The co-creation fairytale: What's behind it and how companies can benefit from it

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Abstract

When market research budgets are cut and customer insights become more important than ever at the same time, how can companies address their customers and successfully initiate user oriented product development? What methodological approaches have to be taken into consideration to deal with the ever changing consumption patterns and habits of users as well as with the technological change occurring at constantly increasing pace? And how can we achieve all this with less available funds and more corporate constraints? This paper gives answers to these questions and illustrates how research and development units can benefit from so-called co-creation approaches. In addition, our research regarding a remote control application for smartphones highlights the benefits and shortcomings of such an approach.

Keywords: consumer resistance, prosumer, co-creation

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Introduction – Less is more in times of turmoil

The global markets for Information and Communication Technologies (ICT) are constantly evolving and companies face the increasing challenge of developing competitive products and services, ideally with a global impact. Convergence has been the buzz word of the past years, highlighting the potential of the ICT industry to apply new business models to combined service offering for different devices. Infrastructure technologies like UMTS or HSDPA facilitate the mobile access to personal data and information; enable watching television channels on mobile handsets such as notebooks or smartphones[i] and make the cumbersome mobile transfer of large amounts of data a thing of the past. ICT companies therefore constantly have to re-invent themselves in order to remain global players. But the same holds for Mobile Network Operators (MNOs) such as Vodafone, Telefónica or Deutsche Telekom. As the leading telecommunications and service providers, these companies have to invest more into new technologies in order to be able to compete with companies such as Google or Apple, who increasingly and successfully attack their home domains with services such as Google Voice or their own portfolio of smartphones and operating systems, e.g. the Android G1 phone.

In addition, the global financial crisis of the last years influences company expenditures on product development, market research and advertisements. Money has become a scarce resource albeit successful innovation cannot exist without trial and error approaches to come up with new product concepts, prototypes and service ideas. Bridging the gap between the increased need to innovate and the corporate responsibility to invest money wisely, in-house market researchers have to consider new methodological approaches for gaining the valuable customer insights needed for new product development. Achieving more with less has been one of the most challenging tasks for researchers and engineers in recent years.

Theoretical framework – why and how to achieve more with less

Besides the above mentioned constraints another challenge has to be considered as well: Today's customers have become increasingly critical and do not just favour more quality, more service and more features for less money, but also run off to competitors more easily if their demands are not fully satisfied through a specific product. In this context the consumer gained an ever increasing importance throughout the development of innovations. Incorporating customers from the very beginning of the development process can lead to saving money in the long run by developing products closely to the market.

Traditionally, the relationship between consumers (or customers) and producers, in this context MNOs, can be described as symbiotic but contrary (Humphreys and Grayson, 2008, 4). Hence, MNOs represent companies that make and supply products for sales whereas the consumer is defined as the one who uses the product (ibid). This kind of relationship assumes that the consumer does not take an active role in the process of the development of new products – a process called "top-down approach" in innovation development (comp.: Dörflinger et al., 2008). Especially in view of the very competitive market of telecommunications this approach is insufficient and introducing a product to the market does not imply that the consumer will adopt it. In the worst case scenario the consumers will face the new product simply with rejection or so called consumer resistance. The latter is often

seen as "one of the major causes for market failure of innovations" (Ram and Sheth, 1989, 6). And especially technology driven companies tend to develop new products and innovations without taking the potential customer into consideration. The developed service might be well elaborated and useful – but it only incorporates the developers' presumptions of what the consumers might need. As a consequence and instead of adopting an innovation, the risk is high that the consumers simply reject the innovation, leading to market failure, loss of image, an increased churn rate, only to mention some consequences. Innovations always pose risks, e.g. they might disrupt already existing and appreciated routines and an actually satisfying status quo (Ram and Sheth, 1989, 6). They also might imply a high degree and effort of learning (Heiskanen et al., 2007, 490f) which some consumers are not willing to bring up. Involving customers at an early stage of the development process and thereby gaining insights on customers' routines, habits, needs and desires (customer orientation) represents one of the strongest success factors for innovation (Trommsdorf and Steinhoff, 2007).

In this context, the "prosumer" approach has gained in significance over the past couple of years, a concept first introduced by Alvin Toffler in 1980 (Toffler, 1980). The "prosumer" can be seen as a blend of producer and consumer (Bandulet and Morasch, 2003, 1) and is ascribed an active role in the development, creation and design of new products or innovations. Over the last 30 years "the position of the customer has successively changed from a passive recipient to an active co-designer in the creation of value" (Steinhoff 2010, 73). The consumer becomes a "prosumer", is given the power to actively participate in the development of innovations and hence being appreciated as an active part of the market and "participant in the economic game" (Hemetsberger, 2003, 3). Involving the consumer in the development process of innovations, in this context, offers the chance of gaining a deeper understanding of consumers' desires and needs (Belk et al., 2000, comp.: Hemtsberger, 2003, 4).

A research direction called "co-creation" (Dörflinger and Leihener, 2009) meets the concerns of the "prosumer" approach and accounts for the changed roles of consumers and producers. It aims at involving customers or potential customers at the earliest stage of product development, the ideation phase. We believe that this approach leads to a reduced risk of customer resistance and thereby market failure. As a consequence, companies such as MNOs could save money in the long run because innovations no longer are developed isolated from but together with the customer. With co-creation, companies do not only have the chance of getting first hand insights on needs and desires, but also add a "new dynamic to the producer/ customer relationship by engaging customers directly in the production or distribution of value" (Kambil et al., 1999, 38).

This paper will present a product development process of a smartphone application based on the "prosumer" approach and "co-creation" and critically discuss the different methodological steps taken. We will conclude with the main benefits and shortcomings of this approach and present exemplary findings.

The Workshop and its results

In order to illustrate the potential of the co-creation approach the following section will present the conception, execution and evaluation of a workshop conducted in the premises of the Creation Center at Deutsche Telekom Laboratories in Berlin.

The aim of this workshop was to gain insights on customers' desires, needs and expectations on adding remote control functionalities to a smartphone application. In order to assure that the application to be developed satisfies customers' needs the workshop was conducted prior to the actual product development process. The project itself aimed at developing a remote control application which allows controlling television set-top boxes via smartphones, making use of all modalities modern cell phones combine (motion sensor, speech recognition and touch screen). Expectations in and requirements for the workshop were aligned with the responsible project managers and technical experts during the whole conception process.

Six external participants were recruited on the basis that they had already taken part in an earlier study investigating a similar topic and were owners of smartphones. Given their profiles they can be described as so called lead users who, according to von Hippel (1999, 106ff), are highly qualified persons interested in the participation in and contribution to innovation projects. Their expertise may greatly enrich product development processes, especially if they work together with interdisciplinary experts from various fields (Herstatt et al. 2003, 61), in our case marketing, sociology, design, psychology, research and development, and engineering, all working at Deutsche Telekom. Through stimuli from these different fields of expertise consumers are enabled to fully release their creative potential.

One week before the workshop all external participants received a cultural probe in form of a diary. The concept of cultural probes was first used by a group of designers led by Bill Gaver (Gaver et al., 1999) and has been adopted by several other research fields since then. These probes usually consist of a "collection of evocative tasks meant to elicit inspirational responses from people – not comprehensive information about them, but fragmentary clues about their lives and thoughts" (W.W. Gaver et al., 2004, 1). In order to sensitize our respondents to the topic as a whole and to gain insights on usage patterns they were asked to document their mobile phone usage in everyday life.

The workshop itself was a combination of different market research elements and consisted of three constituents. In order to introduce the participants into the topic the first part of the workshop was designed in the style of a focus group. We presented an already existing application which allows to remotely manage recordings on a set-top box. Feedback was collected in a relatively open way and the participants shared their personal experiences with and feelings towards the application.

The second part of the workshop was based on the method of story telling and the external participants were asked to present a typical evening in front of the TV but had to imagine using their smartphone and all its modalities as a remote control. While one person was presenting, the other participants had to write down all important functionalities that were mentioned. These functionalities were then discussed by the whole group and collectively assigned to one or more modalities by which they should be controlled. For example, the participants stated that the functionality of switching to another program could be controlled either by touch or by voice control.

The third and major part of the workshop concentrated on the co-creation of the actual smartphone application and called for an active role of the external participants. The mixture of external lead users and internal specialists represented the ideal participant constellation for a co-creation workshop. Each user paired up with one of the internal experts. In a first step each team was asked to visualize their conceptions of what the smartphone application should look like. After that, the pairs had to decide how the app should be operated (i.e. by using voice control, touch screen, motion control, or a combination of all three). To do so, every

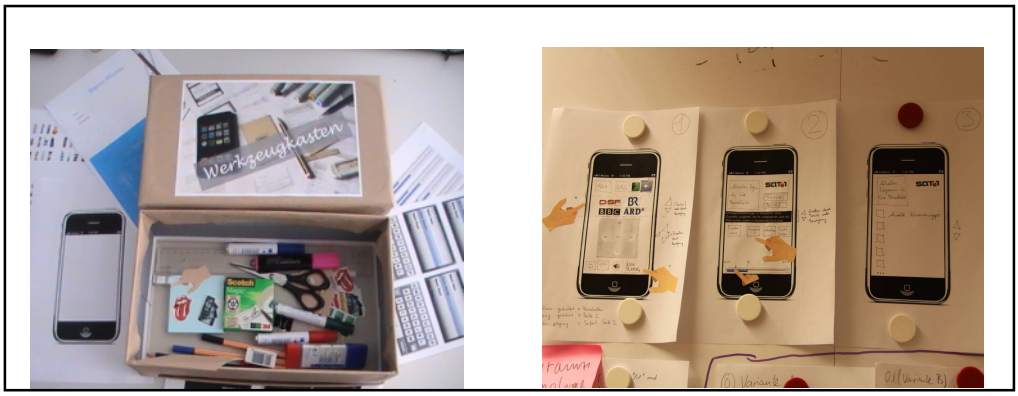
team received a developers toolbox mainly consisting of smartphone wireframes[ii] (comp. figure 1), and a wide selection of graphical user interface elements for smartphones. These served as a source of inspiration and were also used together with the handicraft material in the toolboxes. Throughout this part of the workshop, everything was permitted from cutting, gluing and drawing. The role of the internal specialists was to assist the external participants and to guide them in the right direction in case they were moving too far away from a technically feasible solution as well as to dig deeper into needs and desires concerning the application. This part of the workshop concluded with individual presentation of the results and a group discussion.

All material collected during the workshop was analysed with regards to needs and desires mentioned by the external participants which will need to be considered throughout the development process of the application. For example, during the storytelling part of the workshop the participants mentioned that they would not like to have to look at their smartphone when using it as a remote. Typically, they would not look at their remote while watching TV and they self-evidently presumed that the app will be designed accordingly. This presumption also reflected in the wireframes developed during the co-creation process.

The workshop allowed for in-depth knowledge in terms of needs, wishes and desires for a remote control app from the user's perspective. For example, we assumed that using a smartphone as a remote control might represent a break with existing routines and that the participants hold the opinion that a phone is only meant to be used as such. One of the major outcomes of this workshop was that this was simply a wrong assumption. The smartphone is a constant companion and always at hand. Consequently, using the smartphone as a remote control seems to be the next logical step and, at the same time, offers clear advantages compared to the "normal" remote control. For example, the participants stated that the additional screen of the smartphone could be used for more detailed information on the running program without having to interrupt it on the TV by entering menus or the videotext.

The main and most important result of the workshop are six valuable use cases which express the external participants' desires, needs, ideas, wishes and preferences of this kind of a smartphone application. The ultimate benefit was that each of them was directly developed by users and is therefore based on their desires, needs, ideas and wishes. These qualitative insights are indispensable parameters which must and will be constantly taken into consideration during the developing process in order to guarantee a successful market launch. The risks of "consumer resistance" and hence market failure or, in the worst case, a loss of image can therefore be reduced. Moreover, the engineers who will develop this application not only gained first hand insights of their customers' needs and requirements but also got to know the ones who will finally buy and use it personally; a step which meets the concerns of the "prosumer" approach and appreciates the new role of the consumer as an essential part in the development process of innovations.

From an organizational perspective, the chosen approach leads to cost savings on the one hand due to internal organization (respondent recruiting, moderation, evaluation) of the workshop and thereby achieving more with less. On the other hand, the risk of market failure can be decreased by incorporating the customer at this early stage of the development process.



Conclusion – benefits and shortcomings

In order to reduce the risk of market failure in an ever changing environment companies have to actively involve customers at an early stage of the product development process. This workshop showed that an effective mixture of different methodological approaches allows for gaining more qualitative user insights with less effort and also leads to cost savings due to internal organization and analysis. However, it has to be taken into account that the results of this workshop are not representative due to the very selective group of lead users and that the derived use cases might be biased due to the participation of the internal experts and their knowledge of what is possible. Moreover, these use cases have to undergo a technical feasibility check to assure a possible implementation. As fruitful as this combination of approaches may seem, there never is a guarantee for market success. In addition, this kind of workshop represents only one step and in the course of the development process further research will have to be conducted to assure that the customers' needs will be taken into consideration. What the customer needs and wants also has to be aligned ex-post to company and market requirements and in this context an acceptable trade off has to be found.

With this combination of different elements of market research approaches we were able to gain valuable different types of user insights. The cultural probes in form of diaries disclosed general usage patterns and routines with regards to smartphone usage. As mentioned above, users' routines always have to be taken into consideration during the development process to thereby overcome customer resistance. The story telling part gave us the opportunity to map those general habits on a more concrete topic and therefore provided more specialized insights on users' wishes and needs with regards to using a smartphone as remote control. The outcome of the co-creation part of this workshop was precise and tangible illustrations of the customer's needs and requirements.

From a methodological perspective it has to be stated that this approach does not imply universal validity – it was designed especially for the topic at hand and consciously assembled to best meet the projects requirements. Taking this approach also implies a solid examination of all different research methods available and a careful reconcilement and alignment of every single method in order to gain the insights needed. This process might not be suitable for every research interest. However, the idea of mixing and merging different kind of research approaches offers a fruitful solution especially for telecommunications companies to cope with ever changing conditions, e.g. changing consumption patterns, future technological trends and financial constraints.

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[i] At the time this research paper was written, no industry-standardized definition for smartphone existed. In general, smartphones are considered to be mobile phones with extended PC functionality, such as Internet access, data processing, multimedia capabilities that run on a specific operating system which allows the development of additional applications and services.

[ii] Wireframes are schematic representations of very early prototypes, usually referring to web sites. Within a wireframe all basic elements of a prototype and a conceptual layout are being designed. There is no need for a final design; within a wireframe graphical components are depicted rather rudimental. Wireframes are first of all about the concepts and not the design. (http://mcwiwa.de/index.php?article_id=12)