Uniting qualitative design research and quantitative market research: a case example of user-driven innovation in the Dutch health club industry

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Abstract

In the current market, the focus is more and more on building long-term relationships with clients in which value is created, communicated and delivered. This also means developing a new customer relationship focus that goes beyond the consumer orientation that has thus far dominated the practice of marketing. In a user-driven approach, the basis is no longer the product range, the world of the manufacturer or supplier, but rather the experience of the user. This has implications not only for manufacturers and service providers, but also for marketeers and market researchers. We feel that the most commonly used methods and techniques do not answer to the new demands of the market. We have therefore adapted emerging generative user research methods from the field of design as a basis for a truly user-driven market approach.

As part of the Fitness in Motion project -a programme aimed at helping the health club industry develop a stronger customer orientation- we applied Contextmapping, a generative technique that has already proved its worth in the world of industrial product development and interaction design. Contextmapping is a technique that is in harmony with the principles of a user-driven

marketing approach, allowing us to map the client's world of experience. Contextmapping is a fundamentally qualitative research technique: small-scale and generative in nature. In the Fitness in Motion project we combined Contextmapping with large-scale quantitative panel research, which in our study has proved to be of real added value in legitimizing and justifying the results from the Contextmapping study and the choices issuing from them.

This article discusses the need for new methods for arriving at a user-driven marketing approach. We demonstrate how we have transferred this to the health club industry in a study among n=5,000 customers of health clubs. We will discuss how the approach spurred new insights through multidisciplinary collaboration.

KEYWORDS: User-driven innovation, contextmapping, consumer panel, service innovation

Introduction

Modern society has become increasingly diverse and demanding, leading to a fragmentation of customer groups. The continued penetration of IT resources into society has led to an increase in media outlets (and therefore also communication and distribution channels), all the while giving consumers more and more control over how they spend their time interacting with these media. Technologies and services are also easy to replicate, so it has become increasingly difficult for companies to produce goods and services that are both relevant for consumers and that stand out from the crowd, i.e. the competition.

In reaction, business attention is shifting away from transactional relationships -the exchange of goods and services- towards value creation -building long-term relationships with customers, in which interaction with the customer is key. Companies nowadays pay attention to emotional (brand) value of their products and brands in addition to functional (product) value. Designers are increasingly invited into the strategic business arena, because they have developed a track record and portfolio of applying exploratory research methods and techniques to uncover hidden needs and desires, and they have the skills and processes to translate these into concepts for new products and services. Still, these designerly efforts often fail, because they do not always fit the customs and language of the marketing domain, which has been the leading discipline involved in business innovation.

As part of the 'Fitness in Motion' project, a programme aimed at helping the health club industry develop a stronger customer orientation, we combined Contextmapping (Sleeswijk Visser *et al.*, 2005) with more traditional panel research methods. Contextmapping is a design research method that makes use of generative techniques to organize user participation. The approach has already proved its worth in the world of industrial product development and interaction design. This article discusses how we adapted Contextmapping to suit the strategic business arena, by integrating results from small-scale in-depth generative user studies and large-scale panel

research. We present a case study for the health club industry in which we applied the method. Special attention was given to take the client along in the process of learning to understand the different kinds of customers.

Some perspectives on user-driven innovation

The user-driven approach is one in which the focus is no longer on a physical product or service, but squarely on the customer's perspective and experiences. In the Netherlands, Philips is one of the pioneers of this user-driven approach, and other companies and industries have started to follow.. For example, Philips Lighting has transformed itself in the past few years from a manufacturer and marketer of ordinary light bulbs to become a facilitator for 'ambience creation', a dramatic shift in focus from the world of Philips to the world of the consumer. This approach is no longer about how to sell products, but about meeting consumers' needs and responding to their problems. Lamps and lighting can be factors in this process, but additional products and services may also issue from these efforts. Interior design, for example, now has become a logical area for Philips Lighting to explore. Forging an experiential link with the customer, connecting with their feelings, dreams and ambitions, means that real emotional added value can be created.

Most marketing models and techniques tend to make the customer 'fit' the world of the company, instead of opening up and truly trying to understand the customer's world. The result is that we confine our research to the needs and desires of customers regarding a specific product or category, i.e. the domain in which our activities take place. Van Dinten calls this attitude an internal orientation (Van Dinten & Schouten, 2008)., In contrast, an external orientation refers to the way we receive meaning from others. According to Van Dinten, the internal orientation is dominant in our Western society. Societal trends like individualism and emancipation drive us to respond primarily from an internal orientation. Organizations are designed to survive and tend to perpetuate the image they have of themselves by using it to interpret the world around them.

Market research, whether qualitative or quantitative, has traditionally been a craft of asking questions. This is involves collecting answers from respondents from predefined questions, which are then analysed and interpreted. Asking questions, however, requires respondents to clarify their behaviour, to rationalize it and explain it (Stienstra & Van Noort, 2008). People are very capable of talking about their past experiences, but to express their future and latent needs and desires is much more difficult, especially if we require rationalized answers. Alternative approaches to get to know the customer are observational techniques, such as customer safaris and rapid ethnography. Even though these techniques provide insight by focusing on the actual behaviour regarding products and services, they stay well clear of emotions, latent needs and desires.

 Such needs and desires can be viewed as the tension between who or what we are and who or what we would like to be, between what we have and what we covet. Our behaviour is aimed at resolving this tension, and new products and services aim to fill this need (Callebaut et al., 2002).

In marketing, needs-based models are used to identify target groups. Lifestyle models segment consumers based on lifestyle, each of which represents a particular value orientation and associated consumer needs. The disadvantage of these models is that they are not domain-specific and thus ignore the fact that behaviour is context-dependent. A consumer can have various orientations in various domains. Moreover, certain values can undergo a change in significance over time. Psychodynamic models are based on the work of Freud and Jung, (see Callebaut et al. 2002). They describe consumer behaviour by means of archetypal needs-fulfilment strategies, thus providing an understanding of the world of latent needs and access to them. Although the application of this model allows for domain-specific use, it is unsuitable for a user-driven approach. This is firstly because a theoretical model like this, harbours its own vision of reality, thus sustaining the internal orientation.

An internal orientation results in tweaking current practice, instead of innovation. So if we wish to develop truly new products and services, an internal orientation gets in the way. It is no easy task to shift from an internal orientation to an external orientation in which the customer is the point of reference. We live in a society that encourages us to think about the world from our own perspective.

The user-driven approach aims to take the world of the customer as 'centre of the universe', rather than the world of the company. User-driven research methods attempt to systematically study the complexity of the consumer context without entering the interaction with pre-formulated hypotheses. Therefore, user-driven approach can help companies take on an external orientation, provided that they a) provide valid insights, and b) take the company on board in the learning process.

Contextmapping (Sleeswijk Visser et al, 2005) is such an inductive method that combines generative techniques (Sanders & Dandavate, 1999) with a grounded theory research approach (Glaser & Strauss, 1967). Contextmapping applies creative assignments such as collage-making to help customers to reflect on their own lives and express themselves, thus allowing them to contribute in a design team as 'experts of their own experiences' (Sanders & Dunavante, 1999). The basic mechanism in a generative technique is to evoke memories and to have people be creative, make designerly artefacts (such as collages, prototypes and models) and subsequently explain their artefacts by means of the stories behind them. The designerly artefacts function as a scaffold to reconstruct experiences, thus allowing participants to relive situations or give shape to their dreams. Through analysis and interpretation, structures, relationships and patterns are identified and developed that give meaning to the results in a specific context. Contextmapping emphasizes the process of communication with the development team, designers or marketeers, which focuses on empathy, inspiration and involvement (Sleeswijk et al., 2007). In fact, communication commences at the very start of the process.

Sanders & Stappers (2008) provide an overview of methods for user-centred innovation, organising them in a two-dimensional graph. The horizontal axis relates to the role of the user in the innovation endeavour. On one side, the user is regarded as a subject: informing the

innovation team. On the other side, the user is a partner: joining the innovation team with her expertise of her experiences on the topic at hand. The other axis relates to the leading discipline. On the one side, (market) researchers are leading, referring to the researchers' drive to find generalizable 'truth'. On the other side, designers are in the lead, referring to the designers' need for empathy and inspiration in the creative process). Within this landscape, contextmapping and market research are situated in opposite corners (see figure 1).

[INSERT FIGURE 1]

There are obviously substantial differences between market researchers and design researchers in their ways of working, their understanding of the objectives, and their criteria for quality. Obviously, in order to effectively work together, design researchers and market researchers need to put in substantial effort to reach a shared understanding about what it is that they -as a team- want to achieve and with which process. The case study at hand explores these issues. Below we describe how we applied a blended process in the health club industry.

Case Study: The Fitness-in-Motion project

The health club industry is booming: one in six citizens of the Netherlands is now a member of a health club. However, the 1,800 health club owners are also well aware of the fact that almost one quarter of health club members cancels their memberships every year. The cancellation rate is accelerating. Loyalty in other sports, e.g. football, is much greater. The health club industry's most pressing question is therefore: What can be done to promote retention of health club members? The retention issue is partly attributable to increased competition in the industry. More and more people want to stay fit, and more and more health clubs have opened their doors to meet the demand.

The health club industry is a prime example of an industry where entrepreneurs start their businesses based on opportunity combined with personal passion, in this case a passion for sport and fitness. Health club owners must invest significant sums of money on equipment when they start out. In order to attract new members, they tend to focus on promising strength and endurance and providing the best training methods and equipment, assuming that the customers will then find the way to their door. However, many customers do not find their way, and when they do, they are likely to walk out the door within the first three months.

Nowadays a health club owner needs to think from the customer's perspective and understand that different customers have different motives for going to the health club. To this end we recently conducted an extensive research and innovation project in order to gain insight into the motives and needs of customers so that we could enhance the provision of services with a target-group-specific range of facilities.

In this study, we opted for a combination of generative qualitative research and quantitative panel research. The qualitative techniques were used to map the customer's experiential world in all its

richness. The results of the qualitative study were subsequently used as the basis for an exploratory quantitative follow-up study, in which we searched for relevant motives and the resulting motivational customer segments. We chose a quantitative approach, based on the idea that quantitative extrapolation of structures and patterns from the data are better suited as 'evidence' to support our choices.. These results were then reconnected and enriched with the insights from the qualitative study. Developing various innovative service concepts for each customer segment provided actionability. Below we describe the procedure in more detail according to the different contextmapping process stages (Sleeswijk *et al.*, 2007).

Preparation

The qualitative and quantitative research teams started by jointly identifying the domain in which an organization intends to be active and to have an impact. For example, is the health club's domain 'movement' or 'healthy ageing'? The health club industry is a saturated market in which individual health clubs are looking for ways to set themselves apart from the crowd. This is a serious test of the health club owners' marketing aptitude, which is still in its infancy in this industry. The study focused on the health club experience within the health club itself. Thirteen athletes from two different health clubs in the Dutch city of Utrecht took part in the qualitative part of the study. The health clubs differed in range of services and location. One health club was small and located in a deprived area. The other was large and located in an affluent neighbourhood.

In order to prepare the participating health club owners, we provided them with an interview kit, and asked them to investigate their club members' experience at the gym. In a session the owners identified user profiles based on the identified needs. This functioned as a starting point for the data interpretation. (see figure 2)

[INSERT FIGURE 2]

Sensitization

Sensitization is intended to help participants develop context awareness on the topic at hand, here related to the way they maintain their body. In this process participants were triggered, encouraged and motivated to think about their personal context, to reflect and to explore in their own time and environment. About a week before the first session, participants received a packet containing inspiring assignments that helped the athletes get prepared to the best of their ability (see figure 3). The athletes were encouraged to focus on the subject by means of short questionnaires, tasks and assignments. One task was to photograph the contents of their own gym bag and their trip to the health club. This encouraged them to become more aware of their own experiential world, so they would come to the session prepared.

[INSERT FIGURE 3]

Sessions:

In the two group sessions individual creative assignments were alternated with group discussions. This helped the athletes (being experts on their own experiences) to bring their own world of experience into focus. They provided input through collages, then presented their creations to each other and discussed the resulting insights (see figure 4) All sessions were recorded on video.

[INSERT FIGURE 4]

Interpretation:

Relevant segments were identified from the video, then transcribed. Segments were clustered and relationships were identified. A model gradually developed that identified the motivational factors for these athletes (see Figure 5). The model shows that the athlete's motives change during the various phases of their health club experience: In the preparatory phase, the athletes prepare themselves for their visit to the health club. Their motives vary from 'looking forward to going' to 'obsessive urge'. In the health club-visit phase, their motives range from the *exercise* in and of itself to the *context* in which they exercise. After a workout, they express their motives using terms ranging from *physical improvement* to *mental harmony*.

[INSERT FIGURE 5]

Next, we constructed a set of seven personas based on the motives, desires and ambitions of the group of athletes. A persona is an artefact, a narrative that is linked to a fictional athlete (see Pruitt & Adlin, 2006), constructed from combinations of behavioural and motivational elements that were identified among the participants. Here, we opted for staying as close as possible to the characters of the real users in the study. For each cluster of needs, one user was selected to develop more fully as a persona, allowing for slight fictional additions and inclusion of insights from other users in that cluster.

Analysis & Validation

The material from the qualitative study was used as a basis for quantitative follow-up research in order to gain insight into the motives of appropriate behaviour, on the basis of which a number of different motivational segments can then be distinguished. Customers of twenty different health clubs were asked to rate statements on motivation and perception on a 7-point scale based on personal applicability. More than 5,000 respondents participated in the study from January to June 2010 (response rate of 30%).

The basis we chose for our segmentation was a combination of the motivation and perception statements for all three phases of a visit (before, during, after). These questions covered the psychological drivers relating to exercise as they were revealed through qualitative research. Firstly, a factor analysis was carried out in order to expose the structure of the statements. Two strong factors and two weak factors were derived from this analysis; all the factors lent themselves to clear interpretation (see Table 1).

[INSERT TABLE 1]

On the basis of these factor analyses, we formulated the following four factors relating to what motivates health club members to exercise:

» *Factor 1*: **Performance** versus **Compensation** (as the personal goal of the health club customer): Those whose personal goal is performance will prioritize physical hard work and mental release. Those whose personal goal is compensation will exercise in order to compensate for an unhealthy lifestyle.

» *Factor 2:* **Discipline**: Those who like routine and regularity. They go because they know that it is good for them and they will feel better afterwards.

» *Factor 3:* **Extrinsic** versus **intrinsic motivation**: Those who do not derive much pleasure from exercise versus those who enjoy the activity for its own sake and for whom being active is a motivation in itself.

» *Factor 4:* Exercising **individually** versus exercising **together**: those who would rather exercise individually versus those who prefer to exercise with others and sometimes need others in order to achieve their fitness goals. The exact function and role of others will differ, however. Some need the company of others in order to stay motivated, while others need a training companion or an example: '*When I see others, I want to achieve that too*'.

A two-step clustering analysis was then carried out (Since the factors are not all equally reliable, the cluster analysis was carried out using the individual items). This resulted in the formulation of five customer segments which differ from one another in each of the four motivators, represented in Figure 6.

[INSERT FIGURE 6]

We then worked with health club professionals and customers to develop the profile of the different customer segments further, partly on the basis of the insight that we acquired through the context-mapping research. The five segments are outlined below.

» **Results-oriented customers**: *If you are healthy, you look better and that means you achieve more in life... people who look better are more successful.*' 20% of health club customers belong in this segment. These are the health club users who set themselves targets and want to achieve

results. Their own performance is important to them. They want to work hard, and improve constantly, partly for the sake of looking good. The admiration that they receive from others is another motivator. It is important for them that they are free to go to the health club at a time of their own choosing. This group contains a relatively large proportion of young people (63% are under 40 years old, compared to 49% on average) and of men (56% versus 42% on average). The challenges of achieving goals (20% versus 11%) and developing muscle strength (51% versus 36%) are more important motivators for exercising than in the other groups.

» **Motivated customers:** *'I train at least six days per week and always for at least two hours.'* Sixteen percent of health club customers can be put in this category. They derive their high level of motivation from their intrinsic pleasure in their good performance and constant improvement, just like results-oriented customers, but they can sometimes be too fanatical and then they need to be encouraged to slow down. Exercise can sometimes be addictive. The discipline, rhythm and routine are also important motivators for this segment. These customers like to empty their mind and not think about anything else while at the gym. A healthy lifestyle is important to them. This group visits the health club the most frequently (36% at least three times a week, versus 22% on average). Three-quarters of them have a higher loyalty score than average. Exercising socially is important for them. They attach more importance than other groups to the people in the health club (the instructors, other staff and other club members).

» **Maintenance customers:** *'I am fairly disciplined. I do the things that I think I ought to do.'* The most important motivator for this type of customer is to stay healthy and stay in good physical shape. They have more difficulty maintaining a healthy lifestyle. For these customers, exercise is a way of compensating for an unhealthy lifestyle, so that they can continue to go to the pub and eat what they want. 22% of health club customers can be put in this segment. They are not really keen on exercising at the gym as such, but they are still motivated enough to go to the health club. It is not about having fun, but about efficiency. Other people (instructors, other club members) are not important. That is not why they come. The loyalty of these customers is low: 71% of them score below average on loyalty. The frequency of their visits is also lower than average: 54% come no more than once a week (versus 37% on average).

» **Enthusiasts:** *'...if I want to stay happy, I just have to exercise. It just makes me feel good!'* These are the health club members who come to the health club to work on keeping fit and relax. Mental well-being is at least as important as the physical result. This is exercising to relax, unwind and feel more energetic. They do not mind exercising in a gym, but that is not the goal for them: *'Outside would be better, but in the winter the treadmill is the best option'*. Seventeen per cent of health club customers fall into this segment. This group consists of a proportionately high number of over fifties (45% versus 26% on average) and they attach great importance to a healthy lifestyle. The facilities on offer in a health club are relatively important for this group. The other members are less important because these customers tend to like exercising alone.

» **Social customers:** *'If I exercise with other people, I have more fun, I talk more, and I enjoy myself more.'* These customers exercise in order to keep in good shape and stay healthy. They have a reasonably healthy lifestyle. This group includes 25% of health club customers, including a relatively large proportion of women (71% versus 58% on average). In contrast to the maintenance customers, the pleasure they derive from exercising comes partly from being with other people, which also forces them to stick to a routine and a rhythm.

Communication

Rather than providing a report, we ensured that the resulting insights would indeed lead to new perspectives by means of organising four creative sessions based on the motivational model. Each session focussed on a single customer segment. Eight health club owners participated in these sessions. They each brought along one of their members who represented one of these segments, according to the owners. During this session, innovative concepts were developed using a set of inspiration cards. These cards featured four categories:

1. Customer insights from the Contextmapping study.

2. Trends in fitness/sport or health related areas -such as diet or smoking cessation.

3. Conditions and conventions, which, if contravened, could also result in innovation. One such convention, for example, is the idea that you always need to visit a health club if you want to work out.

4. Creative change cards featuring permutation tasks such as reduce, increase, make smaller or larger, etc.

Many ideas resulted from these sessions. Once organised and combined, these ideas produced 21 innovation concepts. These concepts were then organised in the various customer segments, thus providing a framework for fitness entrepreneurs to focus their innovation efforts and direction for new services. Finally, several concepts were developed further for individual health clubs in order to provide case examples.

Discussion

We combined Contextmapping and large-scale questionnaire research to effectuate a user-driven innovation approach in the health club industry. We started out in opposite sides of the research spectrum, as shown in figure 1. We opted to not merge our research efforts into a non-descriptive middle ground. Instead, we maintained the essential qualities of the two research approaches, while utilizing the strengths of both to reinforce the results (see figure 7).

[INSERT FIGURE 7]

The contextmapping approach provided the innovation process with inspiration and insight, as well as emotion (affect). The market research brought statistical reliability, cognitive reasoning, and thus a sense of generalizability.

Below we will reflect on the three main insights that we gained from this project: First, that a combination of inductive and deductive methods can provide a powerful approach to user-driven innovation, provided that the researchers are open to value each other's research attitudes. Second, that user-driven innovation provides a way for successful multidisciplinary collaboration. Third, that taking the client along in the process was an essential driver for success.

A user-driven approach requires inductive (data-driven) methods rather than deductive methods, and in this regard qualitative and quantitative explorations go hand in hand. An exploratory qualitative study into the perception of a limited number of customers helps to identify latent needs. However, this kind of qualitative analysis and interpretation is a highly subjective process, which puts high requirements to the skills and experience of the researchers. Such a qualitative analysis can be complemented by an exploratory quantitative segmentation. This allows for the necessary flexibility to learn from the world of the customer, without being (completely) dependent on the subjective interpretation of researchers. It also makes it possible to substantiate and legitimize choices made for a target group and positioning strategies.

The added value of combining generative design research and quantitative market research methods lies also in the multidisciplinary approach, the collaboration between the disciplines of design and marketing. Designers can use their creative skills to help marketeers gain access the world of imagination, whereas marketeers and market researchers can help bring reason (cognition) into design. Or, at least help substantiate insights and concepts, in order to make them more viable in the business world.

Taking the fitness entrepreneurs along for the ride helped them understand the mechanics of the market they were operating in. For this purpose, the creative and qualitative research approaches are much more powerful. However, these fitness entrepreneurs first needed to be convinced of the purpose of this effort. As the status quo is numbered-based market research we they first had to be engaged by means of basic statistics- after which they were more prone to open up to the real voice of the customer.

Conclusion

The value of the user-driven type of segmentation for organizations can particularly be found in providing direction and focus, in raising awareness of who you wish to impact as an organization, and in providing a framework, a common language that can be used for communicating with one another. To make the results relevant for the health club industry, the first step is to realize that no two people are the same. Everyone engaged in physical fitness has his or her own motivations, aspirations and ambitions for doing so. The second step is to decide which target

group the organization wishes to have an impact on. The aim is then to aim the development of new products and services directly at them. This implies, however, that people outside the target group may feel left out. Is that a bad thing? In the case of SME innovation we think this is the way to make a difference in a saturated market. *"By choosing a specific target group I can spend my advertising/marketing budget on that group instead of using a shotgun approach and drawing in customers whose wishes and desires I cannot meet, and who will cancel their membership after a short time anyway,"* says one of the participating health club owners.

We hope that we have been able to contribute to the further professionalization of the health club industry in this area by introducing target-group-oriented thinking through the results of the Fitness in Motion project. We also hope that by this example of merging qualitative generative techniques from the field of design with quantitative large scale consumer research, we enable companies to move towards a user-driven innovation approach. And, we hope to have shown that designers with a qualitative, generative research attitude and market researchers with a quantitative, deductive research attitude can successfully collaborate provided that they take time to learn to understand and appreciate each others fundamental attitudes towards research and innovation.

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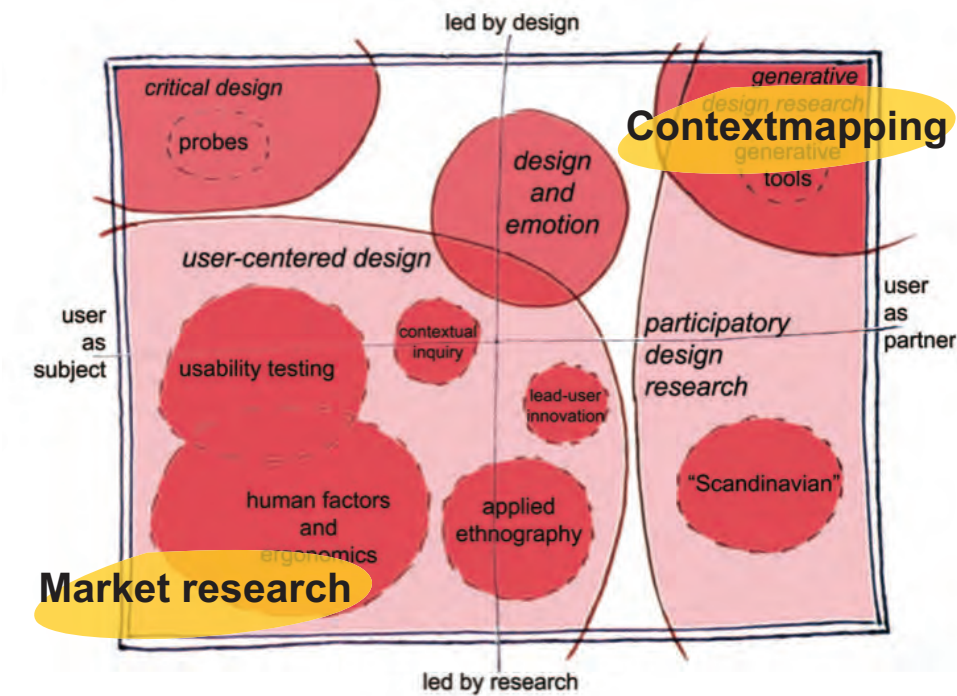
Figures

Figure 1: The landscape of user-centered research (adapted from Sanders & Stappers, 2006).

Figure 2: Interview posters (left) and health club owners interpreting and organising the interview posters (right).

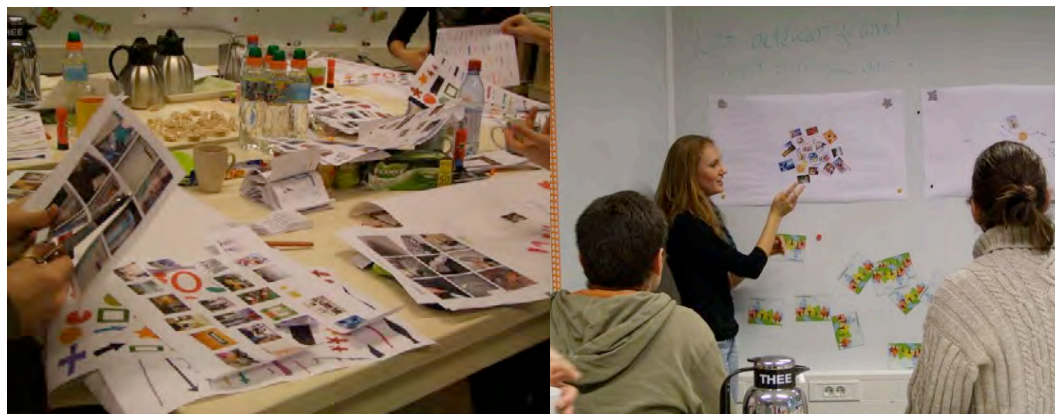Figure 3: The fitness sensitizer, containing a variety of assignments for the participants.

Figure 4: Participants individually make collages of their experiences (left), then present and discuss in the group (right).
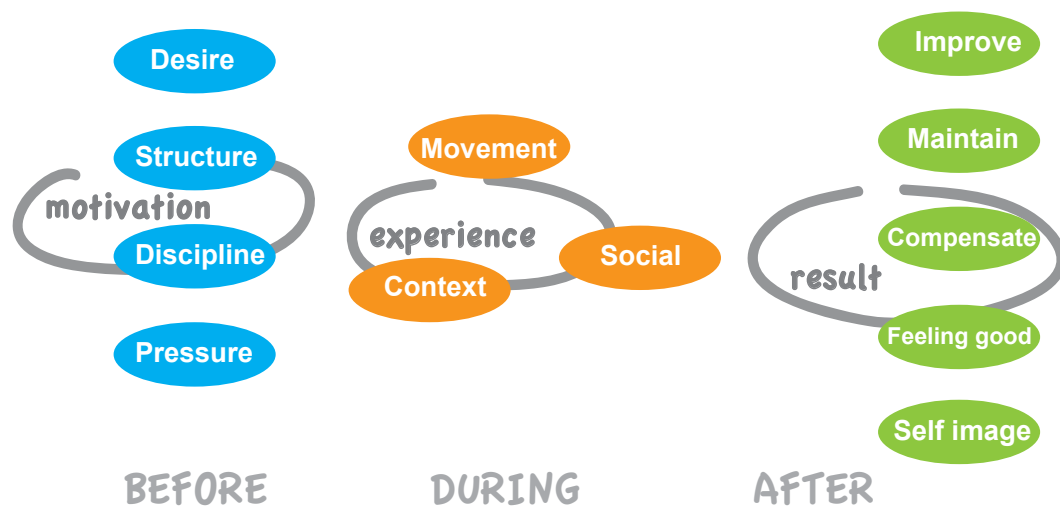
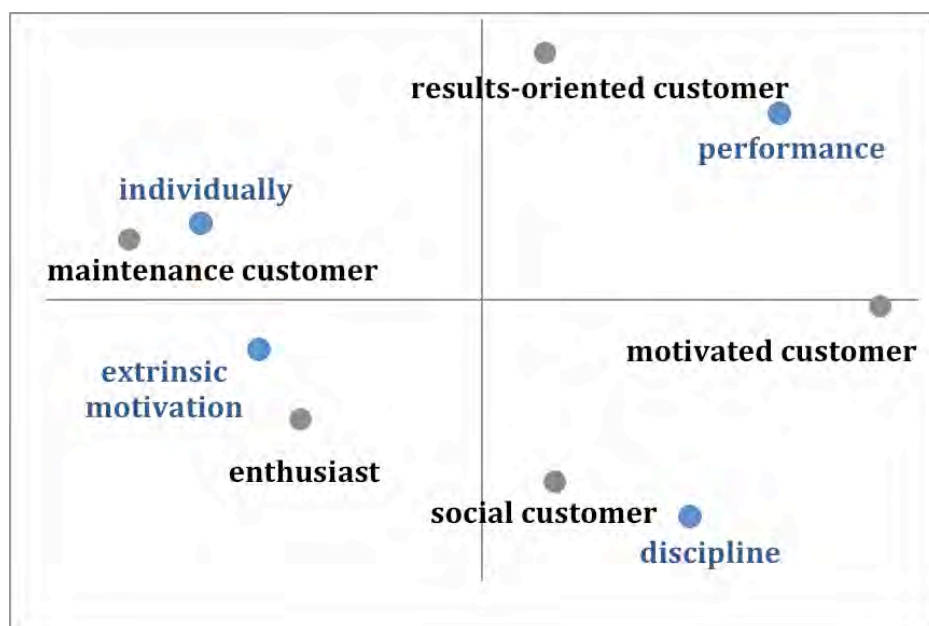Figure 5: Different motivational drivers during the fitness journey

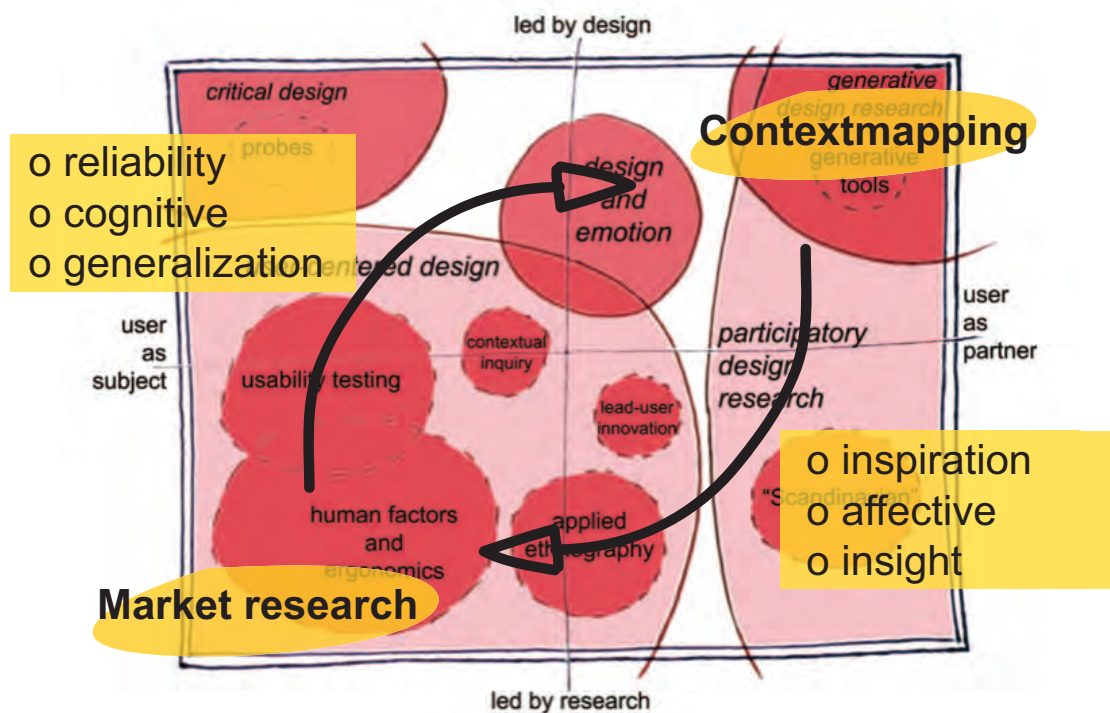Figure 6: Athlete segmentation based on the four motivational factors

Figure 7: Design feeds market research and vice versa. (adapted from Sanders & Stappers, 2008)

Tables

Table 1: Results of the factor analysis on motivation and perception statements

Motivation & perception	Achievement oriented	discipline	extrinsic motivation	individual
Admiration from others, greater self-confidence through better appearance	.72			
When I see others, I want to achieve that too	.72			
Seeing others working hard gives me energy	.70			
I constantly want to be better	.65			
It's an addiction: sometimes I have to stop myself from going	.58			
Sport can also be an escape	.48			
I used to be overweight, but now I have no weight problem. That is because of exercising	.40			
I feel great afterwards		.77		
I like the rhythm and regularity		.76		
You know that it's good for you, so you go		.73		
It irritates me if other people watch me while I'm exercising			.69	
I find it dull to exercise using apparatus			.61	
I like eating good food and I like going to the pub, so I also need to exercise			.58	
Having fun exercising on your own and feeling happy				.75
It's more fun with other people	.31	.48		.56
The freedom to decide for myself when I exercise		.47		.50
Cronbach's alpha	.74	.71	.36	.30