents should be regarded as the most relevant in the process, what methods should be used, how relevant to consumers information will be further forwarded to professionals that have no direct contact to consumers (Lettl & Gemünden, 2005).

3. Methodology

To tackle the complex, multifaceted and longitudinal phenomenon at hand, a qualitative approach was chosen. The academic literature (e.g. Lüthje, 2000; Jawecki et al., 2009; Jeppesen, 2005; Lüthje et al., 2006; Füller et al., 2007) shows the importance of sports enthusiasts and hobbyists in product innovation. The findings of this study support this: The most popular discussion forum in Finland (www.suomi24.fi) was read through and sports were the most discussed topic there with Suunto (Suunto is a company specialising in design and innovation for sports watches, dive computers and instruments used by adventure seekers) heart-rate monitors

causing the most discussions. Additionally, five sports related discussion forums (www.fillarifoorumi.fi, www.kiloklubi.fi, www.lenkivihko.fi, www.nojatuolifoorumi.fi, www.potku.net) were read through and compared to Suunto's own forums as the aim was to compare general and company maintained discussion forums. In total, discussions of 28 forums (in total 2,187 discussions) have been read through, copied to Word and categorised in Excel by the content analysis method. To be able to analyse the differences and similarities in the discussions, only one product, heart-rate monitors (and other equipment related to their use) was studied in this paper.

Most of the discussions were very short (72% consisting of maximum four comments). It is unlikely that these discussions could be used to get new ideas for product innovation, as the thoughts and ideas are not developed and discussed long enough. To find out more detailed information, the 20 longest discussions, of which 10 were from general discussion forums and 10 from Suunto's, were chosen for deeper analysis. As the level of the discussions and expertise seemed to be much higher in Suunto's discussions, it was assumed that company's own discussion forums could offer more value for the company in relation to product innovation. Therefore these discussions were compared with the discussions in general discussion forums. These discussions were exported to NVivo-programme and categorized for further analysis.

In this study, discussion forums were observed from outside. The discussions were mostly ended, and therefore it was impossible to comment or ask questions in the forums. To gain better understanding from the company perspective, a Suunto specialist was interviewed at an early stage of the analysis process. Later on, it was decided that another interview would improve the understanding, and both the specialist and a trainer, employed by the company to participate in the forums, were interviewed.

4. Results

The themes of the discussions were at first categorized roughly in Excel. From the total of 2,187 discussions the most discussions in all forums (72%) were related to technical problems and advice. People not only state questions when they need help, but also use discussion forums as a source of information, in which to look for advice to same problems that someone else has already stated. The other popular topics were efficient training and training results (19%) and buying behavior support (12%). The discussions in all forums consisted mostly of comments, although most of them were started with a concrete question (70%).

Although all the forums share these characteristics, in comparison to Suunto's discussions, the depth of commentary in general forums is lower and the discussions are generally short. Although the number of comments might be large, in fact, several simultaneous discussions are being conducted and the original topic is obscured. Typically, the problem is stated as "what kind of a monitor should I buy?" and a couple of answers follow; in some cases, perhaps dozens of answers. However, the ensuing discussion typically comprises a couple of basic comments without detailed information that were quickly followed by another question: "I'm also buying a monitor, would xx be good?" This tendency, first to discuss without details, second, to base comments solely on opinions and, third, to disrupt the discussion with yet another question or comment not directly related to the stated problem is typical throughout general discussion forums. In addition, the opinions and comments are typically more abstract than in Suunto's discussions and it is more difficult to see, how exactly the product should be improved. Comments, such as "there are some disturbances with the HRMs" or "the measurements are not accurate" are typical. The problem is stated, but in comparison to Suunto's discussions, there are never attached Excel-tables with calculations and measurements from training sessions and questions, how to correct the inaccuracies or answer with links to a solution someone has calculated for that question.

The longest discussions in Suunto's forums concern technical advice and efficient training, usually to achieve some higher goals such as taking part in a marathon or triathlon competition. The comments are often complemented by charts showing the development of training results, calculations showing inaccuracies in training and also figures relating to overall achievements with questions on how to reach the next level in training or to avoid "unnecessary recovery days recommended by the monitor". The excessive amount of information had also been noticed in Suunto, where the professionals had tried to utilise the forums for sourcing ideas. It had been realised, however, that to find or even read the discussions was extremely time-consuming and inefficient and, thus, it was a task only performed occasionally. It was also pointed out that breakthrough ideas usually come from inside the company, whereas consumers only put forward some minor thoughts. Utilising general discussion forums, open to anyone on the Internet, to find product innovation ideas was also under consideration.

Previously, Suunto had employed a trainer to answer training-related questions, but it was later considered an unnecessary cost and he was replaced by company representatives. It can be noticed from the discussions, however, that the trainer is treated with the utmost respect and thanked for his advice and help, whereas the Suunto representatives mainly face annoyance and criticism. Especially, the inability to get answers with concrete details and without delay causes dissatisfaction and also an attitude that the company does not respect the participants and underestimates their expertise in product innovation. Although the Suunto moderator answers politely and in detail, his answers are not received well. For example, to his answer for a new product software solution, "so far, limited resources have been allocated to our product", the following comments are written: "I think that you can read that as no chance" and "sad that Suunto is so stubborn". At times, it seems to greatly annoy the participants that the moderator does not answer; comments become overly negative, even hostile: "we want Suunto to listen, but they are too busy" and "they don't have time, they are in Chamonix relaxing".

It was clear that the trainer had a special role and was appreciated. He either commented and offered unprompted help or he was asked for help directly. As the attitude to a trainer is so positive, this approach might very well be developed with a social media evangelist, presented originally in social media marketing by Dwyer (2007) to ensure the positive effect of word-of-mouth in an online community and other networks. The role of social media evangelist in discussion forum product innovation would be to maintain a positive atmosphere and to keep the discussion interesting which enables the participants to come back to answer challenging questions.

Whether an outsourced specialist alone can take responsibility for consumer integration in social media discussion forums is, however, questionable. In any event, a successful strategy requires a detailed plan concerning how and when to participate. First, even if originally directed at only one participant, a "wrong" or otherwise unsatisfactory answer will be posted for thousands of readers to see ("why isn't Suunto reacting, more than 6000 viewers here...?"). Second, the discussions need in some form to be directed at deeper and more detailed product innovation ideas.

Both the Suunto representative and their employed trainer agreed that the company needs to find the correct target groups; in this case, to select the most eager innovators in the discussions and integrate them into the process. Considering the speed and extensive amount of unnecessary information, a structural approach is needed to, first, find and, second, enable utilisation and further development of important information in the discussions. The discussions contain a remarkable amount of potential product improvement ideas that, at this stage, are only rudimentary and possibly only mentioned by an interested sports enthusiast, or to some extent even extremists, as pointed out by the employed trainer.

The Suunto representative argued that although the company collects feedback and ideas through various channels, including discussion forums, these ideas are typically already known by the company or too complicated to implement. However, the process is regarded as beneficial, not for finding new ideas but with helping to define what to prioritise. In addition, he pointed out that discussion forums can help companies to understand what additional value consumers want in their products or services and, thus, develop methods by which consumers can participate in product development, marketing or distribution.

5. Conclusions

5.1 Theoretical contribution

Virtual product innovation has certainly raised interest among researchers, engendering different experiments. Online communities have been studied by Pitta & Fowler (2005), Füller & Matzler (2007), Jawecki et al. (2009), Füller (2010), Gebauer et al. (2012), thus forming the closest link to this study. In these studies, however, the communities were co-creation communities with chosen participants and the forums were designated purely for that purpose. These idea generation communities have been established and are maintained solely for that purpose. In this study, forums open to anyone on the Internet were studied.

This complements previous researches conducted in relation to online product innovation as, in those, consumer integration was based on active company participation by, for example, online innovative communities (Füller, 2010; Füller & Matzler, 2007; Gebauer et al., 2012; Jawecki et al., 2009). Many previous studies state the need to find and concentrate on the most innovative consumers (e.g. Lettl & Gemünden, 2005; Lüthje & Herstatt, 2004). As innovation does not occur in isolation, but in interaction with all other participants (cf. Hienerth & Lettl, 2011), this study concentrates on all forum participants and thus adds understanding to the previous studies. Furthermore, it also provides more information on how to manage consumer and company interaction in forums, which was a clearly stated need for further research in a previous study (i.e. Snow et al., 2012).

This study supports the findings of previous research by showing that discussion forums contain both product innovation ideas and consumers eager to participate (e.g. Pitta & Fowler, 2005; Jawecki et al., 2009). Although the communities examined in this study were not aimed at innovation, but for information sharing and conversation, this characteristic still existed. By only observing the discussions, even occasionally, companies most likely miss many promising ideas, with those that are found simply being very “raw” mentioned wishes without further comments or clarifications. The crucial aim is to find the correct consumers, those who form the appropriate target group. It is, indeed, easy to distinguish the most active and innovative-minded consumers in the discussion, those with passion to innovate who are eager to share their experiences to develop improved products. These, in this case sports enthusiasts, also termed lead users in the literature, are usually willing to share their expertise and help others and also to contribute to the discussion; however, it needs to be decided whether these participants represent the correct target group in relation to each product. In some discussions their needs were very special, not related to the wishes of a “normal” consumer but to those of an extreme sportsperson. This in its turn supports the findings of previous studies relating to lead users (e.g. Jeppesen & Frederiksen, 2006; Lettl, 2007, von Hippel, 2007).

5.2 Practical implications

In this study, it was noted that consumers with the most ideas and constructive comments were those with the most knowledge and user experience relating to the product in question. They were also those who showed high motivation in getting the most out of their equipment. Furthermore, in case there were some functional problems or inadequacies, their main interest was aimed at solving the challenge, typically with a positive attitude. Often, they even complemented their postings with charts, figures and technical details and by offering solutions to others or even new creative ways to improve the situation. Based on the study, it can be concluded that ideas for incremental product improvements exist in discussion forums, even without active company intervention.

A practical implication of this study, from a company's perspective, is the finding that idea generation in discussion forums does not have to be overly difficult. Most likely in closed innovative forums, it is certainly possible, with a consumer integration plan and time investment, to find promising product innovation ideas and to integrate the best innovators. The key issues seem to be willingness to participate and also investing time and resources to efficient planning. Another alternative is to find product innovation evangelists to help consumers further develop promising ideas. In so doing, the evangelists need to be provided with tools and instructions on what to aim at and how to act.

There is an abundance of suitable participants in the discussions who are interested in the products in question and possess an extensive knowledge on them and their usage. With an open approach and invitation to product innovation forums, the problems of confidentiality and protection of interest are also solved.

5.3 Limitations and suggestions for further research

The study shows that a comparative study within another sphere is needed to expand the results from sports to other products. The newest technology, currently iPads and iPhones, is another theme that causes a lot of discussion on the Internet. Adding different types of product to the study would make it possible to determine whether they influence the level of interest and ideas mentioned and also change the process and nature of the discussions.

Discussion forums have not been overly studied in general and, thus, there are many aspects to address; for instance, how to maintain and direct discussions without damaging the process between individuals, how to participate in the discussion from a company perspective while, however, considering the required ethics (e.g. no false identities or false messages) and how to ensure confidentiality and trust.

It is proposed in this study that a closed innovative forum would be a more efficient potential source for product innovation ideas. The change from an open forum to a closed innovation community comprising selected participants will consequently also be of the utmost interest, as will a comparison between an open and closed forum within the same study.

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