Moving Innovation with User Involvement

Master's thesis

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Executive Summary

The race for innovation is on and innovation capabilities are considered as key components for achieving success in many industries. Leveraging external knowledge offers a chance to improve the problem solving processes behind innovation challenges. This master's thesis will investigate how crossing organisational boundaries in the direction of users can be conducted. It can be an advantage to integrate users' knowledge by involving them in problem solving. They sometimes hold key knowledge to solve an innovation challenge.

Theories of integrating both individuals and crowds in creation of innovation are applied in the context of the case study firm Me-Mover. A firm recently established with the vision of involving users in its product development and marketing effort. Analysing empirical material, collected via interviewing Me-Mover's CEO and an online questionnaire, with the selected theory concludes that user involvement has great opportunities. The majority of respondents to the questionnaire would like to be a part of the user integration. Integration can happen on individual level through workshops, or by broadcasting problems unsuccessful solved in a crowd. Then members of the crowd can submit solutions to a posted problem. The questionnaire also reveals intrinsic motivation as the most important for participating. Offering price reward or public recognition by the firm does not have the same effect on the respondents' motivation.

But user integration is not just a simple and cheap fix to innovation problems. It requires capital and prior knowledge to initiate and keep running, along with the right strategic setup of the firm. This thesis will investigate how an overall user integration strategy can be designed.

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1. Introduction

This master's thesis is a study of user involvement in business activities. More specifically, it studies how user and crowd involvement can be implemented as a new organisational method in the firm's business practices. Both users with arms length relation and those closer are set to be leveraged. The focus is on product development and marketing practices. In relation to this organisational boundaries must be crossed to collect new knowledge and leverage users. It is based on a case study of Me-Mover, a recently established Danish small and medium-sized enterprise (SME).

Correctly managed openness towards users provides a powerful tool, which can underpin different business activities. Openness and user collaboration are often associated with product development. But this thesis will also study the approach of crowd involvement in marketing efforts. A carefully planned user collaboration strategy might offer the opportunity to hone the corporation's efficiency. Because resources spend to generate the right fraction of knowledge, can in some situations be saved by tapping it from an outside location.

Before user involvement can take place, understanding of external located value creating sources and coherent collaboration management with them are essential. The right strategic posture and aligning collaboration strategies are necessary for this. Using Me-Mover as case study, will offer the right conditions to apply and investigate user collaboration methods.

1.1 Me-Mover's product and vision

"The Me-Mover has the same feeling as inliners, which enables you to swing back and forth. You can really radiate the joy of moving! You stand upright with a good posture providing you with an overview of the traffic, and you look cool while moving!" (Eliason, 2011)

Me-Mover is currently working on a prototype of their product, the personal transporter Me-Mover City. It has no saddle so the user stands upright, and it is powered by a stepping mechanism. The Me-Mover has a new innovative drivetrain system that requires the user to step up and down in a straight line, instead of the classic round motion. There are no changeable gears like on an ordinary bicycle. The gearing is instead depending on how powerful the user steps down on the pedals. The further the pedal is stepped down, the harder the gearing gets. Vice versa the gear is lighter when the pedal is not stepped deep down.

The frame joint is hold together with a special bearing which allows skiing-carving movements. It makes it easier to steer and more fun to use. The smart design allows it to fold to together into "trolley" like vehicle in a matter of seconds.
When folded into this form it can be taken onboard a metro, bus or train. It is all about active movement on the go, to transform the daily commuting into a level of practical active movement for your health and amusement.

The product is classified as a personal transporter with a compact folding bike as its closest competitor. It is intended for urban usage only. The personal transporter offers almost same radius of action as a bicycle, hereby it distinguish itself from other urban transportation methods like rollerblades and the compact folding bike.

In large cities the personal transporter really comes into its' own. From being a complementary product in competition with rollerblades and kick scooters, it can now be seen as a substitute to bicycles. The versatility is a significantly advantage because the folding mechanism and smaller wheels, creates a great interplay with public transport.

The launch is set to 2012. Me-Mover's vision is to make active movement first choice over public transport or car in the urban environment (Me-Mover, 2011). They will achieve this by offering an assortment of different products surrounding the personal transport.

Users are supposed to be a vital part of this plan. Me-Mover wants to start to collaborate with them. *" So it is developing, marketing and then we also intend to try to get the personal transporter sold via direct, like a kind of reference sale"* (Eliason, 2011). Pointed out by Jonas Eliason CEO of Me-Mover there are three areas targeted for user collaboration which are; product development, marketing effort and sales activies. The assumption is that these will be more effictive with user invovlement.

1.2 Problem statement

In line with the aim of the thesis and with the specific case study context, an investigation of user entanglement in business operations will be conducted. This lead to the following problem statement:

How can a user involvement strategy be designed in order to explore and exploit opportunities among them?

This main research theme can be investigated through following sub questions:

1. **Why is openness essential in this case?** *To accept and embrace external knowledge and ideas a certain degree of openness is needed. Openness is important for exploration and later exploitation of outside located value.*
2. **Which strategic posture and collaboration do openness and external value creating sources require?** *The current all in-house strategic setup must be changed into a new one that allows for outside value creation in the ecosystem together with in-house value capturing. To fully leverage external value creating sources collaboration needs to be orchestrated in an inner and outer layer.*
3. **How can the firm's users be leveraged?** *Leveraging users can be on individual or crowd level. Separation is important to decide which method suites best and depends whether the individual or the crowd is targeted.*

1.3 Delimitation

The scope of the thesis is user collaboration in the fields of product development and marketing effort. It provides methods of how users can be part of the processes not how the output of such can be; codified, interpreted, controlled, filtered, managed or transformed to suit the firm. Users are defined as either potential customers, potential users of Me-Mover's product or individuals with passion for the approach whom would like to participate. Since Me-Mover yet has to fully launch its product, customers and users are still seen as latent. Furthermore the thesis will not judge whether the users are capable of participation or not, only how they can be involved. It is a globally approach meaning that users located everywhere are welcomed to join, but communication with users will at first happen in English.

2. Methodology

This thesis is a deductive approach, since it is aiming to provide evidence to prove the function of the applied theories. It is using theories to propose a strategy about how Me-Mover can initiate organisational innovation via user involvement. Conclusions will be drawn upon application of these theories. The selected research method will underpin this deductive investigation.

The present thesis consists of primary research and secondary research. Primary research has the advantage of addressing the specific needs as the collector is in control of the research design and data collection. Primary data is obtained through an interview and by creation of an online questionnaire. The interviewee is the CEO and founder of Me-Mover Jonas Eliason.
Only this person is interviewed. But the objective is to gather information about the firm and not diverse opinions about it. It will provide the most accurate foundation to build the analysis on. Information obtained here is primarily used to answer the part of the research question regarding strategic setup.

The online questionnaire has been conducted with potential users of the personal transporter. A disadvantage of it being online is that the interviewer is not present in person to feel the atmosphere. Furthermore an interviewee can misunderstand a question and the interviewer is not there to explain it or provide necessary elaboration. Scepticism from individuals towards questionnaires is to be expected, and therefore many refuse to participate. Data from the online questionnaire are used to point out how respondents perceive user integration. It will help answer the part of the research question about leveraging users and crowds.

Secondary research was done through; webpages, articles and online social medias. The desk research plays an important role in backing up and underpinning data collected from primary sources. The disadvantages of secondary data are questionable validity and context in which it was originally collected. Therefore it needs to be applied with a critically sense.

The interview and desk research represents qualitative data. They are aiming at providing an in depth understanding of the case. Empirical material gathered here is necessary to understand the firm's current resource base and strategic setup. The online questionnaire represents the quantitative data. Its structure is based on multiple choice questions and aims at investigating how various individuals' thinks about Me-Mover's possible involvement of them. The data is needed to analyse which factors entice individuals to participate, in order to accurate determine how they are leveraged.

2.1 Interview with the CEO and founder

Since Me-Mover is a recent start up, the seep out of information about them and their operations has been close to nothing. Therefore, desk research is not comprehensive enough. So in order to collect empirical material to build the thesis on an interview with an associate is necessary to gather additional information.

The Me-Mover team is build up around two every day active members, those being Jonas Eliason the CEO and Jacob Hiob Thilo engineer and responsible for technical operations. Jonas handles the outgoing communication, and he is also the man behind the idea of the personal transporter (Eliason, 2011). It makes him the obvious and best choice for an interviewee.

Disclosure of how Me-Mover is operating in present state, and which future objectives there have been set for the firm is the aim of the interview.

An interview in two parts took place at Me-Mover's office and workshop located in Rødovre, few kilometres west from Copenhagen, Denmark. The targets are to gather enough qualitative information about Me-Mover to paint a complete picture of Me-Mover's present situation and its vision.

The first part of the interview is aiming at understanding the reasoning behind the personal transporter. Its functionality and how it is positioned in the market of personal transport. Second part of the interview is conducted to gather information about the firm's vision of entanglement of users and innovations. Beside Me-Mover's vision it is of particularly importance to investigate its access to resources. The topic of this thesis is to enlighten how different approaches to user driven innovation can look, based on circumstantial data.

CEO Eliason is the only person that can provide information that fulfils preset requirements to the interview. An interview with him will give a reason and evidence for the relevance of the thesis' topic in the firm's case.

When interviewing the CEO, it becomes quite clear that it is also the inventor speaking. He is visionary on behalf of the firm, and has passion for both the invention and active movement in the urban jungle. But cautions are necessary when interviewing a passionate soul. The risk of biased answers is high. Normal critical sense is needed when the answers are interpreted.

The interview was kept in Danish to prevent any unclear expressions and uncertainties with using a foreign language. Additional to the interview, the author has spent some hours at the firm to feel the vibe and to absorb the atmosphere. Still the author has no biases in his attitude towards the empirical material.

2.1 Online Questionnaire

An online multiple choice questionnaire has been conducted. The questionnaire is created on the online market research agency SurveyMonkey[1], The aim is to provide quantitative data about the potential users' motivation for participating in Me-Mover's user collaboration approach. Their exact motivation for participating in a user innovation approach is indispensable for Me-Mover to known. Offering accurate motivation elements is a key to achieve success with user involvement. The online surveys give based on the answers, an idea about what potential users find motivating for engaging in problem solving.

It is online, because it is practical to spread around fast and to get more respondents. Respondents that due to their globally location otherwise would be inaccessible with normal hard-copy questionnaire.

Me-Mover is still prototyping their product at the workshop and therefore no users have yet tried it or bought it. Resulting in the marketing effort is running on half speed, and the brand awareness is still quite low. But Me-Mover has followers on fan page on Facebook. They are scattered around globally, and the only efficient way to reach them is through the internet. The majority of these fans were aware of Me-Mover even before the author was. Therefore, they are seen as valid respondents not biased by the author. But that does not mean they are not biased by relations to the Me-Mover team. At the time of writing 225 individuals are fans of Me-Mover on the social network Facebook (Facebook, 2011).

Beside Facebook the questionnaire is posted on two online forums, concerning bikes and bike like transportation methods. This is done to get even more data, to build accurate motivational elements on. The forums are BikeForums[2] and Folding Forum[3]. Members active in here are likely to have interest in innovations within this field and to be potential users. Because of the topic on these two online forums are new trends regarding this market.

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[1] http://da.surveymonkey.com/
[2] http://www.bikeforums.net/forum.php
[3] http://www.foldingforum.com/

The questionnaire has been viewed 71 times and 57 respondents have provided valid answers. 8 respondents answered no to questions about involvement in Me-Mover's innovation challenges. Therefore these 8 respondents are subtracted from the 71. Furthermore 6 respondents did not complete the questionnaire so answers provided by them are seen as none valid. So in the end the empirical data builds on a population of 57 respondents.

Respondents are encouraged to identify themselves with an email address. But individuals can access and answer the online questionnaire multiple times anonymous. 22 individuals have identified themselves with email addresses. This means that the remaining 35 collected answers could be provided by one or more of the same 22 individuals. Taking this into account the data collected must be handled with a critical sense.

Furthermore this quite low number of respondents is negative for Me-Mover's vision of user involvement. If respondents which are potential users refuse to set aside seven minutes to answer the questionnaire, encouraging them to spend hours on problem solving might be difficult. However, it might be argued that people are reluctant to participating in research studies in general. Involvement in creative problem solving tasks might prove different, if users become real fans of the product

3. Theoretical Frameworks

The following chapter introduces the theories to analyse the findings. All the theories are aiming at user involvement in Me-Mover's business activities. The theoretical framework chapter presents the theories in a well planned structure. First, it introduces the theory of open innovation. It illustrates how openness is absolute essential for involving users. Second, it introduces open strategy and collaboration management. These will provide theoretical framework on how Me-Mover's new strategic posture should look like, and how the new user collaboration modes should be managed. Thirdly, is the introduction of user driven innovation and the lead user method. These theories focus on how to leverage the inner layer of users, those who are closest to the firm. Lastly, is introduction of the theory behind crowdsourcing, and how to leverage the outer layer of users.
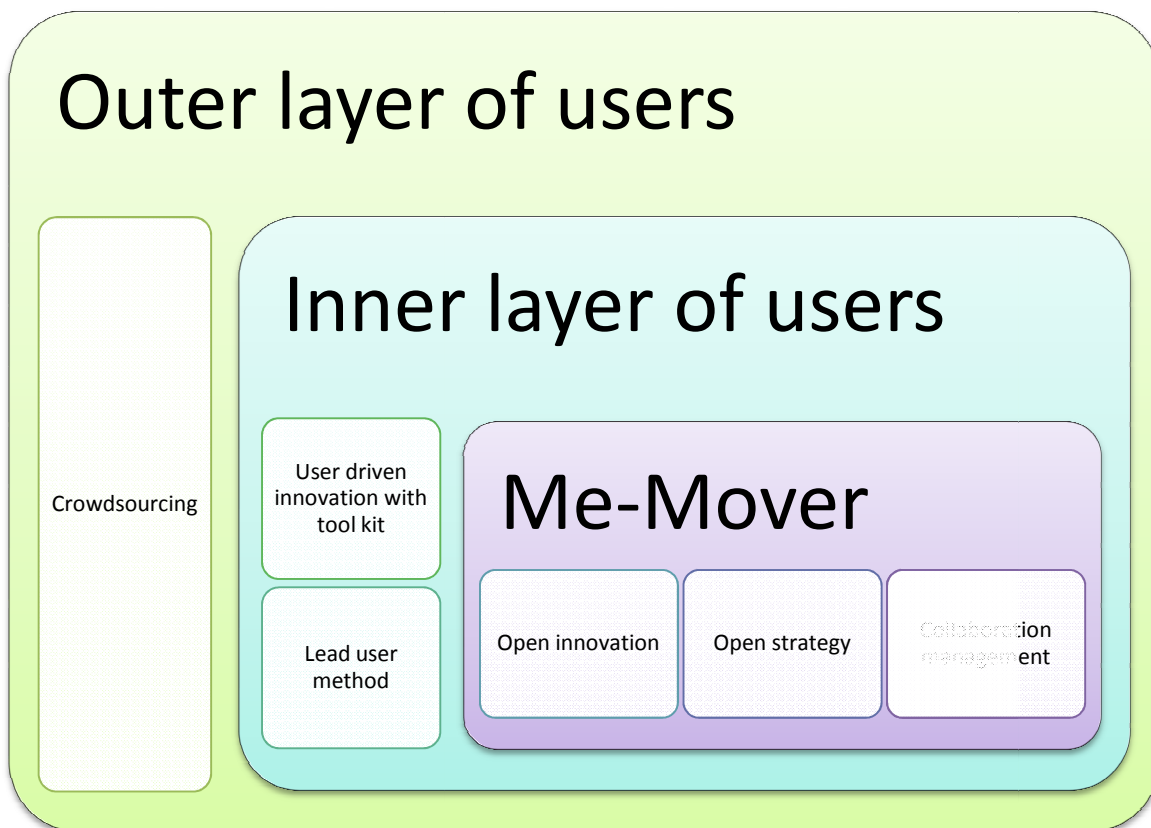
Figure 1

The figure shows the order in which the selected theories will be reviewed and applied. At first Me-Mover must make the right setup of the firm to facilitate user innovations. Afterwards the firm will target the different layer of users in an attempt to leverage them in business activities.

All theories will help Me-Mover develop a strategy in order to achieve innovation in certain desired fields. *"Innovation is the successful exploration of new ideas"* (Tidd & Bessant, 2009, p.16). The same definition of an innovation is used in this thesis.

According to Tidd and Bessant (Tidd & Bessant, 2009) innovation consists of four dimensions which are;

- Product is what a firm offer the world
- Process is how a firm create and deliver the offering
- Position is where a firm targets its offering
- Paradigm is the context of a firm's offering

Two of these will be activated in this thesis by application of the selected theories. First one is innovation in the product dimension. It will be influenced by the open user approach by Me-Mover.

Openness will drive changes in product development, by providing knowledge need for radical new products or incremental improvements.

The second dimension activated is process. The opening up for value creation by external sources will alter organisational routines. Crowdsourcing, user driven innovation and lead user method theory will change the way value is being created. Going from internal only creation, to outsourcing of tasks to users.

3.1 Open Innovation

Chesbrough sees a change in the firm's competitive environment over the recent decades. The closed-innovation model which is build upon hiring the brightest employees, and then control knowledge generated via aggressive patent protecting is now being challenged. This was believed to be the right way to bring products from development and to market (Chesbrough, 2003).

The closed-innovation model is build to get the lion's share of the market through massive in-house investments in research and development. But it is now being heavily challenged if not over. Many organisations have started to seek knowledge across their own boundaries. Knowledge is often dispersed, and can be found globally in different continents, analogues markets or among customers.

Chesbrough calls this trend open innovation. The main point is to embrace external ideas and see the potential in profiting from them, instead of focusing on how to compete with them. But accepting external ideas is one thing another is how to generate profit from them. Exactly here does the process dimension of innovation play an essential role. *"Building a better business model is better than getting to market first"* (Chesbrough, 2003, p.38). Setting up internal processes of value creation and delivery, so they quickly can adept to incoming information is a necessity.

There are some different guiding principles of open innovation according to Chesbrough. This thesis will activate some of them. The first one, *"Not all of the smart people work us so we must find and tap into the knowledge expertise of bright individuals outside our company"*. The second one, *"We don't have to originate the research in order to profit from it"*.

The third one "*If we make the best use of internal and external ideas we will* (Chesbrough, 2003, p.38). These guidelines have linkage to external value creation, and the need of ideas located outside the firm's border.

The theory is selected to give foundation to analyse how the firm Me-Mover with openness can benefit from external knowledge and knowhow. Application of the theory will answer the second sub question; w*hy is openness essential in this case?*

Core open innovation principles are underpinning Me-Mover's vision of development driven by user involvement. The theory provides guiding principles of openness and on how to adjust to it. Thereby it makes itself crucial to touch upon in this given thesis, where external sources are set to be explored and exploited.

The theory is made up on general assumption about openness and an environment where external ideas and knowledge is fairly uncomplicated to get hold of. But Me-Mover is operation in a competitive and complicated world. Open innovation theory only suggests the open approach to external sources, and not how a specific approach might be created in a complex and competitive environment. The problem is to balance openness. So good external ideas can flow into Me-Mover and the outflow of internal knowledge does not create possibilities for opportunists to block market access or raise entry barriers.

Applying open innovation has another difficulty. Employees working with innovation in the firm might perceive the open environment as opposite to what managers in charge direct. This scenario would create confusion, and an attempted openness would be in danger of fading away.

To be open is not always enough to leverage external ideas. To get full advantage of openness Me-Mover must to able to convince users and communities, to active participation in their loveable course of urban active movement for fun and health.

3.2 Open Strategy

Operating with an open innovation approach, the firm's strategy needs to comply with both value creation and value capturing. Open strategy upsets the traditional view of ownership and control as the two main drivers of strategic success. Today propelled by globalisation and widespread of the internet a growing amount of value, that is useful for the firm is created by its environment.

Turning external value sources into a competitive advantage requires a carefully planned strategy. To address such strategic setup Chesbrough and Appleyard developed an open strategy approach. *"If we are to make strategic sense of innovation communities, ecosystems, networks, and their implications of competitive advantage, we propose that a new approach to strategy – open strategy – is needed"* (Chesbrough & Appleyard, 2007).

The core of open strategy is the two determinants value capture and value creation (Chesbrough & Appleyard, 2007). Value capture can be divided into firm or ecosystem, depending on which of these is going to capture value generated via openness.
Value creation is a question of the traditional in-house based or community-driven practice. Combing these two into a matrix produces four windows with options. The options contain different advantages and difficulties.

Balancing the two determinates value creation and value capturing is essential, for leveraging external sources and to sustain. *"Open strategy balances the powerful value creation forces that can be found in creative individuals, innovation communities, and collaborative initiatives with need to capture value in order to sustain continued participation and support of those initiatives"* (Chesbrough & Appleyard, 2007).

Open strategy's purpose in this thesis will be to analyse and answer the sub research question; *which strategic posture and collaboration do external value creating sources require?*. Open strategy is relevant to analyse this sub question, because a relocation of value creation is needed.

User collaboration makes it difficult to balance the value creation and value capture determinants in an approach. It requires not losing sight of commercialisation in the pursuit of development, and putting ownership and control aspects second to establishing of community participation.

A problem with open strategy is that it requires a multiple shift in the business model. Not focusing on protecting ideas and relying on external competences, will not grant the firm controllable competitive advantages like intellectual property. Competitive advantage has to be generated in collaboration with external value creating sources.

3.3 Collaboration Management

Many organisations have realised that innovative processes are best facilitated in a kind of network. This is to insure that enough brainpower is gathered to finalise a particular concept, and transform into a ready to market service or product. In such collaborations, harnessing ideas from crowds or selected few is a choice that has to be made. To choose which kind of collaboration is right for you is essential to achieve success in networking. As Pisano and Verganti pointed out, *"The new leaders in innovation will be those who figure out the best way to leverage a network of outsiders"* (Pisano and Verganti, 2008, p.78).

The main point in their theory is that there are four modes of collaboration; innovation mall, innovation community, elite circle and consortium (Pisano and Verganti, 2008). There are two basic issues dividing the different modes into a matrix model. The first one of these is governance of the network, whether it should have a hierarchical or flat structure. Second is the participation in the network, should membership be open for all or a closed selective community. Innovation mall is collaboration with hierarchical governance and open participation. Innovation community has flat governance and open participation. Elite circle has hierarchical governance and closed participation. Consortium is the last one and has flat governance and closed participation.

The different ways have unique advantages and disadvantages that enable them to solve specific tasks. To be able to choose between these modes of collaboration and select the most suitable one is a matter of the innovation context and the specific goals. *"Choosing a collaboration mode involves more than understanding the trade-offs. A firm must take into account its strategy for building and capturing value"* (Pisano and Verganti, 2008, p.83).

The reason why collaboration management theory is included in the thesis is to analyse which kind of collaboration with users that would be advantageous for Me-Mover's innovation approach. It will a part of the answer the sub research question; *which strategic posture and collaboration do external value creating sources require?*. The firm's vision is to absorb ideas and knowledge through open innovation and to facilitate this, managing the network is fundamental. Knowing what kind of collaboration that suite your objective is a valuable capability. There is an inner and outer layer of users, and managing these correctly is overall important.

The problem with the proposed collaboration management is to figure out what kind of collaboration suits best to solve the concrete challenge. When working openly on a project with users, Me-Mover cannot suddenly shift to a closed expert assistance instead. That could result in revolting among the communities that contributed with ideas, and Me-Mover's relation to these might suffer.

3.4 Customer Innovation

Often users have obtained a thorough knowledge of product specifications through their everyday life with it. Involving users in the development processes is a smart way to tap into this knowledge, and create a solid foundation for product improvements or even a new product. If Me-Mover is able to leverage this external source when working on an innovation it would generate numerous benefits.*"Outsourcing a portion of the innovation task to customers can be an effective approach for speeding up the development of products better suited to customer needs"* (Thomke & von Hippel, 2002, p.81). Thomke and von Hippel points out that customer involvement in product development can save time and enhance the accuracy

But before customer innovation also referred to as user driven innovation with tool kit in this thesis can take place, it has to make sense for the firm, and it has to be well orchestrated. Customer innovation makes sense when; the market demands more customised products and supplying this raises costs which are difficult to pass on to customers, when the firm needs many iterations before the product is fine tuned and lastly the firm's manufacturing function can be easily adjusted to received impulses from the customers (Thomke & von Hippel, 2002).

To orchestrate customer innovation in a productive way, a tool kit has to be provided for users. A tool kit is an assembly of tools, which allow the user to reconfigure or develop an object. In general five steps should be followed. Firstly, develop a user-friendly tool kit for customers (Thomke & von Hippel, 2002). It could be a piece of software or life-size objects, to change blueprints or the real product. But it must be understandable for users and easy to use. Secondly, increase the flexibility of your production processes (Thomke & von Hippel, 2002). The manufacturing function must be adapted to designs supplied by users. Thirdly, carefully select the first customers to use the tool kit (Thomke & von Hippel, 2002). Users with an urge to innovate will be obvious candidates. Fourthly, evolve your tool kit continually and rapidly to satisfy your leading-edge customers (Thomke & von Hippel, 2002). The tool kit must be updated with new designs and features, so changing these is a possibility. Fifthly, adapt your business practices accordingly (Thomke & von Hippel, 2002). Customer innovation will remove arm-length relation to customers so business practices must be ready for this, because if customers at one point feel neglected they might revolt.

Application of customer innovation theory will answer the question; *how can the firm's users be leveraged?*. The focus is on the inner layer of users, those with a stronger relation to Me-Mover.

Customer driven innovation theory will serve as a guideline to how users via five steps, can be equipped with a tool kit and integrated in product development processes. The theory has focus on computer simulation and software. But a tool kit can as easily be physical objects enabling the user to reconfigure and develop the product. The theory will provide an aspect of how users can be leveraged.

One aspect is to use "wisdom of crowds" to speed up the development. But equipping some selected users with a relevant tool kit has the potential to generate products perfectly suited to meet customer demands.

It is likely to cause changes in both product and process dimensions of innovation. Due to the user taking over a function previously carrying out by the firm and the result can influence the numbers and quality of products offered.

Enabling customers to create innovation is a resourceful task and is often carried out by larger firms. But Me-Mover is a small start up still without a fully product launch. So application of this theory must be adapted to Me-Mover's situation.

3.5 Lead User Method

In 1986 von Hippel coined the term lead user and a belonging four step method of how to integrate them (von Hippel, 1986). Since then the four step method or widely known as lead user method has evolved, and is globally incorporated in new product development, as firms try to reduce the risk associated with this. In 2004 Lüthje and Herstatt proposed their elaborated version. It will be applied in the thesis and beyond it will be reviewed.

The four steps of the lead user method are; start of the lead user process, identification of needs and trends, identification of lead users and concept design (Lüthje and Herstatt, 2004).

The first step of the method requires building of a lead user team and defining of goals for lead user involvement. Second step, is interviews and desk research to identify market trends. Third step, contains a search for lead users based on indicators from the step before. Fourth step, is to initiate a closed workshop with lead users for creation of novel product concepts (Lüthje and Herstatt, 2004).

The four steps make the lead user method a tool to identify and integrate lead users into a concrete innovation project of the firm. If conducted properly it could lower risk in product development and the final result might cover market needs better.

When engaging communities and crowds with product development, some individuals will show more talent and passion than others. To leverage these individuals by the lead user method will generate many competitive advantages for Me-Mover, and it is a way to establish the kind of bond Me-Mover wishes to have to its users and customers. Application of the lead user method will answer the sub research question; *how can the firm's users be leveraged?*. The focus will be on the inner layer of users, and involvement of these in Me-Mover's business activities.

Identifying and integrating a lead user is by nature a lengthy and resource consuming process. For Me-Mover being in their early start up phase, resources and time does not come in abundance. Therefore relying on lead users in initially product development, can cause longer development processes which result in delay in reaching the market.

3.6 Crowdsourcing

The term crowdsourcing was coined back in 2006 by Howe and Robinson (Howe, 2006, online). The idea is when an organisation leverage crowds of users or other enthusiasts in its environment, by moving the responsibility of an internal function out among them. Via crowdsourcing firms can take problems unsuccessfully solved, and post them in an undefined large pool of potential solvers. Howe explains it as following; "*Simply defined, crowdsourcing represents the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call. This can take the form of peer-production (when the job is performed collaboratively), but is also often undertaken by sole individuals. The crucial prerequisite is the use of the open call format and the large network of potential labourers*" (Howe, 2006, online).

Furthermore Howe points out that; "*I interpret crowdsourcing to be taking place any time a company makes a choice to employ the crowd to perform labor that could alternatively be performed by an assigned group of employees or contractors, even if the company is just now putting up a shingle. In other words, crowdsourcing need not require an active shift from current employees (or again, contractors) to the crowd; it can start with the crowd*" (Howe, 2006, online).

This statement explains that the task outsourced to the crowd does not need a history within a firm. It can simply have its start with engagement of the crowd in it.

This theory about exploitation of dispersed knowledge and capabilities was further evolved in 2008 by Brabham. *"Crowdsourcing is an online, distributed problem-solving and production model that has emerged in recent years"* (Brabham, 2008, p.75). Describing it this way clearly links crowdsourcing's potential, to the usage of the internet. This description of crowdsourcing requires both the firm and the crowd must have online access, before outsourcing of tasks can take off. But crowdsourcing it not just a smart new internet add-on. *"Crowdsourcing is not merely a web 2.0 buzzword, but instead a strategic model to attract an interested, motivated crowd of individuals capable of providing solutions superior in quality and quantity to those that even traditional forms business can"* (Brabham, 2008, p.79). Here Brabham stresses that crowdsourcing must be taken serious, and actually serves as a strategic problem solving model for a firm.

The value of openness in scientific problem solving has also been investigated. It demonstrated the efficiency of problem broadcasting to unknown a vast pool of outsiders (Lakhani et. al., 2006). *"The approach solved one-third of a sample of problems that large and well-known R & D-intensive firms had been unsuccessful in solving internally"* (Lakhani et. al., 2006, p.2). The solvers behind the broadcasted problems relied on previously obtained information from developed solutions. A contradictory point is that the farther a solver perceives his area of expertise is from the problem area, the more likely he is to successful solution. The solvers' motivation for participating in problem solving activity, were either intrinsic motivation or price award (Lakhani et. al., 2006).

The theory behind disclosure of problems to a crowd has been further theorised with a systematically approach. Building on inspiration from above mentioned, a process definition of crowdsourcing of problems has been established. It is a process with four different steps; definition of problem, broadcast problem, attract solution and select solution (Jeppesen, 2010). Before crowdsourcing can take place, a problem area must be defined as suitable. Then usage of broadcasting channels must be decided. After that how to attract solution must be considered, and in the end selection between them must be made.

Looking at crowdsourcing this way and one could get the impression that it is only capable of underpinning product development and research belonging to that. But the truth is that it slowly has morphed into a marketing tool. *"There's no question that crowdsourcing is new and exciting, offering brand owners powerful opportunities to engage consumers. It is a robust tool that, when integrated properly, can develop a direct, emotional bond with consumers – and it adds another component to the branding mix"* (Miziolek, 2011, p.17). Here Miziolek state that crowdsourcing also has the potential to solve problem regarding advertising. Examples of this are Chiqutia and Mountain Dew two firms which have achieved great success by crowdsourcing new brand design and advertising material (Miziolek, 2011).

Application of crowdsourcing in this thesis will answer the sub research question; h*ow can the firm's users be leveraged?*. But it will focus on how to leverage the outer layer of users, in Me-Mover's environment. It is relevant because applying crowdsourcing theory provides a systematically approach to engaging crowds. Hereby not only selected individuals have an opportunity to help solving problems, but also the hobbyist working home in his shed.

Globalisation and the widespread of the internet is underpinning MeMover's vision about taking advantage of disperse and globally placed crowds. Theory heavily relates it to internet because communication and sharing information flows way quicker in cyberspace. But it is not impossible to imagine crowdsourcing using traditional ways of communication. Using the likes of news papers or magazines is more costly and more difficult to spread globally. Therefore this thesis will look at the opportunity to apply crowdsourcing through the internet.

Crowdsourcing theory and principles will be applied to enhance MeMover's vision about leveraging user communities and vast pools of individuals, in both future product development and marketing activities. It is believed that this theory is of outmost importance to exploit opportunities in the environment of the firm. It causes changes in process dimension of innovation because internal functions will be outsourced.

4. Analysis

The analysis chapter will answer the sub questions, by using theory from the theoretical framework chapter and data from the case study. The analysis will also include new theory not presented previously in a minor scale, for altogether creation of in depth answers to the research questions.

Research questions will be answered they in order they have been presented in the introduction chapter and linked to theory from the theoretical framework chapter. The structure of the analysis chapter will follow the layer structure; by first analysing the importance of open innovation, second it will analyse the strategic setup necessary to initiate open innovation and lastly it will analyse how user can be leveraged.

4.1 Openness and Open Innovation

The purpose of this part is to analyse how open innovation thinking is a necessity for Me-Mover. The theory about open innovation is based on Chesbrough. In short Chesbrough describes open innovation as, *"a new logic of open innovation that embraces external ideas and knowledge in conjunction with internal R&D"* (Chesbrough, 2003, p.41).

To be successful with the vision of external value creation, Me-Mover must be aware of the approach behind crossing firm boundaries in creation of innovations. Open innovation theory will analyse and answer the sub research questions; *why is openness essential in this case?*

Openness around business operations at Me-Mover is a key to sense and react on external opportunities. Interviewing the Me-Mover's CEO shows somewhat awareness of this. *"My idea in the long term is to run this towards an open innovation strategy, which is difficult in the beginning because we work with investors were patent is an important part, and we are also working with Chinese manufactures"* (Eliason, 2011). This illustrates that Me-Mover's game plan require open innovation thinking. But working with investors in the start up phase, requires Me-Mover to focus on patents and protection of such. This is because investors often want as high security as possible in their investments.

Patents and particularly in general careful handling of valuable information are ways to secure investments. Further complication of an open approach is the use of Chinese manufactures. Especially over the last decade these manufactures has been in disrepute. Opportunistic behaviour and counterfeit have happen in several occasions. Outsourcing of production to them forces Me-Mover to share valuable information like blueprints. It is one way to trigger a case of counterfeit. In the recent years the world have seen many "made in China" copies of Western developed products, and latest an absurd copy of an entire IKEA warehouse (HuffPost, 2011). If Me-Mover's achieves success they will like IKEA be a likely target for cases of counterfeit. These instances are resulting in China the world's second largest economy (BBC, 2011), has been ranked low on an international corruption scale (Transparency, 2010).

But openness in both short term and long term is difficult to manage. Open innovation by Chesbrough reviewed in theoretical framework chapter, introduces different principles on how to open up. Some of these principles can exemplify how openness will underpin firm objectives.

Since Me-Mover is an SME and recently start up, the accumulated knowledge is still limited and focused around its product. At time being, only two persons are involved in daily operations (Eliason, 2011).

These are CEO Jonas Eliasson and Jacob Hiob Thilo. CEO Jonas Eliasson is educated as an architect and has afterwards topped up with some managerial courses. He is the man behind the idea of the personal transporter and the firm vision. Jacob Hiob Thilo is the technician and holds an engineer education from the engineering college. He handles technical creation of the personal transporter. Therefore the motive power and visions of these two are seen as the very foundation of the firm.

Particularly one open innovation principle will help to gather more knowledge. *"Not all of the smart people work for us so we must find and tap into the knowledge and expertise of bright individuals outside our company"* (Chesbrough, 2003, p.38). User driven innovation is the firm's direction for crossing its boundaries. Accepting users as valuable contributors in innovation collaboration is a must if the firm is going to allow an inflow of ideas originating from them.

But the hurdle is how to tap into that knowledge. Me-Mover must have a well considered strategy, containing problems that need outside located knowledge and incentives for outsiders to reveal it. Furthermore openness plays a decisive role when it comes to posting challenges in a crowd. It is absolutely necessary when establishing an online community with interaction. All the approaches above are ways of finding and tapping external knowledge. Acknowledging that people with the right talent sometimes are located outside is fundamental for these approaches.

Brabham's crowdsourcing theory backs Chesbrough's statement about external located knowledge up. "*Thus, we can assume that differing worldviews might produce differing solutions to a problem, some of which might be superior solutions because the ideas might consider the unique needs of diverse constituencies*" (Brabham, 2008, p.86). Here Brabham states that solutions to a problem and diversity of perception are interlinked. At present only two active team members makes up the knowledge base of the firm. Hereby idea generation and the ability to produce solutions are limited to these two. Opening up will give access to more diversed worldview, and information belonging to it is increasing the chances of solving problems.

When only these two persons are directly involved in daily operations, the level of manpower and time available to think creatively is not high. To avoid running into a dead-end while trying to make active movement attractive, is another incentive for Me-Mover to embrace external ideas. "*If we make the best use of internal and external ideas, we will win*" (Chesbrough, 2003, p.38). To draw upon external sources when developing products and marketing material is within the spirit of open innovation. The possibility of user involvement in firm challenges and simultaneously tapping knowledge from the interaction is the future plan.

Making use of external ideas can sometimes prevent the firm spends resources in "reinventing the wheel". It is likely in some cases that a user holds an idea ready to be incorporated to solve an internal innovation problem. Here open innovation thinking will allow the inflow of that idea, instead of the firm allocates resources to solve it in-house.

Realising that users sometimes holds key information to innovation problems is one issue. Another is the attitude towards this information. *"We don't have to originate the research in order to profit from it"* (Chesbrough, 2003, p.38). Here Chesbrough explains the right attitude towards external ideas. If Me-Mover should have a chance to be successful with them, it must treat them as if the idea originates from in-house research.

But this is not always the attitude when facing external ideas. Me-Mover should pay notice to the "not-invented-syndrome"; *"The not-invented-here problem, in which an organisation fails to see the potential in a new idea, or decides that it does not fit current pattern of business"* (Tidd & Bessant, 2009, p.101). Meaning there is chance to reject even the best ideas, because they originates from external sources. Sometimes an associate lacks to see the full potential of the idea at hand or simply misunderstands the context. Turning down good ideas is often equal to loss of potential revenue. Rejecting ideas can also deplete relation to the user submitting this idea. But more critical is it when the associate neither engages in nor pushes good ideas forward, because they are not gaining credit for creation of it. In this case the professional environment inside the firm might be hostile towards ideas submitted by users likely to be hobbyists.

According to CEO Eliason they are not afraid of throwing out projects that originates from internal work and knowledge, and replace them with outside ideas taken in (Eliason, 2011). This should be interpreted as the "not-invented-syndrome" plays an unimportant role. But this statement is given ex-ante user driven innovation and collection of user generated ideas.

The firm's vision is to commercialise good ideas regardless of their source which openness underpins. Focusing their activities in the primary area called commercialising innovation Me-Mover is classified as an innovation marketer (Chesbrough, 2003).
"To do so, marketers focus on developing a deep understanding of the current market and potential needs in the market and this helps them to identify which outside ideas to bring in-house" (Chesbrough, 2003). The firm is recognised by its vision of leveraging users in problem solving. Hereby Me-Mover is getting in depth market understanding and bringing in outside ideas via user involvement. These ideas can either be commercialised right away, or altered to suit market needs spot on.

4.2 Sub Conclusion of Openness

The findings done by observing Me-Mover, aligned with Chesbrough's definition of open innovation can provide a clear answer to why openness has significant importance. Me-Mover's knowledge is limited, and the firm must accept sometimes the right solution is located outside its boundaries. Accepting organisational limitations and not allocate more capital to the innovation project can be a tough choice. Open innovation suggests to leverage sources of knowledge from the outside. Making good use of both internal and external ideas will create a more competitive organisation. Me-Mover should act as an innovation marketer, where the focus is commercialisation of good ideas regardless of source.

Open innovation thinking provide answer to the sub question; *why is openness essential in this case?*. But before open innovation based on user involvement can be initiated, Me-Mover must have the right strategic setup. The next part of the analysis will investigate this field.

4.3 Strategic Posture

All functions at Me-Mover are currently placed in-house. The introduction chapter shows that Me-Mover's vision is to innovate in collaboration with its users. Open strategy by Chesbrough and Appleyard can analyse how a new strategic setup with relocation of internal value creating projects to an external location among users can look.

When open strategy illustrates different locations of value capturing and value creation are needed. Collaboration management by Pisano and Verganti enhances Me-Mover's strategic posture towards creation of innovation in external locations. Together with the empirical material these theories can provide analysis and answer to the sub research question; *which strategic posture and collaboration do external value creating sources require?*.

4.3.1 Open Strategic Setup

Desk research reveals Me-Mover's mission. *"Our mission is to deliver sound, fun and functional products that makes active mobility the first choice when moving"* (Me-Mover, 2011). The firm believes that the personal transporter is a part of this mission but only in a contemporary world. Because this mission builds on a not yet executed future vision. Interviewing CEO Eliason reveals their clear intension about user involvement strategy in business processes (Eliason, 2011). CEO Eliason's vision makes it clear that future product will emanate from collaboration with user. Therefore some value creating processes will have to be located externally among those users.

User based involvement in establishment of a whole "active living" product assortment surrounding the personal transporter. "*So there will be versions of the Me-Mover City and accessories such as urban active clothing*" (Eliason, 2011). The personal transporter is set to spearhead sales and create brand awareness. Then urban active clothing acts a smart add-on that creates coherence when using the personal transporter. These are novel developments for the Me-Mover team.

"If we are to make strategic sense of innovation communities, ecosystems, networks, and their implications for competitive advantage, we propose that a new approach to strategy – open strategy - is need" (Chesbrough & Appleyard, 2007, p.73). The statement empathises Me-Mover's strategic posture must underpin their new community innovation approach. Given the firm's vision which is users contributing with solutions to innovation problems, it must allow and facilitate community-driven value creation.
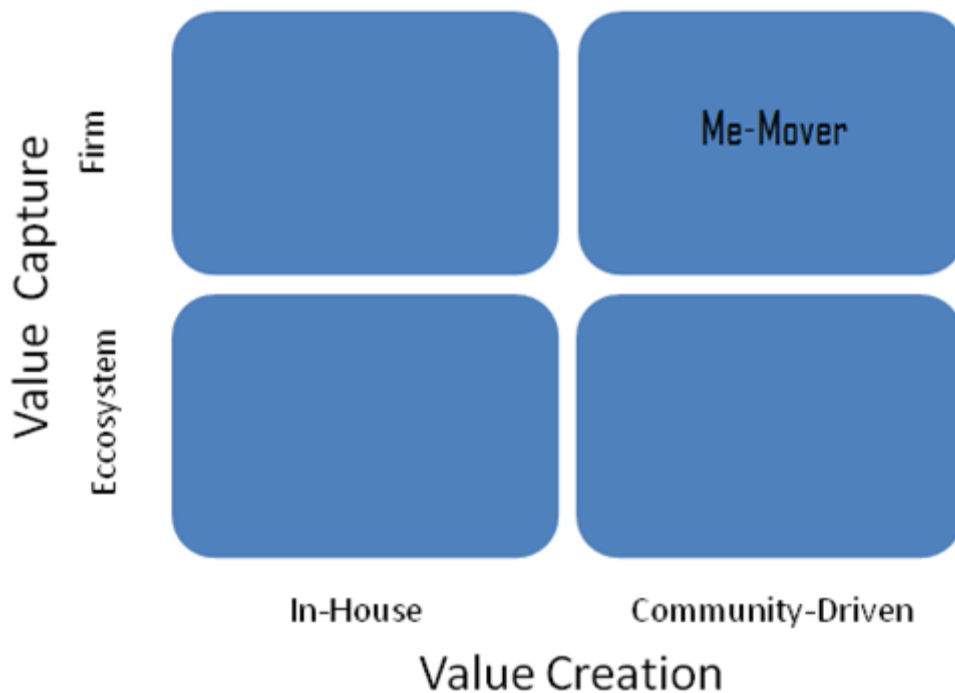
Figure 2

The figure shows Me-Mover's strategic posture towards value creation and value capturing.

Open strategy is about balancing two determinants value creation and value capturing (Chesbrough & Appleyard, 2007). But it is complicated part to balance the two determinants. Persuading the ecosystem to participate in innovation processes, but keep enough of internal value capturing to sustain as a business.

Value creation implies the decision about internal or external location. The empirical material reveals that Me-Mover wants external value creation in some projects. These projects are mainly product development and creation of marketing material. External value creation is in this case equal to user contribution. *"We are also aiming at establishing and supporting a forum, with its own initiative and own feedback in order to create a sparkling forum where individuals can exchange ideas"* (Eliason, 2011). An internet forum is one way of facilitating contribution of external sources. Another way Me-Mover imagines is a sort of workshop with their users. *"Yes, for instance by having a point system, where an person can gather point and hereby earn an invitation to some innovation camps"* (Eliason, 2011).

Before reaching external value creation with this method, users must gather points to participate in a camp. Establishing a functional user community requires good will amongst potential users.

To investigate the attitude towards participating in such communities, gathering of empirical material via an online survey has been done.

Would you like to join such an online community

12

45

Yes
No
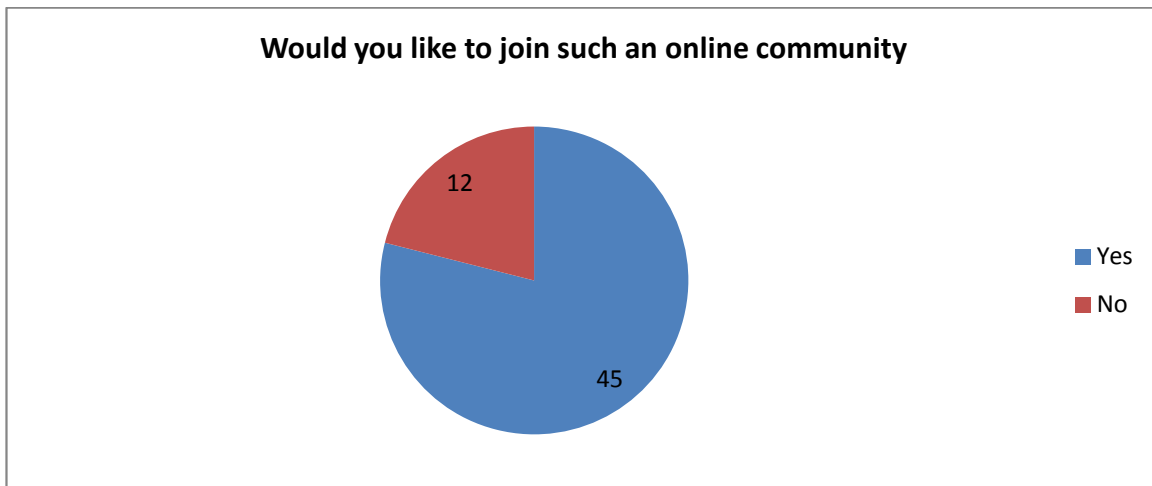
The chart above shows the number of respondents that would like to join a Me-Mover hosted online community. The total population is 57 respondents.

The figure above shows respondents' willingness to be a part of a firm hosted community. The tendency is that far most users have interest in joining than not to be a part of it. Some 45 respondents will like to join according to the online survey. Due to the number of respondents there are some statistically uncertainties, but the tendency is positive for the firm. Statistically uncertainty arises because not enough respondents have answered the online questionnaire. Therefore the number of respondents is not statistically representative for the latent population.

Establishing an online community is one thing, another thing is which actions it has to offer. CEO Eliason made it clear that he wants the community to take initiatives on its own, and to exchange ideas in between users and with the firm. To facilitate this it requires different functions must be available. Because meeting and exchanging information must be swift before users have enough freedom to take initiative. In the online survey more empirical material has been gathered to point out which tools respondents' request of a forum.

What activities do you expect of this online community?

- User driven Debate / Knowledge forum — 15
- Knowledge forum with regular interaction from Me-Mover associates — 29
- A news feed — 24
- Scheme to rate new innovations or marketing material — 20
- Connectivity to your Facebook/Twitter account — 11
- An opportunity for a closed forum/debate between you and a Me-Mover associates — 12
- Other (please specify) — 3

Chart 2

The chart above shows which activities respondents expect of a Me-Mover hosted online community. The respondents are allowed to answer twice. The population of 57 respondents gives 114 answers.

The respondents want a variety of activities in the online community. Most important activity seems to be a knowledge debate forum with users and associates from Me-Mover. Users wish a closed debate forum with the opportunity to be on single hand with a Me-Mover associate. But they also wish debate in a forum with broad participation and regularly interaction from Me-Mover. Add-ons like news feed and connectivity to social medias are also something users requests. "*Product tests, a forum for improving/modding the product*" (Respondent1, 2011), a quote from a respondents that further backs up the request for a forum with variety and vibe. All these features underline how important building up a community for innovation is when going from an internal value creation to depending on external sources.

Innovation camps where points are needed to participate and a closed debate forum online are two methods reserved for loyal users those with passion for the brand. Because collection of points to get access to an innovation camp and to participate regularly in an online forum is time consuming.

Investing one's own time in solving problems for Me-Mover without a great reward is act of passion. Moving external value creation out among brand loyal members is not always going to end in successful solutions. In reality the right knowledge to solve an innovation problem might not be accumulated in an individual who seeks community life. High diversity of users is needed, if they should be able to contribute to both incremental and radical change. So an approach to reach these is a necessity. How to reach these unknown potential solvers will be analysed later via application of crowdsourcing theory.

The other determinate from open strategy is value capturing. The decision of who gets to capture value from the innovation. Me-Mover will have to hold on to the major part of value capturing, in order to sustain their business. But as part of the persuasion of users the firm is ready to offer a piece of it to the users. CEO Eliason illustrates this in an interview, we have defined three different types; the technician, the networker and the salesman as user types. First of all the technician and the networker is driven by recognition and the fun of solving a challenge. The salesmen are also driven a bit by these, but also the opportunity to make some money of course they cannot make a billion on it (Eliason, 2011). The prize award or recognition that Me-Mover is prepared to offer users, can be compared to a merely salary like ordinary employees receives. The decisive amount of value capturing will be kept at the firm.

An organisational innovation like this is resource consuming. Currently Me-Mover is struggling to gather resources for the next phase. Key resources the firm needs are man power and capital. *"Well, it comes in steps. We have the resources required to plan and launch it, but it will of course require a lot of man power to operate this system and we simply do not have it right now"* (Eliason, 2011). CEO Eliason assesses that they hold enough resources for planning and starting up, but the next steps with dedicated customer interaction is current unaffordable. This makes the value capturing determinate even more important. The right to commercialise innovations must be kept on Me-Mover's hands, if they are to succeed and sustain as a business.

With the decision about the overall strategic posture done, it is now time to look into which collaboration strategies that suits the approach.

4.3.2 Collaboration Management

"The new leaders in innovation will be those who figure out the best way to leverage a network of outsiders" (Pisano & Verganti, 2008, p.78). Pisano and Verganti propose that right collaboration in the network is essential for achieving innovations. It is not enough to have a network or an innovation community. Organising collaboration in this network is equally important.

Pisano and Verganti propose four different ways to collaborate; elite circle, innovation mall, innovation community and consortium (Pisano & Verganti, 2008). In general they differ from each other by having open or closed participation, and managed either hierarchical or flat.
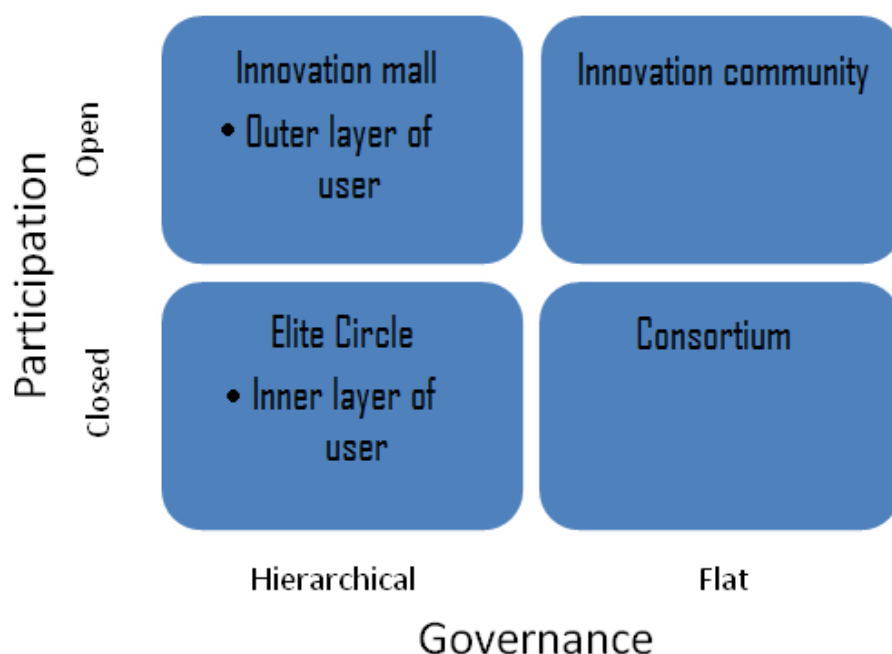
Figure 3

The figure shows which collaboration mode Me-Mover should use when collaboration with the different layers of users.

The case study reveals Me-Mover's intension about collaborative innovation with their users. Moreover it reveals the firm have not decided on collaboration modes yet. *"But the other side to it which have all sorts of challenges is how we are going to arrange them, and we have not yet fund a model for this"* (Eliason, 2011). Pisano and Verganti's collaboration management theory will be used to analyse which modes of collaboration will suit in Me-Mover's case.

Having determined external value creation via open strategy is not enough collaboration management must be conducted to insure competitiveness. Alignment of collaboration and strategy is here important. A firm must understand its processes of building and capturing value, to choose the appropriate strategy (Pisano & Verganti, 2008). Me-Mover's CEO Eliason expresses the vision of user involvement; *"I think it will be a really great idea like the Ferrari case you showed me, to make a list with the different products and then tell the users this is the base and you are welcome to propose suggestions"* (Eliason, 2011). This expression shows that the important part for Me-Mover is to manage the collaboration in a direction that sparkle creativity, and generates solutions to their exact challenges. To make sure the investment of resources is not going to waste or inefficiency causing slack.

Therefore a hierarchical structure of the collaboration is needed with Me-Mover at the top to set directions and innovation tasks. It leaves out the innovation community and consortium, due to in this case inappropriate flat governance. The essence of the last two modes of collaboration innovation mall and elite circle will applied to manage the different layers of users that surround Me-Mover.

The different layers are as before mentioned, an inner layer of selected individuals and an outer layer consisting of a crowd with arms length relation to the firm.

To manage the inner layer of users the principles from elite circle will fit. Selective participation is for the few that shows extra ordinary talent and willingness to help Me-Mover solve challenges. Removing arms length relation and their full potential can be explored and exploited by the firm and themselves.

The closed elite circle participation can opposite the innovation mall create an environment that underpins development of new concepts. *"For example, the development of radically new product concepts or product architectures is an integral task that has to be embraced in its entirety. In such cases, closed modes that provide an environment where collaborators can closely interact must be employed"* (Pisano & Verganti, 2008, p.82). Due to this radically new development projects are best placed here, and managed with a closed principle. In this case such projects could be the ones concerning new variants of the personal transporter or the belonging clothing assortment, which CEO Eliason expresses his vision about.

Providing entirety is one feature that underpins Me-Mover's user collaboration, another one is protectionism. The closed collaboration offers more protection of intellectually property rights. Because it is a selective participation and only individuals trustworthy should be invited. Trustworthy users reduce the chance of leakage of valuable information, and at the same time the risk of opportunistic behaviour is decreasing.

Leakage of information is important in two matters. First, when the firm is applying for patents. According to the European Patent Office an invention is only patentable if it fulfils the requirements of novelty and non-prejudicial disclosure (European Patent Office, 2011). It means the invention has to be unknown to the general public before it is patentable. Leakage to the public of inventions Me-Mover wants to patent can damage this. European patenting rules are undisputable because of Me-Mover's internationalisation plans are to compete on major European markets.

Second, potential competitors might get useful insights if valuable information is careless managed. Working with trustworthy users with passion for the brand reduces the chance of disclosure of information preventing a patent. Displacement of information might lead to competitors getting insights. Such insights might lead to improved competitiveness and make the market more difficult for the firm to operate in.

To manage the outer layer of users which have arms length relation to the firm, innovation mall principles are applicable. This mode of collaboration is a true crowdsourcing approach. The idea behind is when firms post problems, and then lets anyone propose solutions (Pisano & Verganti, 2008). The firm due to its place in the top of the hierarchy define some tasks they need to solve, and via external posting let outsiders take up the task.

Among other things it is appropriate when, *"you need ideas from many parties, and the best ideas may come from unexpected sources"* (Pisano & Verganti, 2008, p.81). Open participation gives anyone access, and hereby Me-Mover is not in danger of "judging the book by its cover". Meaning that even the most unlikely source, might hold a key to solve the problem at hand. Overall innovation mall principles suit a crowdsourcing approach. Due to these strong linkages between them it is applicable to use.

Openness towards users is essential in Me-Mover's case. Uncomplicated access to a network is an absolute success driver, to ease participation for the members. The crowdsourcing approach must be understandable and accessible for the crowd.

But openness has its challenges. Open collaboration works best when problems can be divided in minor parts. But for radically new product concepts, entirety of the problem must be available (Pisano & Verganti, 2008). Me-Mover must be aware of this, and distribute challenges between inner and outer layer of users in correspondence to it. The problem can be avoided by placing projects concerning new products in the elite circle collaboration mode.

The collaboration is hierarchical. The hierarchical form means that a specific organisation gets to choose both problem definition and solution (Pisano & Verganti, 2008). This fit the firm because it wants full focus on its defined challenges, to insure solutions can be feasible.

A controversy can appear, if Me-Mover through true crowdsourcing spirit lets its' users vote for solutions. This will be a decomposition of the hierarchical structure. Because then the firm gives up its authority to choose solutions. Furthermore there is a chance that none suitable solutions will be chosen. This will disrupt the innovation management. A way of dealing with this is to do a pre-screening of the gathered solutions, insuring that whatever solution is voted for by the crowd it will suit the firm.

In the end Pisano and Verganti, like crowdsourcing theory, identify both financial and nonfinancial incentives as crucial for user involvement (Pisano & Verganti, 2008). This underlines the utmost importance to offer incentives to user. Offering them something in return for their work is close to the only way of attracting them.

4.4 Sub Conclusion of Strategic Posture

To be successful with user and crowd driven innovation, Me-Mover's open strategy posture must contain clear definition of external value creation and internal capturing of such. Traditional strategic setup concerning cost base or differentiation has to be of secondary importance.

Building up an innovation community and attraction individuals to participate must be of primary importance. The key is to not lose sight of commercialisation to insure sustainability as a business.

As Pisano and Verganti stresses strategy and collaboration must be aligned. Having decided on external value creation strategy, Me-Mover must also have the right collaboration mode in place to achieve success. The basis of the collaboration strategies will fit the inner and outer layer of users surrounding the firm. Me-Mover will have to strive for hierarchal governance. This is only way to control the direction of the external located value creating source. Use of open and closed collaboration will be helpful to leverage users placed in different layers. Definition of which development tasks suits either open or closed collaboration will have to be clear.

Al together this part of the analysis answers the sub research question of; *which strategic posture and collaboration do external value creating sources require?*. With this sub research question answered the focus will shift to different approaches on how to leverage users.

4.5 Leveraging the Inner Layer Users

The following part will analyse how the inner layer of users can be leveraged and involved in business activities. It will present how customer innovation with a tool kit and how lead user method as approaches to integrate users in product development at Me-Mover. These are processes of leveraging users or customers with a closer relation to the firm. It will be a part of the answer to the sub research question; *how can the firm's users be leveraged?*
Subsequently the last part of the answer to the sub question with focus in the outer layer of users will be presented. Separation of the sub research question is necessary, because leveraging different layers of users causes fundamental differences in collaboration approaches.

4.5.1 User Driven Innovation with Tool Kit

The part is build up around Thomke and von Hippel's five step process of customer innovation. The process contains the following steps; develop a user-friendly tool kit for customers, increase the flexibility of your production processes, carefully select the first customer to use the tool kit, evolve your tool kit continually and rapidly to satisfy your leading-edge customers and adapt your business practices accordingly (Thomke & von Hippel, 2002)

Before this approach can take off, customers and users must be equipped with a tool kit to ease interaction between them and the firm. Equipped with a tool kit, users are one step nearer to the core and closer collaboration with the firm. Hereby Me-Mover can leverage their users, and exploit the opportunity these provide. The tool kit should be freely available for users after a trail phase, but only to those getting clearance from Me-Mover.

As reviewed in the theoretical framework chapter, customer driven innovation is about actively involving customers in product development phases. Organising it like the elite circle collaboration from Pisano and Verganti is beneficial. It is because hierarchical structure allows Me-Mover to deicide direction and solutions, and to create a closed environment where user can get the entirety of the problem at hand.

The selected and reviewed theory from Thomke and von Hippel points out it makes sense to initiate customer driven innovation when, *"you and your customers need many iterations before you find a solution"* (Thomke & von Hippel, 2002, p.77). So to reduce the number of iterations in product development and to face new challenges, it makes sense to search outside for relevant knowledge. The users make a valuable source of knowledge, and sometimes a key reduce iterations.

Often users hold tacit knowledge which is difficult to acquire for firms. This will result in even more iterations before a products fit user demand. A term of this is sticky information. *"Often the information used is technical problem solving is costly to acquire, transfer, and use in a new location-is, in our terms, sticky"* (von Hippel, 1994, p.429). Here user driven innovation via a tool kit is advantageous. A tool kit can create a space, where the user himself puts his imagination and knowledge at work.

Then the firm do not have to invest resources in acquiring information and then decode it, before using it in development of new products. But can more simply gather the outputs created by the user's interaction with the tool kit.

Would you make use of a tool kit to work on solutions if such was provided by Me-Mover?

20

37

- Yes
- No
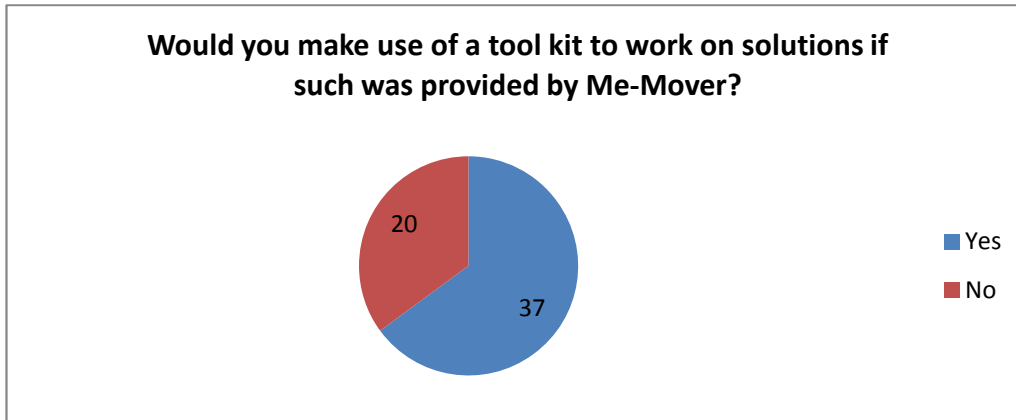
Chart 3

The chart above shows the number of respondents that are willing to use a tool kit from Me-Mover. The total population is 57 respondents.

Investigating potential user trends indicates that a tool kit approach has acceptance. The empirical data shows 37 respondents have interest in using a tool kit if available and 20 rejected the idea. This indicates that a tool kit offered to the users will be used to alter product setups.

Would a provided toolkit encourage you to work closer with Me-Mover?

20

37

- Yes
- No
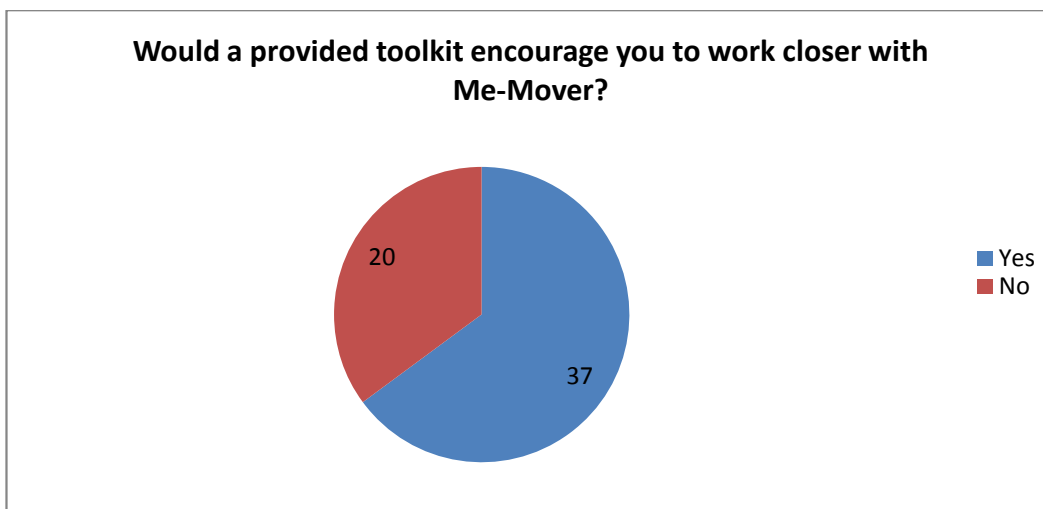
Chart 4

The chart above shows the number of respondents encouraged to work closer with Me-Mover, if they are handed a tool kit to do so. The total population is 57 respondents.

One thing is interest in working with a tool kit another is how it might alter the relation to the firm. It seems that a tool kit is a way to strengthen the relation with users. The online survey shows that

the same 37 respondents are encouraged to work closer with Me-Mover, if they have access to tool kit. The 37 are supposed to be the same that find the idea of a tool kit interesting at first.

With the benefits of a tool kit and the result from the online survey so clear, it is without doubt worthwhile for Me-Mover to include in a user involvement strategy. Thomke and von Hippel's theoretical framework in five steps is applied as the overall structure to analyse Me-Mover's opportunity of user driven innovation with a tool kit.

4.5.1 Step 1 – Development of a User Friendly Tool Kit

The first step is to develop a user friendly tool kit (Thomke & von Hippel, 2002, p.79). The tool kit should be intuitive so users do not need spend many hours in getting familiar with it. The task is to develop the tools users need to solve the knowledge intensive tasks. But developing a tool kit is not simple. It must provide the user with four capabilities; designing should be a matter of learning by doing, it must be easy to start using, contain a library of older designs to search through and it must present the limitations of manufacturing the processes (Thomke & von Hippel, 2002). To achieve such capabilities the tool it can contain different tools.

What do you demand that such tool kit includes?

- Designing software
- Sketches of the problem
- Real life-size objects
- Marketing material for sales demonstrations
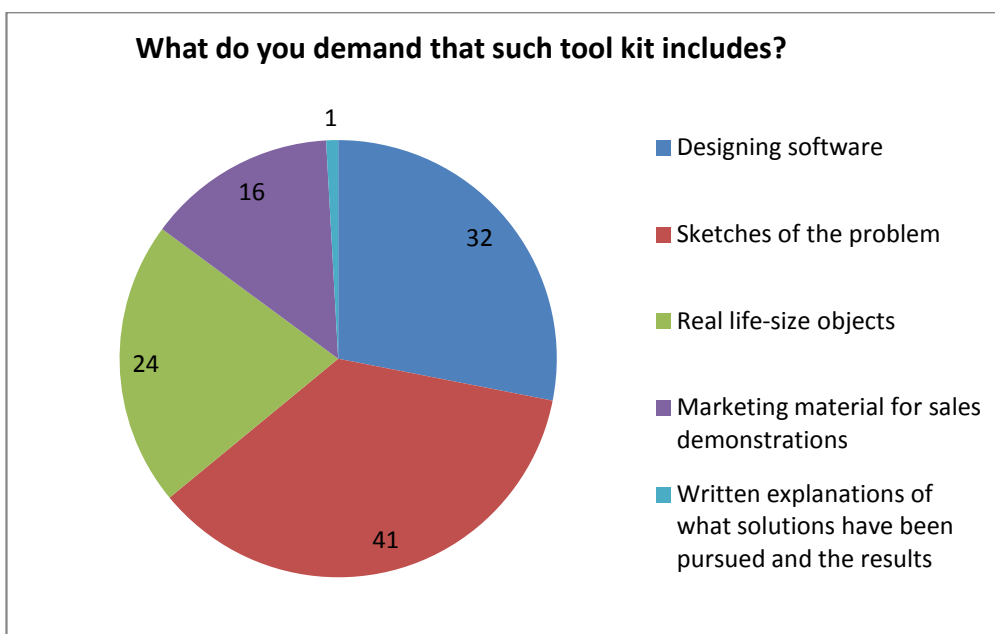- Written explanations of what solutions have been pursued and the results

Chart 5

The chart above shows the content which the 57 respondents demand of a tool kit. Respondents are allowed to answer twice, so in total it gives 114 answers.

The tools being proposed are; designing software, sketches of the problem, real life-size objects and marketing material for sales demonstrations. Creating software that allows users to design objects will be a significantly advantage. Distribution of software can happen rapidly online. Compatibility with manufacturing processes allows swiftly transfer of user designs into relevant firm operations.

But sometimes depending on software will not enhance user driven innovation. *"When the simulation technology lacks the desired accuracy, it can be supplemented with rapid prototyping methods"* (Thomke & von Hippel, 2002, p.77). Results from the online survey also show that respondents prefer sketches of the problem over design software, to be part of the tool kit. Writing sketches in non-technical language will make them easier to understand and use. Providing the user with multiple sketches both older and newer, will enable him to go through them and get inspiration.

Scoring third highest are real life-size objects, enabling the user to work with the problem at first hand. Creation of software is more expensive than sketches and life-size objects. Because programming software is a job requiring external help from IT experts. Furthermore sketches and life-size objects have been made as a part of the manufacturing. These can without major difficulties be made available for users.

So in Me-Mover's case with constrained resources, the best value for money would be to give priority to sketches and life-size objectives. This are enabling users to rapid construct proto types of their ideas and fulfils Thomke and von Hippel's requirements to a tool kit. Writing sketches in non-technical language will make them easier to understand and use. Providing the user with multiple sketches both older and newer, will enable him to go through them and get understanding and inspiration. Learning by doing is possible for the user with life-size objects, because he quickly can test if his solution works or not. Afterwards adjustments can be made by the user and this starts his learning based on doing. The only problem is to incorporate the firm's limitations of manufacturing process. Me-Mover must make sure to provide users with these, in order to get solutions which are feasible to manufacture. In the beginning when simulation software with incorporated manufacturing limits is unfeasible, the firm must include a description of these limits with is physical tool kit.

4.5.3 Step 2 – Increase flexibility of Manufacturing

Thomke & von Hippel's second step is to increase the flexibility of production processes. As mentioned earlier the firm is working with Chinese manufactures. Not having controlled in-house production will without a doubt make the manufacturing process more rigid. An agreement with a manufacture can be difficult to chance. Furthermore the reputation of Chinese producers causes Me-Mover to be cautious with its information outflow. All this complicates flexibility during manufacturing processes.

The long term objectives disclosed by Me-Mover's CEO Eliason reveals high volume manufacturing. *"Our goal is to sell some hundred to three hundred thousand Me-Movers per year, and that is within six to seven years time in Europe actually"* (Eliason, 2011).

When it is not likely to source in a production of that volume due to resources and facility required, rapid or major changes in product design will be a hurdle to implement. Not even a final product assembly in-house can cover the ambitious sales target. Continuously product updates will require an adjustable contract with a manufacture. Taking in additional suppliers to manufacture innovative ideas, will increase flexibility some and might be the only way in the beginning.

4.5.4 Step 3 – Select the First Users to Receive the Tool Kit:

Thomke & von Hippel's third step is a careful selection of first users to try the tool kit. Me-Mover's user driven innovation tool kit should not be available for all. Since there are cost involved with distribution and creation of it, the first users of it should be ones capable and willing to provide feedback. If Me-Mover decides to include blueprints in the tool kit, valuable information about design will be disclosed. Users whom are not loyal nor have a strong relation to the brand can act opportunistic on basis of this. Simply carelessness could result in the information is ending up on a competitors table. Even though the majority of users back up the idea of a tool kit, costs and risk of leakage demands careful selection.

The firm should try to select loyal users that are most likely to stick with during systems faults and improvement of such. This will at first undoubted result in a monitoring phase of users and their behaviour.

4.5.5 Step 4 – Evolve the Tool Kit

Thomke & von Hippel's fourth step is continuously development of the tool kit. To start with something rough, like release of sketches or life-size parts is a good beginning. It can be done very quickly running at low costs, and still offer enough value to entice user experimentation. Distribution among users with talents will result in the user bumping into edge of the tool kit capacity, and demand for more alternatives. Actually this has already happen during collection of the empirical material. "*Written explanations of what solutions have been pursued and the results*" (Respondent2, 2011). This indicates that interacting with users through a tool kit causes natural requests for updates of it.

So updating the tool kit with new designs could be fairly easy. Developing new features does not require extra ordinary skills or attention when sparring with users.

The next major evolvement could with good reason computer simulation. The empirical material shows that second most users demand some designing software. Software is quick to spread around to global users, and designs could easily be transferred back to Me-Mover. But it requires a considerable investment to start compared to distribution of sketches. So for this step to make sense the environment and the gains from a tool kit should be clear. It should be seen as a second step after a start up phase with sketches and objects, and natural evolvement emanating from user interaction.

4.5.6 Step 5 – Adaptation of Business Practices:

Thomke & von Hippel's fifth and last step is adapting of business practices. Me-Mover must accept users as equal partners in innovation processes in order to profit from it. The firm's CEO Eliason statement about open innovation and embracement of user solutions must come into force. Adjusting the manufacturing process to simple changes, for instance offering user a new developed product colour is a way to adapt to this approach.

One way of profiting from user driven innovation is when a change suits the general market, and can be incorporated in the whole product line. It could be a change in resources needed for manufacturing or a product update offering customers enhanced value.

Another way might mean altering of the business model. Alter the business model to make it economical feasible to work low volume customers (Thomke & von Hippel, 2002). Due to Me-Mover's more rigid outsourced manufacturing it is expensive to produce in small volumes. Especially if the change desired is not covered by the initial agreement with the manufacture. To get around this issue Me-Mover can pay attention to the American firm Threadless' business model. It provides a platform for users to make t-shirt designs on and submit them to the firm. Members then vote for the best designs which are printed and sold to the members (Threadless, 2011). Incorporation of a similar approach will give Me-Mover an idea of how large the demand for this change is. If the demand for it in comparison with manufacturing costs is economical feasible, then production should be started.

4.5.7 Lead User Method

When establishing the user driven innovation approach, Me-Mover will most likely observe that some users are more engaged than others. They are more active and simply provide superior ideas than others. Trying to facilitate a closer collaboration with them is a way to leverage them. This could be done through lead user method. The model consists of four steps; start of the lead user process, identification of needs and trends, identification of lead users and concept design (Lüthje & Herstatt, 2004).

Users behind extraordinary ideas can be marked as lead users. "*Lead Users face new needs of the market and do so significantly earlier than the majority of the customers in the market segment*" (Lüthje & Herstatt, 2004, p.556). This definition of lead users makes them valuable for Me-Mover. Because navigating towards future market needs can be based on them. Listing to them and as well as working close with them, will enable Me-Mover to leap over pitfalls. If the firm takes bearing after solving problems pointed out by them, it will steer towards sales success and avoid products which are unable to meet market demand.

Making profit by accurate matching future demands and solutions is one method. But it does not mean that beta products are out of the question. *"We will also sell beta products, where we say it is a bet, it will break down and we want you to help us fix it"* (Eliason, 2011).

Making room for beta products is a smart way to make money on the way to a final version of the product. Selling not finalised products and encouraging customers to take part in the solutions, is an approach to mix generation of revenue and customer involvement.

But there is a risk of brand problems. First, selling unfinished products could deplete potential customers' perception of the brand and its' quality. A price of 1000 Euros (Me-Mover, 2011) is considered to be a significant amount of the average person's disposable income in Western Europe. Especially if it is a not fully functional product doomed to break down. If the quality is not high enough customers might revolt which damages brand reputation. Second, it requires a special type of customer to see the value in buying defect products, and then updating it for the benefit of the firm. It is not likely that many customers have this characteristic, and hereby this potential revenue is limited.

To work active with lead users should be a part of the involvement strategy. Here the lead user method by Lüthje and Herstatt can be useful. The method is applied as a tool to identify and integrate lead users into concrete innovation projects. As described it is build up around four main steps. Lead user method is a closed collaboration with users selected because of their talent and knowledge. It is inner layer users working with Me-Mover in a controlled environment.

4.5.8 Step 1 – Start of the Lead User Method

The first step is starting the lead user process (Lüthje & Herstatt, 2004). Here specification of the search field and problem definition is important. Product development is the interesting search field for Me-Mover. *"At first the idea is testing of products, but the next thing we want users to come in and direct changes in the development"* (Eliason, 2011). CEO Eliason sees over time user involvement as far more than test driving of products. But as an actual source capable of changing products.

Collaboration management by Pisano and Verganti clarifies how development of new product concepts is best located in a closed environment. In line with this theory Me-Mover should place such tasks here. This will broaden the search into two fields; continuously development of the personal transporter along with creation of new products. The goals for them are improvements of the existing personal transporter and product concept generation for a product assortment.

Then formation of a team to handle the lead user process is necessary (Lüthje & Herstatt, 2004). Interdisciplinary and openness are important trades, to build up diversity of knowledge and minimise the "not-invented-here" syndrome. The application of lead user method is demanding, and is preferably run separate from organisational routines (Lüthje & Herstatt, 2004). Me-Mover must acknowledge these facts, but they are a struggle to follow.

Currently the team only consists of two. Transferring them from daily operations and into the group behind lead users will weaken the firm. Furthermore great interdisciplinary and diversity are difficult to reach with a minimal team. Described earlier resources are scarce, and CEO Eliason states they only hold enough to plan the projects. Operating the lead user method will require more man power and financial means. It results in the lengthy process of establishing a lead user collaboration, will become even more lengthy due to postponing of a fully operational level.

4.5.9 Step 2 – Identification of Relevant Needs and Trends

When the two search fields from step one are decided it is time for the next step. The second step is identification of needs and trends (Lüthje & Herstatt, 2004). This step is important for scoping the two search fields from step one. While Me-Mover is situated in urban movement market, their search field is product development within this market. Product needs and trends provide a map to where lead users most likely are located within the two fields. Identification of possible future needs and trends includes a variety of knowledge fields. Therefore it requires a broad search. Broad searches reduce the risk of overlooking an important trend, but it less efficient and consume more resources (Lüthje & Herstatt, 2004). Nevertheless a broad search is the only approach that underpins Me-Mover's goal of identifying and integrating talented users.

Sources of information in this search to build the identification upon can be both primary and secondary. Access and interpretation of secondary information can simple. For instance blogs[4] and online forums[5] are fairly easy scanned for useful data for identification of an upcoming trend. Data here often originates from users with a passion for exactly this area.

But the complexity arises with primary data, which are interviews with market and technology expects together with users. Due to incremental product development and development of new product concepts, it is unclear how many experts are needed to create a comprehensive overview of trends in the area. It is not sure that an expert of a given area is a Me-Mover user. The experts might be found in analogous markets or in a completely different line of industry. All this complicates interviewing those experts.

The step ends in selection of what is believed to be the most important trend or need in urban movement market. Because of the lead users' nature, their most likely location is on the forefront new need and trends.

4.5.10 Step 3 – Identification of Lead Users

Identification of lead users within the search fields (Lüthje & Herstatt, 2004) is the third step. Before identification of them can take place, the project team formed in step one must first determine indicators for measurement. Due to the previously definition of lead users, it is in their nature to stick out when the topic is future needs and trends. Consideration of this as an indicator is important. Because it might show a user that for once is more a lucky fortune teller than a consistent talented user. Another indicator could be user dissatisfaction. If a user perceives a mismatch between his needs and the product functionality he might be one step ahead of the contemporary market. A consequence could be that he already had worked on a solution (Lüthje & Herstatt, 2004).

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[4] http://www.trendhunter.com/trends/a-human-powered-scooter-xcelerator-hypersonic-red
[5] http://wackyboards.blogspot.com/

The reasoning is that behind a good idea or new demand for product functionality is a potential lead user. *"In agreement with earlier studies, we also find that innovative users are likely to be "lead users", an attribute that we assume to affect the quality of user innovation"* (Jeppesen & Frederiksen, 2006, p.45). An investigation from Jeppesen and Frederiksen backs up the linkage between innovative capabilities and potential lead user status.

Afterwards is a search for lead users based on the confirmed indicators and trends. Two distinct search methods from Lüthje and Herstatt are relevant in this case.

First, the screening approach which works like gold panning. *"This approach is based on a screening of a large sample of product users in order to test whether they show previously identified Lead User indicators"* (Lüthje & Herstatt, 2004, p.563). A filtering process will hopefully result in identification of one or more lead users. Moreover it is very applicable together with Me-Mover's vision of an online community. Here Me-Mover will have a pre-established base of existing users, where a filtering process easily can be incorporate to swiftly point out users with the right characteristics. This can be done by formulating some keywords, and then when used in the forum Me-Mover automatically gets a notification.

The second one is the networking approach. The approach is like playing golf, where every stroke takes you closer to the goal. In basic Me-Mover needs to conduct several interviews. During these asking the interviewee if he has experienced new needs and maybe do an effort to solve them, or if he know someone that shows this characteristic (Lüthje & Herstatt, 2004). By using the references the firm can stepwise get closer to the targeted lead user. It too is applicable in the online community, but requires more resources to set up the necessary interviews. It also depends on users to set aside time to participate, which is further complicated by the anticipated mix of international users. The advantage is that reference points from the interviews, might lead the firm into analogous fields where the similar obstacles are faced (Lüthje & Herstatt, 2004). Freeing Me-Mover's knowledge foundation or access to such from their own line of industry will be a significant advantage. Because in this scenario they will be able tap into broader and deeper understanding of the defined problem, which in the end will result in a more accurate solution.

4.5.11 Step 4 – Designing of Concepts Together with Lead Users

The last step of the lead user method is development of innovative concepts together with the target users. Integration of lead users can happen both on an individual level with single users or at workshop level with multiple users. Which of these two approaches are superior is yet unsure (Lüthje & Herstatt, 2004).

Hosting a workshop where all participants are brought together, will be a considerable investment of resources (Lüthje & Herstatt, 2004). Also the effort of identifying multiple lead users, will consume more resources. But the diversity of participants might create a better idea flow, resulting in accurate solutions and lesser time consumed. At present state Me-Mover is not yet geared for a massive resource consuming lead user integration.

On the other hand integration of single users has attributes that suits Me-Mover's initial lead users cooperation. Constrained resources and due to their international orientation a pool of lead users potentially scattered around the world, speaks for individual integration. This integration will be an extension of the debate forums in the online community. But can also take form as innovation camps, with personal meeting between firm and lead user.

Chart 6

The figure above shows how many respondents which finds the idea of a workshop hosted by Me-Mover interesting. The total population is 57 respondents.

A way to go around it is to analyse each innovation project and the identified lead users. The number of lead users and their location along with the complexity of the challenge are the determine drivers. To find out if the potential users are have interest in being integrated, empirical data has been collected. It reveals that the majority of users find the idea about a workshop with Me-Mover interesting. Some 45 out of 57 respondents will like to participate in one. Since no lead users have been indentified yet, the result is collected among all users.

Openness of lead users and Me-Mover is crucial, but might be difficult to establish. *"The users might not be willing to openly reveal their innovations to the manufactures"* (Lüthje & Herstatt, 2004, p.564). Before lead user cooperation can sparkle. Me-Mover must find a way that encourages these users to openly submit solutions or a fraction of knowledge that lead to such. But the research behind motivational factors has just started to evolve (Lüthje & Herstatt, 2004). The firm must be aware of the complexity. Individual compensation either public recognition or cash could be important. But empirical material collected by the online questionnaire shows that some respondents will participate for the fun of the challenge. Two respondents in the online survey answered; *"Fun and I could learn something"* (Respondent3, 2011) and *"In this way, I can grab a wonderful opportunity like this"* (Respondent4, 2011). This indicates intrinsic motivation might play a significantly role here.

Openness shown by Me-Mover is further essential. To get the best result selected lead users must have access to information that provides them with a fully understanding of the challenge. The danger of disclosure of valuable information will be reduced by close and controlled collaboration. The opportunity of patent protecting of innovative products is of importance. By managing this collaboration the chance of information leak that will cause patent prevention according to European Patent Office is minor.

4.6 Sub Conclusion of leveraging the Inner Layer of Users

User driven innovation with a tool kit holds many opportunities for Me-Mover. Through a closer collaboration with users, the tool kit can reduce iterations in product development and be the source of new concepts. This will result in lower development costs and potential new products creating revenue streams. The environment is also accepting a tool kit with the majority of users find it interesting to work with.

But problems lies in carrying the tool kit implementation out. Computer simulation software is expensive for an SME like Me-Mover. Furthermore flexibility is reduced due to a rigid outsourced manufacturing process and makes it difficult to incorporate user designs. Due to the cost of providing users with a tool kit not all users should be handed one. At least in the beginning it should only be available for a select few.

A select few is what lead user integration is about. Paying attention to lead users will be crucial. While Me-Mover look at user interaction via tool kit as vital source of information, lead users are even more valuable. Systematically integration of these will improve the result of user driven innovation processes. Lead users are talented users and therefore it is likely they can contribute even more than ordinary users. But search and integration practice is a trade-off between resources spend and the achievable result. Me-Mover must carefully go through all the steps to integrate a lead user. It is a lengthy process and therefore not a remedy for current innovation problems. Beginning with small steps in collaboration with the right users, can be a valuable and yet untapped source of knowledge for the firm.

This part of the analysis has with focus on the inner layers of users answered a part the sub research question; *how can the firm's users be leveraged?*. Now the focus will shift to the outer layer of user in order to deliver the final part of this sub research question.

4.7 Leveraging of the Outer Layer of Users

This part will analyse how crowdsourcing can be a method to leverage the outer layer of users. It will answer the last part of the sub research question; h*ow can the firm's users be leveraged?* It will apply the theory of crowdsourcing as a method of leveraging these users.

Crowdsourcing has earlier been described as, outsourcing of firm tasks to a large pool of unidentified individuals. These individuals are located in the firm's outer layer, because relation to them is weak and they can even be unknown until they submit a solution.
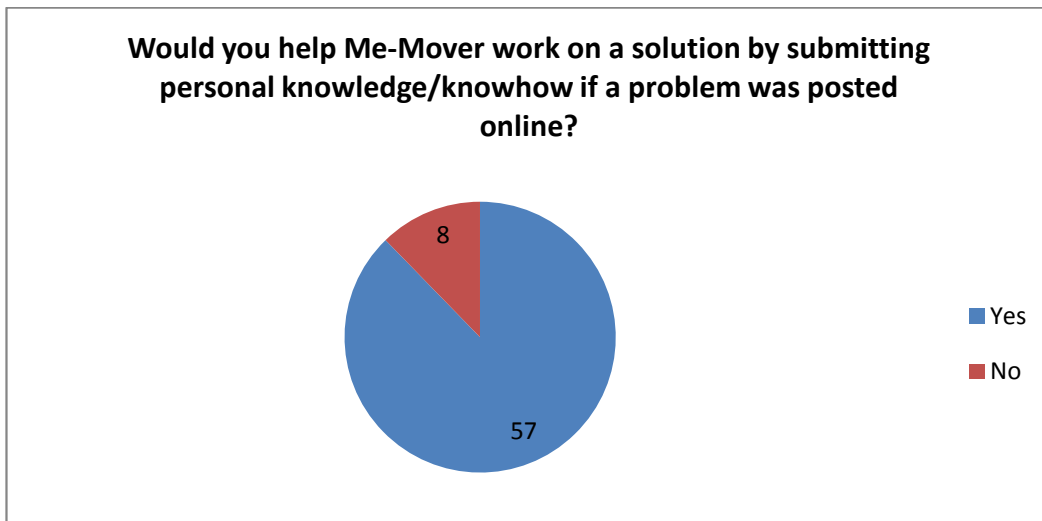
Chart 7

The chart shows the number of respondents which would help Me-Mover by submitting personal knowledge or knowhow. 57 respondents have answered yes to the question, 8 have answered no and 6 did not complete the questionnaire. The total population of this question 65.

The online survey shows 57 respondents are ready to help Me-Mover work on solution, if a problem was posted online. 8 respondents answered no this question. The number of respondents means that the result has some statistically uncertain, but the trend is strengthen Me-Mover's vision of user involvement.

First crowdsourcing of product development tasks will be analysed and secondly marketing material. The analysis is divided because the two tasks have major differences in the four steps of Jeppesen's crowdsourcing approach. Focusing on the two tasks will cause the steps to differ. Because the task at hand requires unique adaption to the crowd it targets and to the problem initially faced.

Which of these areas do you think you can contribute most to?

- Marketing/advertising
- Product development
- Sales Activities

11

29

17

Chart 8

The chart shows which business practices selected by Me-Mover for user involvement the respondents think they can contribute most to. The total population is 57 respondents.

One reason for the difference is that it involves individuals with different personality. Chart 8 shows that the respondents judge their field of expertise differently. The separation is done to investigate how potential users see themselves involved in Me-Mover's activities. Furthermore it is the selected activities the firm wants crowd involvement in. 29 respondents judge they can contribute most to product development. The strong representation of individuals in product development category suggests that a lot of knowledge is dispersed here. The strong representation here might have something to do with many people have a little inventor inside. *"I like to 'tinker' and IMPROVE!"* (Respondent5, 2011) and *"Technical solutions is what I like best"* (Respondent6, 2011). The quotes are some of the elaborations that users gave when asked why this field. It suggests that product development sounds interesting to many individuals. Exactly this could be undermining the result of the online survey. Because individuals might unconsciously answer the field they most like to participate in, instead of what expertise they actually possess.

Within the field of product development external empirical material shows a contradiction, between the chance of success solving and area of expertise. Lakhani et. al. (2007) made a research of scientific problems broadcast externally to a crowd. *"Our most counter-intuitive finding was the positive and significant impact of the self-assessed distance between the problem and the solver's field of expertise on the probability of creating a winning solution"* (Lakhani et al., 2007, p.12). This is a finding regarding the product development alone. To leverage users with different characteristics, the crowdsourcing approach still needs different setups hence the separation. Because like the Lakhani et. al. research individuals' self assessed area of expertise, might not have an effect of which problems they are able to solve.

After product development the online survey reveals 17 respondents judge they can contribute most to sales activities. This along with Me-Mover's wish of crowdsourcing of sales operations is conflicting with the purpose of the thesis. Sales operations do not produce a tangible solution to a problem. Therefore user involvement via the theories from the theoretical framework cannot be used in this case. But like the study from Lakhani et al. (2007), individuals with this self assessed expertise are likely to take up other challenges outside this field.

Chart 8 shows 11 respondents with the self assessed expertise field of marketing and advertising. These are likely to be willing to engage in problems with preparation of Me-Mover's marketing campaign. The crowd here is according to the online survey far less than the other two. The lower number of individuals responding to this field, might have something to do with it does not sound as challenging. *"By far the easiest area to assist with"* (Respondent7, 2011). This elaboration from a user illustrates the possibility that individuals see the field as a triviality or merely a get to us approach from Me-Mover.

4.7.1 Crowdsourcing of Product Development

This part of the analysis is build upon Howe and Brabham's crowdsourcing theory. But it will have Jeppesen's four step process definition of crowdsourcing as an overall managing approach. The four steps from Jeppesen are; problem definition, broadcasting of problem, attract solutions and select solutions. These are applied because they offer systematically approach to crowdsourcing. They will analyse how crowdsourcing can be a method to leverage the outer layer of users. It will be a part of the answer to the sub research question; h*ow can the firm's users be leveraged?* The four steps are analysed individually and new theory will be used in minor scale to back up some of the points.

4.7.2 Problem Definition of Product Development

Me-Mover wants to engage in crowdsourcing with a variety of product development problems that needs to be solved. CEO Eliason express the like this; *"At first it may just be to install a bottle holder or new lock on the transporter"* (Eliason, 2011). Incremental development and general improvement of the existing personal transporter are the main problem areas suitable for crowdsourcing. But the firm must have an in-house plan and continue to uphold internal R&D, because they cannot rely on the crowd to save the day every time.

One way of approaching crowdsourcing is through the four stepped model. The first step of this crowdsourcing process is problem definition. Stating with what kind of problem Me-Mover has, and what parts of the problem it wants the crowd to solve. Definition of the problem must allow incremental solutions, and must be carefully undertaken. If radical solutions are wanted, then the definition must allow for radical proposals. It means that every problem must be treaded separately, and have its own problem definition setting boundaries for acceptable solutions. But according to Pisano and Verganti's theory hierarchal and open crowdsourcing collaboration are best suited for incremental solutions.

Problem definition is about being as clear as possible. If it is vague it is very likely that the answers will be too. The trade-off of being clear is the risk of unintentionally leak intellectual property. A clear definition requires description of the system that the problem fits in. These leads might provide enough intelligence for competitors or opportunist to act upon, so the challenge is to balance this. Especially because the management form of crowdsourcing is like innovation mall collaboration from Pisano and Verganti. Where everyone can have a look and involve themselves in it.

4.7.3 Broadcasting of Product Development Problem

Jeppesen's second step out of the four is broadcasting of the defined problem. Me-Mover will have to disclosure the unsuccessful solved problems to the crowd.

In this case two types of channels can be used. The first channels are the firm's Facebook fan page or the webpage under firm governance. The second channel is through an intermediary. Some firms are specialised in acting like a broker between a firm with a technical problem and a crowd of individuals with interest in taking up such challenges. These intermediaries are the likes of InnoCentive[6], NineSigma[7] and Yet2.com[8].

Firstly Me-Mover can use its already established channels on Facebook and its webpage. Interviewing the CEO reveals the vision about building up an online community (Eliason, 2011). Controlling a community will provide unlimited access to broadcasting there. Length of broadcasting and frequency of posted problems, are not factors that will increase costs dramatically compared to broadcasting through an intermediary.

But an issue arises from broadcasting here. In the beginning only a small part of pioneers will be aware of Me-Mover's existence, and even fewer will be a member of the community. *"Yes exactly, all those who would participate are pioneers driven by being ahead of others"* (Eliason, 2011). This will cause lower diversity of the crowd and more homogenous characteristics of the individuals in the community.

To further elaborate the importance of Jeppesen's broadcasting of problem step, theory from Brabham will be applied. *"With such a lack of diversity of opinion in the crowd, particularly a lack of diverse identity, crowdsourcing applications are possibly doomed to fail, based on wise crowd theory"* (Brabham, 2008, p.86). Here Brabham underlines that low diversity in the crowd, is likely to result in failure in crowdsourcing of a problem. The chance of receiving an acceptable solution from outsourcing a task to the crowd increases along with size of the crowd. Because exposure to as many eyeballs as possible together with a diverse crowd, provides a greater variety of accumulated knowledge.

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[6] http://www.innocentive.com/
[7] http://www.ninesigma.com/
[8] http://www.yet2.com/app/about/home

For broadcasting in a crowd with more diversity, Me-Mover could establish a website focusing on development in connection to the firm's webpage. Posting of problems on such site would make it visible for users that do not desire membership in the community. Thereby a potentially larger crowd would cast its eyeballs on the problem. It will have the same advantages concerning price and time as the community, and the firm can update and add problems without going through a third party every time.

The mentioned models of broadcasting are what could be described as direct. Me-Mover posts problems directly to potential solvers they have in their network. The model is limited by the size and activity of the firm's network, causing difficulties to attract true unknown individuals in the pool of potential solvers.

To get around this Me-Mover can use broadcasting through an intermediate. Some firms are acting as intermediary between seekers of a solution and potential solvers. Broadcasting through here relies on the intermediary's access to a crowd. Because it is the crowd around the intermediary that sees problems posted on the webpage, and not solely the crowd around Me-Mover. Firms like InnoCentive, NineSigma and Yet2.com are all acting as intermediary between seekers of a solution and potential solvers. Seekers are firms like Me-Mover encountering a technical development problem which is unsuccessful solved. They can through one of the intermediaries broadcast the problem to the crowd assembled around it. Members of the crowd are problem solvers, often registered individuals at the intermediary with a passion or personal interest in solving such problems.

For instance InnoCentive has approximately 250.000 registered solvers (InnoCentive, 2011) in its network. This means that at least in the first many years of Me-Mover's existence, if the firm's network is not up for the challenge, the chance of a match with a solver is higher through this network. Moreover using the service of InnoCentive also offers the opportunity to anonymous address crowds and to get help to define the problem. The anonymity is worth considering for Me-Mover, if it is trying to solve a problem that is common for the line of industry. In this case they have a chance to obtain the solution from the crowd, while not leading any competitors on to the track. The drawback of working anonymous via a middleman is undermining the Me-Mover's open and transparent approach. InnoCentive also offers help to define the problem and make it ready for broadcasting.

4.7.4 Attract of Solutions to Product Development

The third step of Jeppesen's crowdsourcing process is attraction of solutions to the broadcasted problems. Me-Mover must make it attractive for members of the crowd to be creative on the firm's behalf. Submitting solutions or fractions of knowledge that lead to solutions must be worthwhile for the crowd. Otherwise it is likely they feel exploited and refuses to participate.

Attraction of many different solutions is essential. As elaborated earlier in the broadcasting step, diversity in crowd is increasing the chance of getting a successful solution.

To further elaborate this step of the crowdsourcing process, Amabile's theory about motivation behind creative work is applied. This theory is more specific about which factors individuals find motivating. According to Amabile motivations behind creativity can either be extrinsic or intrinsic (Amabile, 1998). Extrinsic motivation is influenced by the outside, *"whether it's the offer of a bonus or the threat of firing"* (Amabile, 1998, p.1). Intrinsic motivation origins from inside a person, *"it's a person's abiding interest in certain activities or deep love of particular challenges"* (Amabile, 1998, p.1). These motivations principles are used when individuals from the crowd taking up a task for Me-Mover. Therefore thinking about appealing to one of them or both is advantageous when Me-Mover is trying to attract the crowd.

Following this line of theory, Me-Mover can motivate the individuals of the crowd both extrinsic and intrinsic. Extrinsic motivations factors can be offering monetary award or gifts certificate. Monetary award is a fixed amount that is paid out to the solver of a particular challenge. The size of the amount, should vary and be set by firm according to the importance of the solutions and its' difficulty. The same applies to the gift certificate, which advantageous could be valid to Me-Mover products.

Other extrinsic factors Me-Mover should offer are public recognition and acknowledgment. Public recognition could be announcing a challenge winner, on their webpage or in the online community. Offering credit or ranking in the community, would make a distinction between talented user and ordinary users. Me-Mover could in best McDonalds' style have a solver of the month or year add-on to their webpage, currently displaying the rank of successful solvers. All the above is sparkling the users' extrinsic motivation. The developed part could also be named after the solver as a tribute.

Lastly colour schemes of the product or given part could be decided by the solver as a way of honouring his contribution.

A smart add on to the website, would be an automatically updated indication bar. It should display the number of participates showing interest in the challenge, and how many solutions there has been submitted so far. Individuals motivated extrinsic can by this get an overview of the level of competition and the odds of winning the price award.

Intrinsic motivation is strong. It can make individuals feel passionate about the challenge and the cause. *"Employees are most creative when they are intrinsically motivated"* (Amabile, 1998, p.1). Facilitating intrinsic motivation will be important. Particularly in product development scenarios were creativity and curiosity are needed and rather than traditionally salesmanship.

Further investigation of solvers motivation behind technical problems from InnoCentive by Lakhani et. al. shows that; *"Even though there was a substantial monetary prize for creating the best solution, the effect of intrinsic motivation is stronger and more significant"* (Lakhani et. al., 2007, p.11). This proves the influence of intrinsic motivation is this field. It can save expenses on financial rewards and even more important individuals feel a stronger motivation.

Therefore a lot can be gained, if Me-Mover awakens the intrinsic motivation of the crowd. To facilitate intrinsic factors Me-Mover should appeal to the fun and challenge in solving a problem. Stating the possibility of learning something new and challenge what you already know. This is a chance to question your knowledge, and apply it to break new ground. Highlighting the cause of urban active movement, which is to underpin the user's health and environmental friendliness.

Using these two different methods of motivating the crowd in Jeppesen's crowdsourcing model is backed up Lakhani et al. Their research of users solving technical problems on InnoCentive found financial rewards or intrinsic motivation were driving.*"Finally, successful solvers were motivated to engage in problem solving effort by either intrinsic motivations or financial reward"* (Lakhani et. al., 2007, p.4). The discovery done here further underpins the usage of Amabile's extrinsic and intrinsic motivation in a crowdsourcing perspective.

Based on these suggestions an online survey has been conducted to indentify which elements are motivating the respondents to work with challenges.
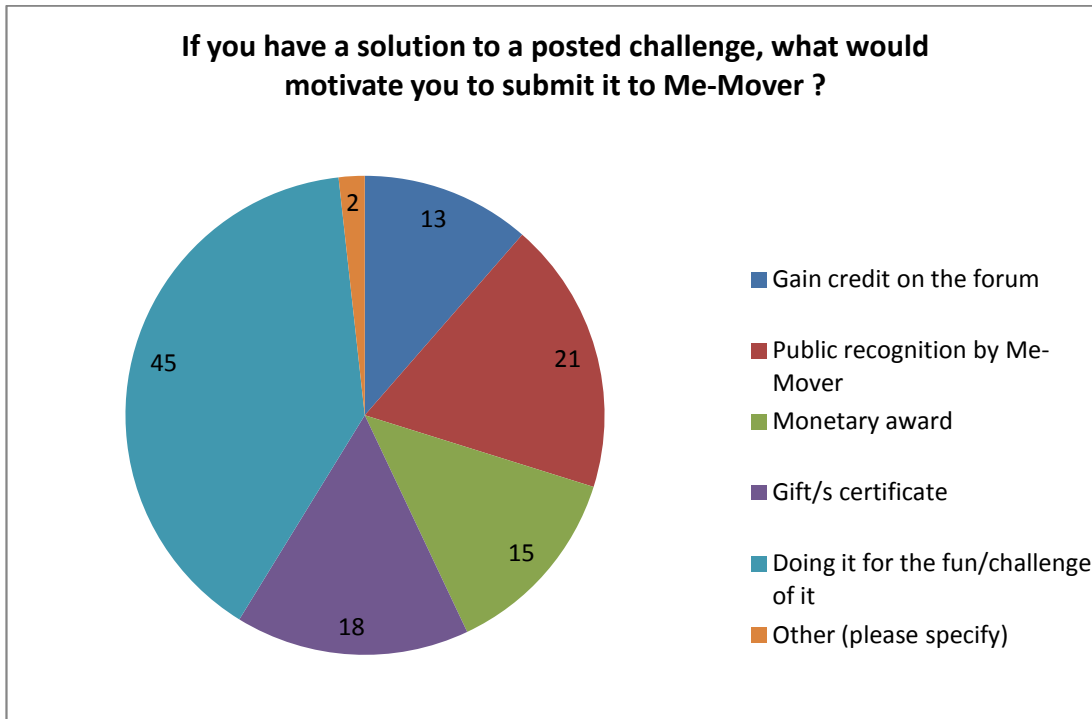
If you have a solution to a posted challenge, what would motivate you to submit it to Me-Mover ?

The chart above shows which elements respondents finds motivating for submiting a solution to Me-Mover. The 57 respondents are allowed to choose two different answers, giving a total of 114 answers.

The online questionnaire shows a clear tendency that most potential solvers are reacting to intrinsic motivational factors. Some 45 out of 57 respondents answered that they would solve problems for the fun or challenges of it. The second most motivating factor in the online questionnaire is recognition by Me-Mover. Users with skills whom active participates find differentiation of from those who are inactive motivating. Public recognition is a cheap way to extrinsic reward the solvers, but yet very effective. Offering users with successful solutions a spot light place is the way to motivate them to submit their knowledge. The third and fourth most motivating factors in the online survey are gift certificates and monetary award. These are the most costly method for Me-Mover to reward creative work done by the crowd. However they are not as effective as intrinsic motivation. At the bottom place is the reward of gaining credit in the online forum. It is an inexpensive way for Me-Mover to distinguish between individual solvers by credit in the forum, but it is also the least effective one. The less important status of these extrinsic motivation elements is corresponding to the theories by Lakhani et. al. and Amabile.

An interesting result is also revealed. It points out that some respondents find supporting a good cause motivating. Me-Mover's vision is to offer a healthy way around the urban jungle and at same time reducing your impact on the environment. Some users reacted to this cause by answering they were motivated to help Me-Mover solve problems because; *"Make the future a better place"* (Respondent8, 2011) and *"Feeling that I support a really good idea towards realisation"* (Respondent9, 2011). Again appealing to intrinsic motivation seems to be the most effective.

Together with the result of the online survey and the theories by Amabile and Lakhani et. al. underpins the importance of intrinsic motivation behind solving technical problems. Me-Mover should leverage it and focus on offering intrinsic motivational factors. Having users with intrinsic motivation is also good because they are more likely to be creative and passionate about the problem.

Crowdsourcing based on Amabile's intrinsic motivation may seem as exploitation of individuals. It seems strange that individuals from the crowd, wants to work for free. But theory from Brabham shows that personal gains are counteracting that. Even if the attraction award not corresponds with the effort of solving a challenge, it still offers the crowd some compensation. *"Crowdsourcing offers individuals in the crowd a chance at entrepreneurship, or at the very least an outlet for creative energy"* (Brabham, 2008, p.84). Here it is stressed that just participation in challenge of solving a problem, offer something in return for the individual. Brabham's identified chance of "entrepreneurship" further elaborate the effectiveness of intrinsic motivation in a crowd.

4.7.5 Selection of Product Development Solutions

The last step of the Jeppesen's crowdsourcing process is selection of a solution. Before a final selection can be made an evaluation of the submitted solutions is needed. Here Me-Mover can choose between internal evaluation, external evaluation or a combination of the two.

Internal evaluation is based upon expertise and suitability. The team has expertise in judging which solution servers best as an improvement of the personal transporter. The team is made up by Jakob and Jonas. Jakob's engineer background and Jonas' vision will act as funnel, filtering off solutions of lesser quality.

Suitability is a decision whether the solution fits the strategy for the product. Overall strategy for the product position and functionality, will determine if the submitted solution will be selected or not. Again Me-Mover must tread each project individually, in order to achieve the most accurate selection. A problem does occur when crowdsourcing produces ideas which content is novel for the firm. It could be radical solution based on a new or different technology than the firm normally handles. Then a small and focused Me-Mover team specialised in their personal transporter might not see the full potential of such concept. The reason is simply lack of expertise in that particularly field.

To counteract that lack, external selection is a possibility. Test marketing or community ratings are two methods to evaluate the solutions. Test marketing is producing small quantity prototypes with the new design, and then releases them to users in monitored proximity. Reactions and feedback will give the firm an idea of the product's popularity, and its' further potential.
But it requires resources to establish and run. For a SME like Me-Mover it will be difficult to manage in the beginning.

Therefore community ratings could be a wiser choice. This method fits perfectly into Me-Mover's vision of user community and involvement. According to empirical data gathered via the online survey, Me-Mover's future users support this approach.
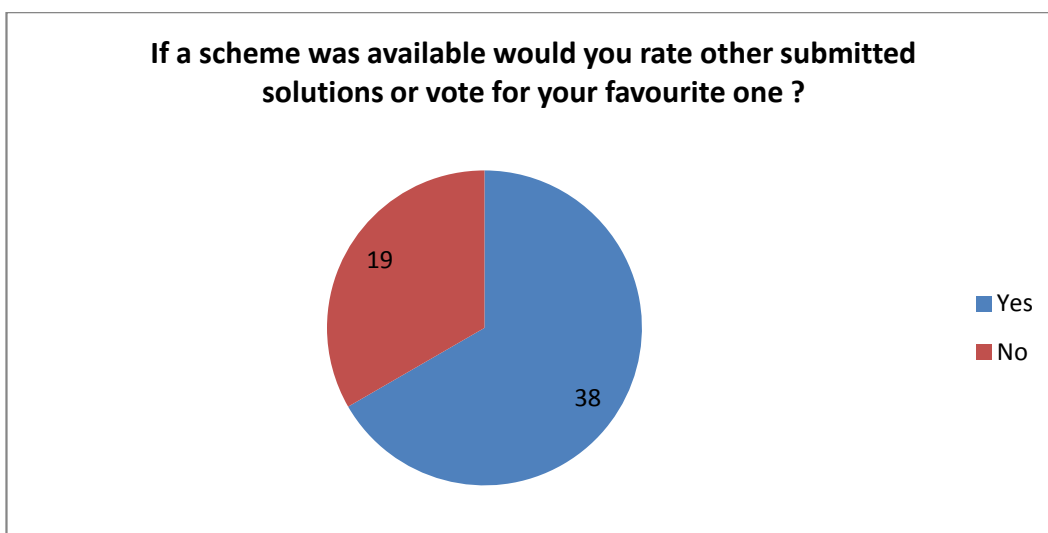

Chart 10

The chart shows the number of respondents that would make use of a rating scheme, if such is provided by Me-Mover. The total population is 57 respondents

38 out of the 57 respondents will use a scheme to rate solutions. The high number means that users have interest in shaping the direction of products. Some users answered the elaborating question of why they would use a rating scheme by; *"Like to see 'feedback' on different suggestions; different points of view"* (Respondent10, 2011) and *"Best way to improve the product"* (Respondent11, 2011). These elaborating comments confirm that users and their inputs are valuable source of information for Me-Mover's product development.

Getting users to help with the selection step has advantages. The first is concerning future potential of the product. Like test marketing it is about collecting opinions from respondents. Accuracy will increase exponentially with the number of ratings. If a high enough statistically representative number of users rate the product, will it provide a valid foundation for Me-Mover to select upon. This scenario will be easier to reach with online community rating, than singly target user outside cyberspace. Instead of relying on team conjectures the firm can get more solid information about products if they allow a market decision.

The second is concerning time. Time consumed to produce an online rating scheme, would be far less compared to production of prototype and shipment to a selected test user. Reducing time consumption in the selection phase will reduce the overall time to market for a product. Resulting in quicker capitalisation of solutions gathered via crowdsourcing. A lengthy selection process is also having an effect on the cost base.

Exactly cost base is important for Me-Mover. The possibility of lowering it and saving resources could determine success or failure. Using an online rating scheme for evaluation is less resource intensive than proto typing and test marketing. So Me-Mover is able to get great amount of information to lower costs. The compatibility with website and planned community will also keep cost down.

The problem with online rating is lack of user interaction with the product. Looking at pictures or blueprints of a product cannot offer the respondent the same feeling as living with it. Therefore Me-Mover needs to remain a bit critical towards incoming evaluations.

So it is advantageous to use rating schemes, because of its implications and the support from users. Furthermore it can be used for both novel solutions both also for minor incremental development. But Me-Mover must keep in mind to keep the hierarchical structure of the collaboration, by pre-screening the solutions that users can rate.

4.7.6 Crowdsourcing of Advertising Material

Crowdsourcing was targeted at technical development tasks, but it has gained ground in advertising context. *"Originally developed for scientific R&D projects, it has made its way to branding and design"* (Miziolek, 2011, p.16). With Miziolek's line of thinking, Me-Mover's opportunity for crowdsourcing of marketing material is analysed. It will be the last part of the answer to the sub research question; *how can the firm's users be leveraged?*
The four stepped crowdsourcing model from Jeppesen is the overall framework. Because the theoretical framework is aiming at encourage users to create solutions which are somewhat tangible and not mere actions from the crowd.

4.7.7 Problem Definition of Advertising Material

Me-Mover intends make use of external sources to solve problems with their advertising campaigns. *"We want the users to create their own videos and materials so they become a part of the marketing effort"* (Eliason, 2011). Me-Mover's CEO Jonas Eliason points out in an interview, that users are encouraged to produce videos and other material to help build up marketing efforts.

To facilitate crowdsourcing via Jeppesen's theory best the firm must formulate some concrete problems. Particularly in marketing context it is important. The online survey shows that far less individuals assessed to have capability to contribute to this field in comparison to product development. Even though, a user judges it to be the easiest field to assist with in the elaboration. It indicates that marketing material does not catch the individuals' interest. Therefore problem definition must sound interesting and not like a trivial brand engaging activity.

But neither of the two daily active team members has marketing background and therefore is likely to lack expertise in this field. Crowdsourcing seems like a quick fix to this. But not having prior knowledge can lead to lack of control of the task. Especially control and setting direction of the adverting is important. Miziolek's theory about marketing and crowdsourcing elaborates this. *"Chiquita was clever, however, about what brand elements could change and what needed to stay..... This limited how far consumers could take their submissions and, ultimately, kept stewardship in the hands of the brand"* (John Miziolek, 2011, p.16). Setting up boundaries as a part of the problem definition inspired by the Chiquita case, enables Me-Mover to keep stewardship and steer the advertising effort in the same direction as underlying corporate strategies. If the team is not qualified due to lack of expertise the stewardship might deplete. As a consequence problem definition might be unclear. Resulting in lower quality of the submitted material or users simply stays away.

The importance of control and clear definition is further stressed by a Businessweek article. *"For starters, there should be a clear distinction between fun brand-engagement competitions and overt spec-work contests that are simply seeking to use free labor"* (Businessweek, 2010). The quote taken from the article Crowdsourcing is Broken: How to Fix It. It illustrates the importance of problem definition and distinction between a fun brand building get to know us tool and a serious competition.

4.7.8 Broadcasting of Advertising Material Problem

Broadcasting can happen like product development challenges through a direct or an indirect channel.
Direct channel is via Me-Mover's planned online community site. But also a separate challenge site on the main website would be an advantage, to attract individuals whom do not wish community membership. Broadcasting here has the same benefits like product development. The risk of direct broadcasting is that only brand loyal members are aware of the challenge.
"The size of the community that participates may represent only a small portion of the brand's base" (Miziolek, 2011, p.17). Here Miziolek points out one of the risks of relying entirely on the firm's community.

The small portion is likely to be members or frequently visitors on Me-Mover's website. Such individuals are likely to have a strong relation to the firm. Because of their relation to Me-Mover they might be biased. Advertising created by this small biased portion might not fit a market penetration strategy or exposure to non users. Because it might build on perceptive arguments and points shared by those already using the product.

Indirect broadcasting can like product development happen through an intermediary. The mentioned intermediary InnoCentive is focused on technical research and development, so it is not to be the right intermediary for this purpose. But other intermediaries are specialised in logo designs and advertising. Firms like crowdSPRING[9] and Squadhelp[10] have build platforms, where solution seekers can reach a problem solving crowd. Broadcasting here means Me-Mover gets access to a larger already assembled crowd compared to the direct channels.

Squadhelp is focusing on providing this broker service to entrepreneurs and small businesses. Their customer value propositions are time and costs. Launching a problem here, and Me-Mover could within few hours start to receive submissions. The fee starts at 50 USD and the customer is entitled to get his money back, if submissions not meet the demands (Squadhelp, 2011).

As with product development it is wise for Me-Mover to broadcast to as many individuals as possible. The lack of in-house knowledge regarding marketing operations might have a lesser impact if a diverse crowd submit solutions.

4.7.9 Attraction of Advertising Material Solutions

Solving advertising problems for Me-Mover is a creative job. As with product development Amabile's theory about intrinsic and extrinsic motivation can further elaborate Jeppesen's model.

Like in product development the intrinsic motivation can be of significantly importance. It makes individuals feel passion about the challenge, and it does not require any prize rewards as payout.

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[9] http://www.crowdspring.com/
[10] http://www.squadhelp.com/

Appealing to the intrinsic motivation is about making the work itself motivating. Providing creative minds a chance to have fun and help the firm simultaneously. Intrinsic motivation can also be awaken by love for the urban movement, which the personal transporter stands for. This good cause to improve people's health and to bring down carbon dioxide emission related to personal transportation. If Me-Mover spins it right some will be thrilled, and will start to take up the challenge of designing communication to the latent market.

Extrinsic motivational factors are as before build up with; prize award, gift certificate and recognition by Me-Mover. Individuals driven by this must see benefits in taking up a challenge from Me-Mover, and starting to make the advertising material needed. Attract solutions through one of the intermediaries require a prize reward. So even though it is not as strong intrinsic motivation, extrinsic motivation factor is necessary here.

As seen in chart 9 most individuals are intrinsic motivated. Therefore trying to leverage this would be most valuable for Me-Mover when facing the crowdsourcing decision. The attraction step of marketing and advertising is very important. Because as the empirical material in chart 8 shows, this field is where least individuals believe they are capable assist.

4.7.10 Selection of Advertising Material Solution

Lastly Me-Mover has to select submitted solutions. Internal evaluation and selecting will be a hurdle. Because the lack of advertising expertise in the team this step is not straight forward. It will be rather difficult to insure alignment and synergies with other strategies. External help can play an essential role here.

External help comes in the two; community rating and expert help. As shown in the crowdsourcing of product development approach, the majority of individuals are prepared to use rating schemes. But too much crowd influence in decision making has downsides. Firstly it disrupts the hierarchical innovation mall collaboration with outer layer users. Secondly there is a risk that the crowd is full of users with no expertise in marketing and belonging strategies.

Clark (2010) argues that relying on the crowd is risky. *"The argument being that businesses wouldn't ask just anyone to get involved in building a high-speed train, so why should they trust anonymous third parties with their marketing activity?"* (Clark, 2010, p.13). Here Clark stresses that marketing activities is something that needs to be taken serious. It is not just a collection of cool looking user created pictures, it is equally important as product development processes.

Expert help can be the remedy for Me-Mover's selection difficulty. An article from Tiltman (2010) shows the possibility for firms to draw in an advertising agency to assist with crowdsourcing. *"According to Carl Ratcliff, planning director at ad agency MCBD, who worked last year on a campaign for OXO built around user generated content"* (Tiltman, 2010, p.15). Here Tiltman describes the case of OXO, a firm which turned to expert help of an advertising agency. This underpins Jeppesen's selection step by opening up for external assistance. Illustrating an advertising agency can be dragged in to support firm's crowdsourcing initiatives.

The point has been further backed up Miziolek. *"An external partner could, in theory, translate the results to other elements of the brand"* (Miziolek, 2011, p.17). Here Miziolek opens the possibility that advertising agencies can support firms when dealing with results of crowdsourcing.

Consulting an agency can be a good way for Me-Mover to make method in this madness. Hiring external professionals will counteract internal lack of knowledge. But financial means is needed for this. As CEO Eliason stated Me-Mover holds enough capital to plan the process, but not enough to go through with it. To avoid tripping over crowdsourcing, complex parts of an advertising campaign will have to wait until the firm's setup can support it fully.

4.8 Sub Conclusion of Leveraging the Outer Layer of Users

There are great opportunities for Me-Mover to leverage users through a crowdsourcing approach. An advantage is the targeting of crowds and not only selected individuals. Due to this more persons will be aware of Me-Mover's innovation problems, and it is likely to result in several successful solutions. But it is difficult for Me-Mover to keep track of who is taking on these problems and how the work is progressing. Overall the firm must have some ongoing development in-house, because it cannot rely on the crowd to solve every problem.

Crowdsourcing might seem as a cheap and quick fix of problems in product development and creating of advertising material. But the truth is that lack of resources is right now holding it back. Even if the crowd is intended to do the work, financial means are needed not only to start the process and but to keep it running. Crowdsourcing can fill out some holes in the firm's knowledge, but prior knowledge is necessary to start the process and set direction for it. Respondents are general interested in the initiative, but they favour product development tasks over advertising tasks.

5. Discussion and Main Conclusion

The aim of this thesis is to analyse how Me-Mover's vision of user involvement in business activities can be done. Theoretical frameworks and empirical material have been brought together, to illustrate how the firm in their given situation can facilitate external value creation by crowds and individual users. Some major conflicts are found in this process. This chapter will discuss the results from the analysis chapter.

First Me-Mover's CEO Eliason expresses the vision about users being part of product development, marketing and also sales activities. Product development has a long history of user involvement through integration of lead users, customer driven innovation and crowdsourcing. Marketing in a crowdsourcing perspective has started to win ground so much in fact, that intermediaries have spotted a market for providing a platform for matching solutions seekers and solvers.
But sales activity is still something new. An American based firm, LeadVine, has seen the market potential of it. As other intermediaries it has developed a new platform, where firms can place sales leads (LeadVine, 2011). Then crowds from all over the world can then make the connection between firm and customer earning a reference fee.

Whereas product development and creation of marketing material suits different theories of user involvement, sales activities cannot be fitted into any of these theoretical frameworks. Crowdsourcing is when a firm outsource a task to a large crowd of undefined individuals (Howe, 2006, online). This description from Howe who coined crowdsourcing and LeadVine actions in the field illustrates that sales activity in theory could be target for crowdsourcing.

But it cannot be managed in the selected four stepped process definition of crowdsourcing by Jeppesen (2010). Where clear distinction and implications between users starting to sell products or a professional is not present. The selection step of this model is also meant for somewhat tangible solutions.

Empirical material collected in connection to this thesis and presented in chart 8 shows that many users self assess they can contribute most to sales activities. But it is conflicting with the theoretical foundation presented, and therefore it remains as a discussion point.

User driven innovation and especially crowdsourcing might seem as a quick fix for innovation problems. It sounds too good to be true to outsource internal tasks to a crowd consisting of unknown individuals. Furthermore empirical material shows that many individuals are ready to work with the problems, and a majority is driven just by their passion for problem solving. It sounds like a win-win situation for Me-Mover.

But the truth is it requires prior knowledge and financial means to initiate it and keep it running. When managing the crowd involvement via Jeppesen's process definition of crowdsourcing knowledge is needed about the product context and feasibility. Especially in steps of problem definition and selecting of submitted solutions. Because definition of a problem needs to be clear for potential solvers to understand it fully and find it attractive to solve. Selecting of a solution require insights in market and technology if it is product development. A discussion point arises when it comes to creation of advertising material. Empirical material shows that the Me-Mover team lacks knowledge in this field. Evidence was presented of the firm OXO in one case brought in an advertising agency to help the firm with content created by a crowd. Along with Miziolek's statement that in theory a third party could assist with translate the content on to other elements, illustrates that lack of knowledge in this area can be dealt with (Miziolek, 2011). But it depletes the whole concept of crowdsourcing if further external help also is needed to codify the solution, before it can be usable.

Empirical data reveals that Me-Mover's SME status influences not only the number of employees, but also the financial resources. Stated by CEO Eliason the firm holds enough capital to plan user involvement, but are in need of additional capital to keep it running.

Having a minimum of resources open innovation and drawing in external knowledge seems like a remedy. But doing open innovation in direction of users requires capital and man power.

Theories regarding customer driven innovation and lead user method illustrates it is important to continuously allocate resources to such approaches. Creation of a tool kit enabling user to innovate can be done fairly inexpensive as the analysis proposes. But further development of it especially towards computer simulation will be rather expensive. It is the same with the lead user method. Not only is it a lengthy process, but it is recommended to be managed by a dedicated team. All these act as barriers for Me-Mover to start the user involvement process. To overcome this barriers additional capital and man power is necessary. As stated by Thomke and von Hippel (2002), Lüthje and Herstatt (2004) working closely with users require resources must be spend continuously to keep the collaboration going and evolving.

Until now feasibility and resources behind Me-Mover's open innovation with direction of users have been discussed. It is now time to discuss the suitability of user involvement at Me-Mover. The firm's vision is to make active movement first choice over public transport or commuting by car. Rollerblades, folding bicycles, skateboards and normal bicycles have already been invented. None of these have made it first choice over passive commuting. So something unconventional is needed. Me-Mover believes its personal transporter is just that. But involving potential users to finalise the concept and as sparring partners for further development might be an impediment. Pisano and Verganti's theory about collaboration management points out the conflict with user collaboration and development of radical products. *"Alessi..... and because the company's strategy is to offer products with radical designs that anticipate market needs, its offerings often initially confuse consumers"* (Pisano & Verganti, 2008, p.82). Radical designs often create confusion among consumers. Because of this Pisano and Verganti assesses user involvement is complicated at Alessi the famous Italian design factory. Me-Mover's situation does not differ much from Alessi's. It too offers a radical design, with the risk of confusing consumers. Confused consumers unable to perceive the whole vision are not likely to be of much help to Me-Mover.

A quote from Henry Ford, founder of Ford Motor Company, illustrates another significantly limit for user driven innovation, *"If I had asked people what they wanted, they would have said faster horses"* (Goodreads, 2011, online). It is an anecdote from a bygone era, but still not all users are capable of enhance innovations. Sometimes it is difficult for humans to express what they really imagine, and therefore pioneer in-house research is imperative to build a canvas where user driven innovation can unfold upon.

Empirical material has been collected among fans of Me-Mover's Facebook page and two forums regarding folding bikes and new bike concepts. A relatively low number of respondents have answered the online questionnaire. If the low interest from respondents is a general tendency then Me-Mover will face a hard time to engage them in much more demanding activities. Overall it paints the picture of crowds are not to be fully trusted to save day every time. It is wise to keep the innovative spirit high in-house, and see user involvement as a complement to this.

It raises the last discussion point in suitability of user involvement. Does Me-Mover's current business model suit user created innovations. Having an outsourced production to a Chinese supplier will make the process more rigid compared to an in-house production. Customer driven innovation theory from Thomke and von Hippel suggests that a firm's manufacturing processes must be flexible to cope with incoming users designs. Because it must be able to change processes and rapidly produce the submitted design, before a firm can profit from such. It means Me-Mover must carefully consider its setup. It will be a hurdle to make profit from a low volume production outsourced to China. Insourcing the production is not an option because of the high sales objectives. Ways out of this mess would be to only produce when the demand is high enough or simply try to negotiate a flexible contract with a Chinese manufacture.

5.1 Main conclusion

The main research question this thesis is set out to answer is: *how can a user involvement strategy be designed in order to explore and exploit opportunities among them?*

This study has made it clear that Me-Mover's vision is user involvement in business activities. The business activities are product development and creation of advertising. This vision is an organisational innovation, because currently these fields are located in-house.
This thesis argues for an inner and outer layer of users. To leverage these layers the firm must first build up the right strategic posture. Secondly, they must approach the different layers of users individually. It could be done by an overall strategy for user involvement consisting of four steps; adapting to openness, strategic posture, leverage of outer layer of users and inner layer of users.

First step of the strategy is adapting to openness. Open innovation thinking and its' guidelines are absolute essential in this step. The principles are fundamental in this case to get the best out of openness, and accepting users as important source of knowledge. Having the characteristic of an innovation marketer, the firm is craving for market insights to build a commercialisation on. Openness holds the power to provide these insights. Furthermore it can at some point counterbalance the lack of knowledge resources at Me-Mover. Implementing outside ideas in creation of new products and or incremental development can create new revenue streams. The argument of crossing firm boundaries in the direction of users is clear. Tapping knowledge from them has a great potential. It can reduce costs and time to market of an innovation, if the firm locate ideas ready to solve challenges concerning so. Instead of investing time and money in internal generation of knowledge, it can in some cases more easily be transferred from an outside location.

Another part of openness Me-Mover must be prepared to disclose some sensitive information to the users, in order to make them able to understand the innovation problem at hand. Open innovation is also about sharing intellectual property when it is beneficial. In this case it is absolute necessary for users to get some product insights, in order to innovate on it.

Second step is setting up the right strategic posture. This is necessary before explored external knowledge can be exploited. Currently Me-Mover's business activities of product development and advertising are kept in-house. Opening up and allowing external value creation in these fields is the right strategic posture for user involvement. But in order to sustain as a business the firm must keep value capturing internal. The key is to facilitate an innovation community and attraction of individuals for participation. Online Me-Mover's plan is to establish a forum where users and firm associates can debate and exchange ideas. In the real world the firm's CEO Eliason imagines workshop with selected users. A part of the strategic posture is collaboration management. The overall collaboration mode must be determined to best facilitate user involvement. Two modes of collaboration will suit Me-Mover's vision. These two are innovation mall and elite circle. Innovation mall mode and its principles are suited for outer layer of users. Here anyone has access and can contribute to problem solving. Elite circle is closed collaboration mode with the selected few. It is reserved for users showing superior skills. Through close and flowing collaboration Me-Mover and its user can create innovative concepts. Both innovation mall and elite circle collaboration has hierarchical structure, with the firm on top to set directions. Setting direction is important to insure resources are spend on solutions that suits the overall company strategy. The strategic posture is important to underpin user leveraging.

Third step is to leverage the outer layer of users. But it is important that leveraging of users is not initiated before enough resources are gathered to keep it running. Starting it up and not maintaining it might cause the users to look at it as a triviality. To leverage this layer of users a crowdsourcing process is necessary. It is the act of outsourcing internal innovation task to an unidentified crowd. Crowdsourcing of a task require; a problem definition, broadcasting of it, appealing to the crowd's intrinsic or extrinsic motivation and in the end selection of the submitted proposals from the crowd. Crowdsourcing is for both product development and advertising material. Empirical material reveals that respondents in general are interested in the initiate and will like to participate.

Collaboration management theory from Pisano and Verganti suggests that open and distanced collaborations are suited for incremental development. Therefore it is recommended for Me-Mover to place such development projects in the crowdsourcing approach. But it still requires knowledge and resources to initiate and run, even if it seems like the crowd is doing all the work. Me-Mover does not possess many resources in its present state. So starting by leveraging crowds will be wise. It is less complicated than leveraging individuals, and therefore easier to initiate. Because the personal transporter is a novel product and unknown to many it might create confusion. Starting by broadcasting minor incremental development challenges will make it more tangible for the crowd. Broadcasting should happen both in a firm controlled online community, but also on an additional webpage to attract those who do not seek community life. The organisation holds knowledge to start the crowdsourcing process of product development. But they still lack knowledge to control the advertising part, so additional team members or another external partner is needed. Crowdsourcing might seem like a quick solution for product development. But the truth is that resources saved compared to in-house development might still get spend on codifying, filtering and integrating the gathered information.

When relying on tapping wisdom out of crowds, heterogeneity in the crowd and the very size of it are essential. Because these two factors broaden the accumulated knowledge of the crowd, and determines the variety of ideas and solutions generated. Therefore it is absolute central for Me-Mover to rally a vast crowd under their banner.

Another issue with posting business challenges in a crowd is that it could ignite an entrepreneurial spark. If an individual in Me-Mover's community holds a solution it is not certain that he will give it away, but he might get inspired to start enterprising upon that.

In the end successful outsourcing of function to the crowd requires careful consideration, of which functions and to what degree.

Fourth step is an extension of the third step. Actions of the fourth step are customer driven innovation via a tool kit and a lead user integration method. These approaches consume more resources and time than crowdsourcing, both to start up but also to keep running. Beside the chasm between resources available and resources required, starting with crowdsourcing and then incorporate users on individual has a synergy. Through targeting of crowds it is likely that Me-Mover discover users with superior skills. These users should be perceived as potential members of the inner layer with a closer relation to the firm.

Providing users with a tool kit will enable them to more swiftly reconfigure and development Me-Mover products. Empirical material shows that beside computer simulation, respondents of the online survey expected sketches of the problem and life-size objects. It is costly for the firm to provide a tool kit, so it should only be offered to capable users with loyalty. Computer simulation is expensive so a reasonable way to start would be releasing sketches and objects used in the production.

In the end a special group of users marked as lead users should be integrated. Lead users often perceive a mismatch between product capability and their need. This happens before the general market becomes aware of this mismatch. So inviting them to closer collaboration via for instance workshops, Me-Mover could learn a great deal about future directions in the industry. Development of novel concepts should be placed in this closed where trust rather than control drives the collaboration mode. It is important to notice that

5.2 Suggestions for further research

Through the literature review it became clear that there are gaps in the present research of crowd involvement. Fields like creation of advertising barely exists. Virtually none research exists on crowd involvement in sales operations. Investigating these fields will create keys that can unlock its potential. More research will create in depth literature on the topic which can serve as guidelines for firms initiating crowd involvement. It will be valuable for the literature and firms to be able to look on successes and failures of crowd involvement. Researching both small start ups like the case firm Me-Mover and large internationals firms is required to fully understand the field. Because involving users in business activities comes in the many and has potential to solve problems at many levels. Another interesting field to investigate would be connection between the task targeted for user involvement and success rate of solving them.

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Respondent2 (2011) *"Online Questionnaire"* Question no. 4 What activities do you expect of this online community (please choose more than one)?

Respondent3 (2011) *"Online Questionnaire"* Question no. 6 Yes or no, but why?

Respondent4 (2011) *"Online Questionnaire"* Question no. 6 Yes or no, but why?

Respondent5 (2011) *"Online Questionnaire"* Question no. 12 Why the chosen area?

Respondent6 (2011) *"Online Questionnaire"* Question no. 12 Why the chosen area?

Respondent7 (2011) *"Online Questionnaire"* Question no. 12 Why the chosen area?

Respondent8 (2011) *"Online Questionnaire"* Question no. 7 If you have a solution to a posted challenge or a fraction of knowledge that could lead to one, what would motivate you to submit it to Me-Mover (please choose more than one)?

Respondent9 (2011) *"Online Questionnaire"* Question no. 7 If you have a solution to a posted challenge or a fraction of knowledge that could lead to one, what would motivate you to submit it to Me-Mover (please choose more than one)?

Respondent10 (2011) *"Online Questionnaire"* Question no. 10 If yes why?

Respondent11 (2011) *"Online Questionnaire"* Question no. 10 If yes why?

7. Appendices

7.1 Online Questionaire

The following survey is set to investigate the possible relation between Me-Mover and its' users. It only takes about 5-7 min to go through. It is conducted by a student from Copenhagen Business School, whom need the data in his master thesis about Me-Mover. The questionnaire offers fully anonymity and the answers are not binding. However if you are between the first 10 named answers, you will receive a Me-Mover t-shirt.

In near future Me-Mover plans to launch an interactive online community around its product. The idea is to involve motivated individuals in product development steps, creating of marketing material and sales processes. Challenges with both product development and marketing efforts will be posted, and members are encouraged to submit solutions or a fraction of knowledge that might lead to a solution. Debate forum/knowledge forum with other members and Me-Mover associates is also planned to be available, along with schemes and tools to ease communication in the community.

In other words it is users, enthusiasts or other curious persons chance to influence the future of urban active movement!

1. Here you can fill in your name and email if you like, it is not mandatory! Only if you want to have a chance to receive a cool Me-Mover t-shirt.

2. Would you like to join such an online community?

☐ Yes
☐ No

3. If no why?

[text box]

4. What activities do you expect of this online community (please choose more than one)?

☐ What activities do you expect of this online community (please choose more than one)? User driven Debate / Knowledge forum

☐ Knowledge forum with regular interaction from Me-Mover associates

☐ A news feed

☐ Scheme to rate new innovations or marketing material

☐ Connectivity to your Facebook/Twitter account

☐ An opportunity for a closed forum/debate between you and a Me-Mover associates

Other (please specify) [text box]

5. Me-Mover is planning an online posting of challenges in areas of marketing and product development in both community and on website, would you help Me-Mover work on a solution by submitting personal knowledge/knowhow?

○ Yes

○ No

6. Yes or no, but why?

[text box]

7. If you have a solution to a posted challenge or a fraction of knowledge that could lead to one, what would motivate you to submit it to Me-Mover (please choose more than one)?

☐ Gain credit on the forum

☐ Public recognition by Me-Mover

☐ Monetary award

☐ Gift/s certificate

☐ Doing it for the fun/challenge of it

Other (please specify) [text box]

8. If you have an idea for an improvement or an enlargement of the product range at Me-Mover what would motivate you to submit it (please choose more than one)?

☐ Gain credit on the forum ☐ Gift/s certificate

☐ Public recognition by Me-Mover ☐ Doing it for the fun/challenge of it

☐ Monetary award

Other (please specify) _____

9. If a scheme was available would you rate other submitted solutions or vote for your favourite one (these can be advertising material, new product features etc.)?

☐ Yes

☐ No

10. If yes why?

☐

11. Three areas have been selected for user involvement, which these areas do you think you can contribute most to?

☐ Marketing/advertising

☐ Product development

☐ Sales Activities

12. Why the chosen area?

☐

13. Would you make use of a toolkit (a toolkit is an assembly of tools, that allow the user to reconfigure or develop an object) to work on solutions if such was provided by Me-Mover?

☐ Yes

☐ No

14. If yes what do you demand that such toolkit includes (please choose more than one)?

☐ Designing software   ☐ Real life-size objects

☐ Sketches of the problem   ☐ Marketing material for sales demonstrations

Other (please specify)

15. Would a provided toolkit encourage you to work closer with Me-Mover?

○ Yes

○ No

16. If Me-Mover hosted a workshop focusing on product development or marketing/sales would you like to participate?

○ Yes

○ No

17. Yes or no, but why?

18. Would you like to become sales ambassador for Me-Mover if given the possibility?

○ Yes

○ No

19. If yes - what would motivate you to sell Me-Mover products (please choose more than one)?

☐ Sales commission   ☐ Membership in closed forum of super users with privileged access to new products and

☐ Discounts on Me-Mover products   upgrades

                                         ☐ Reference fee

Other (please specify)

20. Also if yes - what support would you expect from Me-Mover (please choose more than one)?

☐ Nothing is needed

☐ Demo products for sales demonstrations

☐ Marketing material for sales demonstrations

☐ A sales training session with Me-Mover associates

Other (please specify) ⎢⎽⎽⎽⎽⎽⎽⎽⎽⎽⎢

21. What would make you to just "spread the word" about Me-Mover (please choose more than one)?

☐ Gain credit on the forum with possible connection to Facebook/Twitter

☐ Gift/s certificate

☐ Public recognition by Me-Mover

☐ Unique user experience with Me-Mover product

☐ Monetary award

☐ The "love" for urban active movement

Other (please specify) ⎢⎽⎽⎽⎽⎽⎽⎽⎽⎽⎢

7.2 Interview with CEO Jonas Eliason

Part one of the interview, with focus on product and idea behind it.

Lasse Smith-Jensen: Jeg kunne godt tænke mig at vide ideen bag Me-Mover og hvordan du ligesom fik den, om det var en hendelse eller en drøm som kom til dig?

Jonas Eliason: Jamen historien er at jeg boede i Stockholm i 98, og arbejdede inde i midt byen og boede uden for byen, og tog public transport til og fra arbejde.

Det tog 5-6 minutter at gå ned til tunnel banen og så kørte den ca. 10 minutter. Den gik lyn hurtigt at komme ind til midtbyen, og så tog det ca. 20 minutter at gå derfra.

Så jeg brugte en halv time på gå ben og så 10 minutter i tunnel banen, og transporten i alt var ca. 50 kilometer.

Så det meste af tiden blev brugt til at gå. Jeg prøvede alt muligt forskelligt med hensyn til kickbikes og løbehjul, og prøvede på at få det til at fungere.

Men der fandtes ik rigtigt nogle gode løsninger, til hvordan jeg hurtigt kunne komme på arbejde. Og ja jeg vil i grunden også sådan gerne bevæge mig, man hvis stå på inlines så er man sådan fuldstændig driv våd af sved.

Så jeg spekulerede på at lave noget som var mere sikkert end inlines, men lige så nemt, eller faktisk også nemmere at have med at gøre. Altså noget man kan tage med, og så kom jeg hurtigt i tanke om et trehjulet design som kan pakkes sammen. Jeg havde nogle ideer, som man går og spekulere på når man ik kan sove osv. så tænker man lige gad vide hvordan man gør det der og så det der.

Jeg prøvede at spekulere lidt over det, men i 2004 var jeg ude på Amagerfælled, og på vejen opdager jeg der er sådan en vold ud mod vandet, som var asfaltteret altså asfalt belagt, vi stod faktisk også på inlines derude dengang.

Og så tænkte jeg på vejen hjem, gad vide hvordan det ville være hvis jeg kørte oppe på den vold altså på det skrå hvordan det ville føles. På tværs af bakken så at sige,

Lasse Smith-Jensen: Ja sådan lidt ligesom på ski kan man sige

Jonas Eliason: Ja lige præcis ik og når jeg trådte ud sådan der, ja så føltes det er fuldstændigt rigtigt. Så gik det altså ja lyn hurtigt faktisk og det var fuldstændigt lige som på ski det du har fuldstændigt ret i.

Men det gik lyn hurtigt afsted, og jeg trådte bare op og ned, så jeg blev ik særlig træt det var bare at spænde der ud af så at sige.

Hvis jeg skulle kører lige så stærkte på en plan vej ville jeg bruge meget, meget mere energi. Og så besluttede jeg mig for at den bevægelse der skal være, ik skal være sådan en udafgående bevægelse, men en lodret bevægelse. Og da jeg havde sådan en træde bevægelse faldt tingene på plads, og så skulle bare jeg finde på andre funktioner såsom transmission osv.

Og det gør jeg så i 2008 og derefter bandt jeg det hele sammen, så havde jeg konceptet til Me-Mover'en Klar. Selvom den i dag ser væsenligt anderledes ud, jeg fik en ide om man skal styre den på en hel anden måde og den har også fået et utraditional styr på osv.

Så det var sådan det opstod, det opstod som et behov fra min side. Hvor jeg vil have en fysisk måde at bevæge sig på, som både er hurtigt, sjov og som var let at bruge

Lasse Smith-Jensen: Ja, og et let samspil med public transport kan man sige

Jonas Eliason: Ja, men nu er vi også gået mere ind på fitness satsning. Men jeg er overasket hvor sjovt det blev at køre på den samtidgt med hvor godt et trænings instrument det er. Så det har bevæget sig lidt, eller meget fra udelukkende transport til transport og fitness træning.

Lasse Smith-Jensen: Det ligger lidt op til mit næste spørgsmål, hvordan den henne personal transporter Me-Mover'en hvordan den ligesom adskiller sig fra produkter vi allerede ser på markedet, der er jo masser af trehjulet cykler, kickbikes osv?

Jonas Eliason: Ja hvis du, ja man kan godt kategorisere dem, så man har hvis vi tager cykler ud af regnestykket, så har vi så folde cykler, sådan store folde cykler som fungere næsten lige så godt som almindelige cykler, og så findes der kompakte folde cykler, og så findes der kickbikes, inlines osv.

I forhold til kickbikes, så er den jo størrer men til gengæld kan du jo kører, du kan jo brugen den til ja jeg kører på arbejde med den. Der er 8 kilometer, man kan sagtens kører 10 kilometere på den uden problemer og endda stærkt, den er sjovere at køre på og du har meget større muligheder for at bevæge dig osv. Hvor kickbiken mere er et legetøj, så er det her et køretøj ik.

Og hvis vi nu tager den i forhold til inlines igen, det er mere et køretøj, det er mere sikker du kan bruge den også ned af bakke.

Men den største konkurrent der er på markedet, det er, jeg vil sige kompakte folde cykler. Og så man kan sige der findes jo nogle step ting altså "stand up and ride" step cykler, vi har faktisk købt et par stykker af dem de står begge to her. Men step cyklen er stor som en cykel men har step mekanismen.

Undskyld, vi tager lige transport delen, så kan man se at vi har de her folde cykler for øjeblikket. Men der findes ikke rigtigt nogen, hvor du sådan rigigt kan transportere dig selv for det er altså dårlig cykeler og du kan heller ik træne på dem. Det er meget svært at komme op og sidde ordenligt på den, og så Me-Mover'en jo hele træningselement.

Der er nogle folde cykler der er okay og fine at køre på, men stadigvæk ik noget som er lige så gode som en rigtig cykel. Så vi har, ja vi har køreoplevelse der er meget federe, meget federe end at cykle på en rigtigt cykel. Det er en rigtigt fed køre oplevelse plus vi har træningselement, du kan virkelige trykke den af hvis du vil. Men du kan også køre stille og roligt uden at svede, men du har virkelige muligheden for at få gennemført en god træning.

Lasse Smith-Jensen: Man kan sige det er lidt ligesom et kinderæg, altså der kan både være træning, det kan være sjovt og så kan du bruge den i daligdagen også

Jonas Eliason: Den rammer bredere, den har flere brugsmuligheder. Men det er ik ligesom en foldekniv, hvor du har en skruetrækker, dåseåbner osv, for den kan kun en ting, du kan bevæge dig på den.

Men du kan er at vælge hvordan du vil bevæge dig på den, der har vi et større span. Altså både transport og træning. Samtidigt men den er virkelig fed at køre på, den er sjov at køre på, du får større køreglæde.

Lasse Smith-Jensen: Ja jeg har prøvet den, og jeg syntes den er sjov at køre på. Men ønsker i at skabe en gruppe eller klikke som deler denne følelse, følelsen af urban active movement som man skal være lidt udenfor hvis man ik deltager i?

Jonas Eliason: Ja det ville vi jo gerne opnå for fanden. Ja folk skal have en klynge sammen, ligesom som dem der står på skateboard og inliners de har noget sammen, de er stolte af og de sprøger til hinanden.

Når man kører på en folde cykel føler man sig som en idiot. Jeg har kørt hjem fra arbejde på sådan ik. For det første fik jeg helt vildt ondt i ryggen og for det andet ser man fuldstændigt åndsvag ud når man kommer cyklende.

Men det er jo det, når man kommer på den her, jeg har selv kørt på inlines, når man kører ind til byen er det jo fedt at køre lidt hurtigere end de andre osv. men man skal se sikker ud og gerne lave et lille "sving" når man står på den, man kan godt se tjekket ud på inlines, men på folde cykel ser man jo bare ud som en tåbe. Med Me-Mover kan du det samme, de der inlines ting, hvor man lige kan svinge lidt frem og tilbage, man kan virkelig udstråle, ja glæden ved at bruge den med også,

man står lige op, har en god holding, godt overblik over trafikken, ja man kan se cool ud når man står på den, man ser ik dum ud Ik sådan sammenkrympet, som man gør de step bikes vi har, det er noget helt andet. Ja man kan se lidt mere cool ud på den Me-Mover'en og det er noget vi arbejder med og noget som vi vil udvikle.

Part two of the interview, with focus on the vision of user invovlment and resources.

Lasse Smith-Jensen: Me-Mover'en er jo stadigvæk kun en prototype. I videre udviklingen har du snakket om du godt kunne tænke dig at få brugere med ind, til ligesom både videre udvikle den men også være med til at skabe følelsen af konceptet. Jeg kunne godt tænkte mig at vide, og komme lidt dybere ind i hvordan du ligesom havde forstillet dig denne bruger indragelse i fremtiden, har du overvejet nogle planner og metoder for det?

Jonas Eliason: Ja altså metoder har vi ik så forfærdelit mange af, og det vil vi gerne have noget hjælp med. Men vores plan er, ja at indvolvere brugerne på et tidligt stadie vi har allerede startet op med en facebook side hvor vi prøver at indvolvere brugerne, og også en blog etc.

Men tanken er at vi skal, min ide er altså jeg vil på den lange bane drive det her mod en open innovation strategi, som er svært nu i starten hvor vi arbejder med forskellige investorer og her er patentet en rigtigt vigtig del. Vi arbejder også med kinesiske producenter, men når vi kommer længere frem vil vi gerne have sådan en open innovation strategi hvor vi får ideer fra brugerne og får indvolveret dem aktivt i vores business, det er så den ene side af det

Men den anden side og som har og så har alle mulige udfordringer er hvordan vi skal have arrangeret dem, og der har vi ik helt fundet modellen endnu. Nogle bliver engageret bare fordi de godt kan lide produktet, og de har muligheden får at prøve vores beta, vi har fået arrangeret test drivers fra hele verden som om nogle måneder skal starte med at teste dem. Men vi vil også sælge dem vores beta produkter, hvor vi siger det er en beta den kommer til at gå i stykker og du skal hjælpe også til at fixe den.

Lasse Smith-Jensen: Altså så du ligesom ik sælger med problem fyldte produkter men gør plads til at brugeren kan være en del af løsning

Jonas Eliason: Jo vi sælger med problemer, vi siger hjælp os med at finde problemet. Jo det jeg mener er, det første af ideen er jo afprøvning men det næste ting som vi gerne vil have med er jo at brugeren kommer ind og siger "arhh" men vi skal lige ændre lidt på det. I første omgang kan det jo bare være at de sætter en flaskeholder på eller ny lås på siden, men også en anden type hjulophæng eller en anden type bremse system kunne tænkes. I beta modellen kører vi med to typer bremse systemer for at se hvilket folk bedst kan lide. Begge to fungere men hvilken er bedst for brugere at håndterer det er første del, den tekniske del. Den anden er, vi vil gerne have brugerne til at lave egne videos og materiale så de bliver med til at bygge markedsføringen op.

Og derefter kører det rigtige system til at få promoveret det her, så der er mulighed for bruger at fårs noget for det hvis han fremviser Me-Mover eller laver en super fed film. Dette kunne tænkes at ske via konkurrencer eller events.

Men også at vi stræber på at få etableret og støttet et forum, men eget initiativ og egen feedback, for at få et levende forum hvor folk kan udveksle ideer, fx. hvor der er super fede steder at kører så man kan få den fede historie fortalt via dem.

Så det er udvikling, markedsføring og så har vi også tænkt os at, og det vil vi gerne teste, at få det solgt via direct sales, altså en form for reference sales kunde til kunde, hvor brugerne selv går ud sælger den til omverdenen eller sine venner. Og få lavet det til en simpel model, så det er fuldstændigt gennemsigtigt, og det ik ligner et pyramide spil men er meget, meget transperant ik.

Så det er de tre områder, hvor vi også tror at det er tre områder hvor brugerne har forskellig motivation . Der findes nogle som vil gøre alle delene, og igen er der nogle som kun vil engagerer sig i salg og nogle som kun vil lave fede videos, og nogle som kun vil se på udviklings delen. Der vil ligge forskellige motivations faktorer bag dem alle, det har vi tænkt os arbejde lidt med.

Lasse Smith-Jensen: Ja det med brugerens motivation, det vil jo koste noget et få brugeren med. Er der sådan at i har budgetter eller har du tænkt lidt over det, om brugeren skal have en pris for at hjælpe jer med noget eller det bare skal være ren anderkendelse, eller vil i individuelt vurderer hvad der virker i det her projekt?

Jonas Eliason: Det som er lidt tesen i det her, som vi to jo også har diskuteret tidligere, er det at vi har.. Hvis man læser bogen The Tipping Point, den omhandler måden man får et produkt til at vælte

verdenen på, man for at når et tipping point skal man have tre forskellige slags mennesker. Der er Mavens, dem som ved noget, som har samlet på viden altså technical insight. Så findes der Networkers, altså folk som kender en masse mennesker og deres passion det der driver dem er at koble mennesker sammen, altså du skal tale med ham og ham. Til sidst så findes der salesmen som er rigtige dygtige sælgere.

Hvis vi nu siger vi har de her tre forskellige person typer, man kan selvfølgelig definere mennesker på alle mulige forskellige måder. Men de tre grundlæggende dele så vil jeg tro dem som står for teknik delen, det vil være en slags mavens, altså folk der har viden og elsker at udvikle. Min tese er de vil frem for alt have anerkendelse, nogen drives selvfølgelig også af penge, men dem som vi ønsker at få fat på via denne tilgang drives af anderkendelse. Det kan de få fra vores forum, hjemmeside osv. Men altså give dem offenligt anerkendelse.

Lasse Smith-Jensen: Så man kan altså sige en Me-Mover i Jens Jørgen edition, eller med Jens Jørgen bremse systemet

Jonas Eliason: Jamen det ville være rigtigt godt at får navn på, eller bare en linie eller farve, som et en slags "tribute to", fakisk en rigtigt god ide det med at sætte navn på, godt fundet på. Så det er den ene del.

Så har vi de her Networker. Tesen er at drivkraften er at bygge videre på deres netværk at få et endnu større netværk. De skal have nogle credits, for at skabe kontakter og have muligheden for at udbygge deres netværk endnu mere.

Til sidst har vi disse Salesmen. De har selvfølgelig lidt af de andre, da de ik kan tjene en million millarder på det her. Men de skal primært have en måde de kan få penge for det.

Lasse Smith-Jensen: Ja eller, man kan sige det vi snakket om før den her følelse, altså være med til at sprede denne Me-Moveing følelse, ja være med til at gøre det til en trend

Jonas Eliason: Ja netop, alle dem som ville være med her drives jo af at være med på det sidste nye og være lidt foran de andre. Det er lidt det vi har prøvet at bygge op henover alt det her. Derfor vil vi skabe en platform hvor man kan mødes, udveksle ideer og skabe denne unikke værdi for de her mennesker.

Lasse Smith-Jensen: Simpelthen så der skal være et samspil. Du snakker før om pen innovation, så i er ik bange for at tage udefra kommende ideer ind for at sælge dem og du er heller ik bange for at samtidigt blotte følsomme oplysninger. Der skal selvfølgelig vælges mellem brugere, så hvis der er en bruger som viser sig at være værdig kan han så komme tættere på Me-Mover kernen

Jonas Eliason: Ja vi har også tænkt også at lav nogle lag. Så hvis man har bidraget eller været med et stykke tid, eller har været meget inde i forummet så kan man få, man kan ik sige et clearing niveau, man kommer ind i en "innercycle" på en eller anden måde måske via nogle innovation camps.

Lasse Smith-Jensen: Så ideen er ligesom at tage bedre hånd om de brugere der viser sig at være mere aktive og ja talentfulde faktisk

Jonas Eliason: Ja fx. ved at man har et point system, hvor man kan samle nogle point sammen og så derefter blive inviteret til nogle camps.

Lasse Smith-Jensen: Ja det lyder jo altsammen meget spændende må man sige. Men jeg tænkte på Me-Mover's status lige nu, mener du i har ressourcerne og brain power nok til at igang sætte alt der her, eller kommer det i steps?

Jonas Eliason: Ja det vil komme i steps, vi har ressourcerne til at planlægge det og til at starte det. Men det vil jo kræve masser af man power at drive det her system, og det har vi simpelthen ik lige nu. Vi har til at starte det op, men derefter skal der folk på som kan køre det fuld tid.

Lasse Smith-Jensen: Ja der er jo nok nogle som skal stå for alt denne her interaktivitet med de her brugere og ligesom sortere i hvem der skal vide hvad og hvorfor, og hvem der ligesom skal beskrive de her udfordringer, problemer og løsninger som i kunne tænke jer at indrage folk i. Så kommer jeg til at tænke på, du siger i har brug for flere folk, i beskriver på hjemmesiden at i har et team omkring Me-Mover, og jeg tænkte er alle sådan lige aktive?

Joans Eliason: Jamen det er jo mig og Jacob som er her fuld tid, og så får vi 4 praktikanter nu. De skal arbejde mere med design og teknik, to af dem er færdig uddannede indenfor design fra Belgien, og så kommer der to studerende i et semester fra DTU. De skal så hjælpe med design og systematisering.

Så vi prøver at tage kræfter ind den vej fra, men ellers er det mig og Jakob der arbejder her på fuld tid. Så har vi et advisory board, som vi lige nu er igang med at med iværksætte igen efter sommeren. Vi vil også prøve at få etableret en bestyrelse, og så bruge advisory board'et som en slags expert-råd.

Vi vil også bygge ud med en bestyrelse og ansætte folk. Men ansættelser bliver først til næste år, men vi prøver at få praktikanter ind gratis til at hjælpe os. Vi har ik råd til at ansætte folk lige nu og her desværre, for det havde ellers været en god ide at få startet det op nu. Men nu vil vi begynde med at sælge vores beta'er, det regner vi med sker næste år

Lasse Smith-Jensen: Det bringer mig så til det sidste emne i denne omgang, Me-Mover og fremtiden. Jeg har læst på jeres hjemmeside, der står at i vil "deliver sound, fun and functional products", det indikerer jo at der kommer flere produkter, er det noget vi vil se og hvor meget skal brugerne være med til det?

Jonas Eliason: Jeg tror det vil være en super fed ide, ligesom du vidste mig med den Ferrari, at man ligger en liste ud med forskellige produkter og siger vi, vi har det her som base og så kan brugerne kommer med forslag.

Det som selvfølgelig ligger ligefor er forskellige varianter af Me-Moveren, altså børne varianter eller en ren trænings variant som selvfølgelig er større, og en meget kompakt variant som kun fylder halvdelen. Så det vil være varianter af Me-Mover'en og tilbehør, såsom urban active clothing, det kunne være tøj man kan bruge uden man kan se at man sveder.

Lasse Smith-Jensen: Så man kan sige Me-Mover'en denne her personal transporter, skal ligesom starte det hele, og så skal forskellige produkt kategorier eller en videre udvikling støtte op om den?

Jonas Eliason: Ja hele vores vision er jo at gøre det nemt og tilgængeligt at bevæge sig. Altså gøre det muligt i hverdagen at bevæge sig, altså jeg har selv været aktiv hver dag i næste 10 år.

Det er hver eneste lille minut du bevæger dig, det hjælper altså på dit helbred. Så vi vil gøre det nemt at bevæge sig i hverdagen, og det kan være alt fra Me-Mover'en over til tilbehør som gør det muligt både at bevæge sig uden at skulle have for meget oppakning med.

Lasse Smith-Jensen: Nu har du været lidt inde på det, med hensyn til direct sales, men hvordan ser du mulighederne for distribution? Skal det test køres her i Skandinavien eller skal det exporteres hurtigst muligt

Jonas Eliason: Planen er at test køre det i Skandinavien, de første beta's vil blive solgt i her. Det er her vi starter får at lige se markedets reaktion an.

Men det vi sådan rigtigt starter med er Holland og Danmark. De ligner jo hinanden på mange måder, men Holland er på mange måder et nemmere område at operer i. Fordi de er meget mere åbne over for nye løsninger, hvor Danskerne lige skal bruge tid til at vurdere.

Lasse Smith-Jensen: ja Holland, en stor koncentration af mennesker på et lille sted, det er flat og har en god public transport

Jonas Eliason: Og folk i Holland kigger anderledes på cykling, det er meget større dernede. Så det er de to steder vi rigtigt starter op. Der tror jeg vi kan opnå en hurtigt spredning. I Holland starter vi ik med direct sales, men der har vi distributører som står og venter.

Lasse Smith-Jensen: Det bringer mig videre til målsætningen, har i nogle overordenet mål for antal solgte produkter eller et beløb?

Jonas Eliason: Jamen vi har nogle planer men man kan aldrig vide. Vores er plan er, hvis vi kører det her rigtigt og når vi på et tidspunkt slår igennem at være lidt ligesom løbehjulet for nogle år siden. Det kostet næsten 2000 kr. da det kom frem, og fra april 99 da det blev lanceret til julen 2000 blev der solgt omkring 3 millioner eksemplarer. Det var jo en enorm hurtigt spredning, jeg tror vi har nogenlunde samme muligheder på længere sigt da ting spredes hurtigere i dag. Men vores mål er at sælge nogle hundrede tusinde til tre hundrede tusinder Me-Mover's per år, inden for en seks til syv års tid.

Lasse Smith-Jensen: Er det på globalt plan eller..

Jonas Eliason: Det vi har regnet på er Europa faktisk. Men hvis vi tager et eksempel, der bliver solgt 500.000 cykler i Danmark hvert eneste år. Nu ved jeg ik hvor mange løbehjul der bliver solgt med det ligger sikkert i den stil også. Og så var vi inlines og skatesboard på sikkert en 30-40.000 stykker.

Lasse Smith-Jensen: Så i vil simpelthen lave en lille procent del af de markeder om Me-Mover markedet?

Jonas Eliason: Ja men mange af dem vil have en cykel og en Me-Mover. Så de vil vælge en Me-Mover istedet for et par inlines eller i stedet for noget lignende ligesom en BMX cykel. Men det vil altså være en kompliment til at starte med. Men jeg tror at i en stor byer som London eller New York eller så videre, vil det ik være nødvendigt med en cykel hvis du har en Me-Mover normalt set. For du vil kunne opnå de samme ting. Da den dækker de samme behov og er meget næmmere at tage med. Og der findes ik noget som er så kompakt, og som stadigvæk er fedt i sin egen ret.

Lasse Smith-Jensen: Ja den tilbyder jo de her specielle "carving movements" som i har beskrevet. Jeg tænkte på har du nogle exit strategies for det her eller er det bare ren passion?

Jonas Eliason: I de andre firmaer som jeg har startet, havde jeg en ide om jeg skulle blive meget rig og det blev jeg nu ik. Men jeg var med til at hive en masse penge ind til firmaet og det så godt ud i lang tid. Men det endte med jeg efterfølgende arbejdede et stykke tid hvor det ik var særligt sjovt, altså det drev mig ikke særligt meget. Jeg har været en del af management'et som styrede det hele, men vi fik en stor entrepreneur ind, og jeg blev en del af teamet som udviklede systemer til spil markedet altså til en-armet tyve knægte og lignede, og det siger mig ik noget.

Så det jeg har sagt til mig selv er at jeg skal lave en produkt som ik kan undgå at være mægtigt sjovt at arbejde med uanset hvor det drejer hen af. Det er sjovt at arbejde med transport, og det lige sjovt hvis ik sjovere at arbejde med fitness. Men uanset hvad så er det noget jeg syntes om og det driver mig til at prøve min egne egenskaber af. Så ja der ligger en stor passion bag ved, og jeg kan sagtens se mig selv arbejde mange år med det her. Jeg tror ik jeg vil lave det her resten af mit liv, der er nogle andre ting jeg også vil prøve af. Men omvendt hvis der kommer et godt tilbud om køb og man kan få et godt sammenarbejde op at køre, så vil det ikke være utænkeligt at jeg vil give det fra mig. Men jeg vil have det op og kører, jeg vil have salg og jeg vil have en stabil cash flow i firmaet, det er de personlige mål jeg gerne vil opnå med det her firma.

Lasse Smith-Jensen: Så man kan sige der er en forrentningsmand med passion der står bag?

Jonas Eliason: Jeg ved nu ik om jeg er så meget forrentningsmand, det vil jeg ihvertfald gerne blive bedre til, men jeg vil utroligt gerne lykkes med det her. Det ville være super fedt.

7.3 Jeppesen's Crowdsourcing Process Definition

Lars Bo Jeppsen's systematically approach to crowdsourcing. From CBS Elective Managing Outsourcing In the Age of Globalisation and Innovation (CM-V67), Lecture 8, December 8, 2010. The Author was a student at that particular elective.

Background and definitions (1)

❖ Definition of crowd-sourcing

❖ *Crowdsourcing is an online, distributed problem-solving and production model that has emerged in recent years (Brabham, 2008).*

❖ *Crowdsourcing represents the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call. This can take the form of peer-production (when the job is performed collaboratively), but is also often undertaken by sole individuals. The crucial prerequisite is the use of the open call format and the large network of potential laborers (Howe, 2006)*

How crowd-sourcing relates to outsourcing

❖ Similarities: multi-sourcing? Mix and match with different partners.

❖ Is crowdsourcing just an extension of multi-sourcing?

❖ Crowd-sourcing (main differences to outsourcing (and multi-sourcing))
  ❖ Companies search broader and often in more fragmented supplier groups (often individuals)
  ❖ Self-selection of suppliers to tasks
  ❖ Often Communities of individuals involved.

❖ Out-, Multi-, Crowd-sourcing: Complements or substitutes?

Process definition: **D.B.A.S.**

1. Definition of Problem

2. Broadcast Problem

3. Attract Solution(s)

4. Select Solution(s)

Process definition: D.B.A.S.

Definition of Problem:

What kind of problem do we have and
what parts of it do we want the
crowd to solve?

Problem structuring

Process definition: D.B.A.S.

2. Broadcast Problem

Access community

Disclose on the internet/news paper

Process definition: D.B.A.S.

3. Attract Solution(s)

Prize awards

Gifts

Recognition

Process definition: D.B.A.S.

4. Select Solution(s)

Evaluation of outcome

Decision by Market, community
ratings, pre-set prize