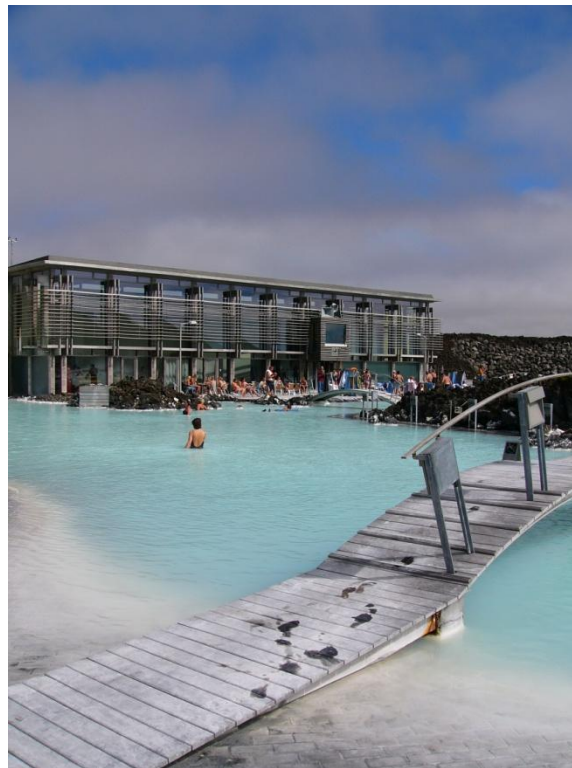


Efficiency of user-driven innovation

The efficiency of user involvement in the Icelandic travel industry: The Blue lagoon



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Abstract

The subject of this thesis is to study the efficiency of user-driven innovation (UDI) in a highly innovative Icelandic company in the field of tourism. Theoretical perspective on recent trends in tourism and open innovation systems are discussed to cover the academic aspects of the subject. After interviewing several other companies and associations for potential case studies with UDI characteristics in their operations a case study chosen is the Blue Lagoon.

The methodology used is a form of qualitative research and the majority of references in the analysis were therefore first hand interviews with managers and a customer of the company. A known model was used as a structure to map the innovation process of the company and to analyze the involvement of users throughout the process in a consistent way. The model is called the Innovation Wheel.

The case study demonstrated different indications of user involvement in the innovation process of the Blue Lagoon. There are several stakeholders of the company; lead-users, main-stream users, employees and travel agents who generate new outputs of service or products as well as improving their previous ones by adopting UDI methods.

There is evidence that show different drivers of innovation in the company's innovation process. However the managerial team is aware of the importance of involving users in their product and service development. The research demonstrates that amongst those new outputs that are being offered users have been involved more frequently.

Key words

User-driven innovation, user involvement, lead-users, main-stream users, Innovation wheel, Blue Lagoon, tourism innovations, tourism trends, user needs, open innovation, service management, sustainable tourism.

Prologue

This thesis is a final assignment for a bachelor degree in business by the faculty of business at Bifröst University. The assessment of this thesis is 12 ECTS credits. The work was performed during September 2009 till January 2010.

The subject of this thesis is innovation in the field of recent trends in tourism. Theoretical perspective of innovation is covered in-depth and a research case study is performed to verify the academics and increase understanding on the subject.

The researcher would like to give special thanks to supervisor Einar Svansson, assistant professor at Bifröst University, for his great support during the whole process of this thesis. Thanks also to my parents for their constant motivation and support.

I, undersigned, have done this thesis on my own and fully accordingly to the regulations and demands of Bifröst University regarding work of final assignments in undergraduate studies.

Bifröst University, 19th January 2010

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1. Introduction

The objective of this thesis is to shed some light on innovation with the perspective called user-driven innovation (UDI). It will cast a strategic view of how managers can make their companies more innovative with the usage of this new theory and concepts. It might help them to understand the importance of involving users to generate new ideas and identify solutions for their companies operations. This method can turn out to be a very usable tool to create value, get differentiation and to gain a competitive advantage beyond their competitors.

The objective of focusing on user-involvement in this research is to better understand the newer trends and less documented approaches to innovation. The need to innovate is growing stronger for companies to survive.¹ These changes are evident throughout the tourism sector, the products and processes of tourism are being modified at an increasing rate.²

In order for tourism companies to stand out and gain a competitive edge in the industry they are starting to use new methods. Using lead-users companies to bring in customers who are opinion leaders/innovators and ask them what requirements are not currently being met by existing products or services.³ Main-stream users are the majority of customers in a corporation and therefore form the voice of the customer because of their numbers. Listening to their voice by extracting information gathered from them can be an effective way to inspire innovative actions.

In this thesis a theoretical perspective on concepts connected to the subject will be covered followed by a thorough case study. The objective of the case study is to find a pioneering Icelandic company which is highly innovative in the field of tourism and analyze its current user involvement and see if there are opportunities for further involvements. The focus in this analysis will be on how new products and services are created through UDI in connection to the Blue Lagoon bathing resort and skin products.

The strategic methods used to fulfill future expectations of the customers will be studied with the main focus on user-driven innovation and its efficiency. Data will be collected

¹ (David & Foray, 2002)

² (Hall & Williams, 2008)

³ (Zethaml & Bitner, 2003, p.143)

by first hand qualitative methods mainly through interviews with managers and customers of the company chosen.

In a historical context it is not a relatively new method when companies use 'special' clients when generating or designing new innovations. For example in the sports industry, companies have used top running athletes in the development of new running shoes. Extreme sports products are an area where the user is actively involved in improving existing products which often serves as direction for product enhancements. Computer games are another area, where the consumer assumes an active role in developing new products.⁴ Even though innovation has historically occurred in tourism orientated enterprises, innovation has only recently been identified by tourism researchers as a focus of academic attention.

The research question for this thesis is:

"How can a company in the field of tourism systematically use their users of products and services to generate new offerings and improve their previous ones with user-driven innovation methods in order to create value, differentiation and gain a competitive advantage?"

⁴ (FORA, 2005, p.31)

2. Theoretical background

To be able to support the research performed in the case study with a proper link to the academic field of this thesis; a few fundamental concepts need to be defined in some detail. This way a foundation for answering the research question is set.

2.1 What is innovation?

The field of innovation is broad and there is no one definition of the concept more correct than the other. In a wide context innovation refers to the continuous improvements and changes that all entities (companies, academic institutions, research facilities and even the public sector) must make in order to remain competitive.⁵

*Innovation is not a single action but a total process of interrelated sub processes. It is not just the conception of a new idea, nor the invention of a new device, nor the development of a new market. The process is all these things acting in an integrated fashion.*⁶

The innovation theory covered here spans the service sector where the tourism industry is growing fast and the need to innovate is growing stronger for companies to survive.⁷ These changes are evident through out the tourism sector, the products and processes of tourism are being modified at an increasing rate.⁸

Three main categories of innovation were presented by FORA⁹ in 2003; price-driven, research/technology-driven and user-driven.¹⁰ This classification of innovation will be supported in this thesis.

⁵ (Norden, 2006, p.9)

⁶ (Trott, 1998, p.11)

⁷ (David & Foray, 2002, p.171)

⁸ (Hall & Williams, 2008, p.3)

⁹ FORA: a research and analysis division under the Danish authority for enterprise and construction

¹⁰ (Norden, 2006, p.9)

Table 1. Innovation drivers.

Source: Norden. (2006). *Understanding user-driven innovation*. Copenhagen: Nordic council of ministers. p.10 (Modified by the researcher)

Driver:	Focus areas for action:
Price	Cost efficiency
Research/Technology	Knowledge-intensity, linkages between research and industry, commercialization of research
User/Consumer needs	Better understanding and meeting both explicit and latent consumer demands; strategic usage of design processes; commercializing solutions already developed by users

There is a shift occurring in market innovation from crude market segmentation to relationship and networked marketing with closer linkages to the customers.¹¹ The customer is being more acknowledged as a new source of ideas and becoming more involved in the innovation process as a partner.¹²

2.1.1 Traditional innovation models

A traditional definition of innovation is a three step change process; (1) generation, (2) acceptance and (3) implementation of new ideas, processes, services or products.¹³ Another traditional innovation process (see figure 2) is seen in four phases as (1) Search (2) Select (3) Implement and (4) Capture.

¹¹ (Tidd, Bessant, & Pavitt, 1997)

¹² (Hall & Williams, 2008, p.3)

¹³ (Kanter, 1983)

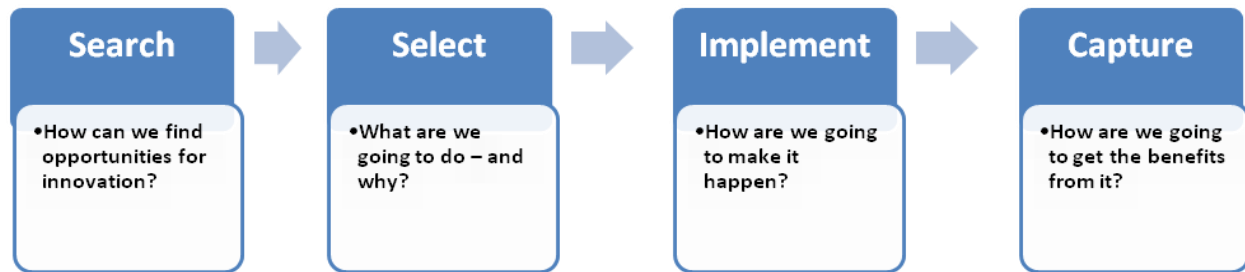


Figure 1. A simple model of the innovation process.
Source: Tidd & Bessant, (2009), *Management of Innovation*.

These traditional models are based on the idea that the internal knowledge of the organization can mostly suffice to improve and develop new products. The role of the customer is minimal, he is a passive actor and customer information is collected by surveys that aggregate the average customer in market segmentation. In that way the models are very much based on the product and the R&D laboratory processes.¹⁴ The user-centered innovation process is in sharp contrast to the traditional model where user's only role is to have needs which manufacturers then identify and fill by designing and producing new products.¹⁵

2.1.2 Research/technology-driven innovation

Research-driven innovation implies that companies are striving to gain a technological lead over the competition, allowing them to produce at a lower cost or to deliver a product that distinguishes itself from the competition. The source of research-driven innovation is, of course, research, but also the ability to translate research into marketable products.¹⁶

Although good innovation performance is a critical success factor for the survival of a company, internal R&D sometimes requires too long time to respond to the market signals.¹⁷ It has become evident that high R&D investment and having many scientists, engineers and other knowledge-intensive professionals in your organization does not lead directly to high innovation performance. Other aspects must also be considered.¹⁸ It is becoming increasingly

¹⁴ (Von Hippel, 1978, p.42)

¹⁵ (Von Hippel, 2005, p.47)

¹⁶ (FORA, 2005, p.29)

¹⁷ (Chesbrough, 2006, p.24)

¹⁸ (Norden, 2006, p.10)

apparent that focusing solely on research-driven innovation will not secure a competitive advantage in the longer-term.¹⁹

2.1.3 Price-driven innovation

Price-driven innovation is when cost efficiency is the main driver. It implies that companies are constantly striving to market a product that customers perceive as affordable, or at least being cheaper than the competitors' products. The primary source of price-driven innovation is cost reductions allowing companies to market their product at a competitive price and companies compete in the areas of organization, logistics, business ability and marketing.²⁰

2.2 Open innovation

Today, the common understanding of the innovation process builds on the observation that firms rarely innovate alone and that the innovation process can be seen as interactive relationships among producers, users and many other actors.²¹ The open innovation process is a continuous interaction between internal actors of a firm and external actors in its periphery.²² Information that creates solutions is moved from external actors into the innovation core of the firm.

The open innovation perspective seems to be very promising to counteract for innovation failure rates. Also because of the rapid evolvement of information technology that opens for more contribution from the customer. The open innovation approach seems to fit well with industries that are in close contact with the customer and the service sector seems to be as likely player in this field as manufacturing and high-tech industries. This evolution seems to be ongoing.

¹⁹ (Norden, 2006, p.11)

²⁰ (FORA, 2005, p.28-29)

²¹ (Laursen & Salter, 2006, p.27)

²² (Berthon, Pitt, McCarthy, & Kates, 2007, p.50)

2.2.1 User-driven innovation (UDI)

User-driven innovation is a relatively new phenomenon. Originally UDI was connected to innovations carried out by a consumer to increase the utility value of a given product, as opposed to a company innovation, which solely serves a commercial purpose.²³ Recent definition of user-led or user-driven innovation is when companies involve users in various ways in the innovation process. Users can be both end-users (consumers) and other businesses using your product or service (professional buyers). These users can then be divided into two groups, lead-users and main-stream users (see next chapter).²⁴

Traditionally, strategic management at companies has focused on sales, costs and profits, leaving the decision on 'what to produce' to internal R&D departments or external entrepreneurs. Today companies are increasingly using alternative methods to identify new opportunities to create value, areas where users' needs have not been met before, or where problems are currently unsolved. Because many of these opportunity areas are based on needs that users can not articulate themselves, traditional market research methods are not adequate. Increasingly, companies initiate the innovation process by using ethnographic methods in order to identify these new opportunity areas.²⁵

To sustain a competitive edge, more focus must be given to meeting users' needs and not simply those explicitly stated in market research. Rather those latent user needs which can be revealed by alternative analytical methods, and by the users themselves. This is what user-driven innovation is all about, determining a more systematic way to understand and develop solutions that respond to user needs.²⁶

²³ (Von Hippel, Thompke & Sonnack, 1999, p.18)

²⁴ (Norden, 2009)

²⁵ (Norden, 2008, p.21)

²⁶ (Norden, 2006, p.10)

2.2.1.1 Lead-users

Originally the lead user theory is based on Erich Von Hippels paper: *Lead Users: a source of novel product concepts* (1986) where the lead-user is defined as an early adopter in the diffusion of a new innovation. Lead users are defined as members of a user population having two distinguishing characteristics: (1) They are at the leading edge of an important market trend(s), and so are currently experiencing needs that will later be experienced by many users in that market. (2) They tend to innovate because they anticipate relatively high benefits from obtaining a solution to their needs.²⁷ Lead-users have tastes or demands that are ahead of the general market. They will only be a very small proportion of all users, most likely less than 10% of all users. Nevertheless they can be strategically important. This is so because their demands for a service can signal what will be the next generation of a service or product. By involving lead-users in the innovation process, companies can get valuable input on how to develop new products, services and other areas of their business model.²⁸

Main-stream users however are the majority of customers for any business, around 90-95% of all users. They constitute the fundamentals of the business revenue streams and are therefore a key reason for every company's existence.²⁹ Their opinions form the voice of the customer because of their mass majority. However what companies have to realize is that listening to the voice of the customer is not the same thing as seeking out and learning from lead users. This is a type of focus which neglects the lead users and they are regarded as outliers of no interest.³⁰

Moreover, studies on lead users show that they are very often members of a particular community or subscribe to bonus schemes and take an interest in responding to satisfaction level of e.g. stays at certain hotels, spas and alike.³¹ What traditional tourism literature tells us is that most of these innovations are coming from elite customers travelling as trendsetters almost like the great explorers towards new frontiers. They are first or early users trying to

²⁷ (Von Hippel, Democratizing innovation, 2005)

²⁸ (Norden, 2009)

²⁹ (Norden, 2009)

³⁰ (Danneels, 2004, p.21)

³¹ (Von Hippel, Democratizing innovation, 2005)

experience rare things to spice their life or add another place or trip to their belt.³² Long after this early development for a place or a package this will eventually lead to more consumption of this innovation sometimes leading to mass tourism.³³

Tourists can be producers and consumers, in other words, they can be innovators who also influence other agents (tour operators) with their information. The tourist experience is made up of multiple encounters where the tourist is an active collaborator. Some progressive companies seek to harvest the knowledge held by lead-users that can be intermediaries like tour operators or individual consumers (tourists). Networking, discussion groups and in-depth interviews can be utilized to tap knowledge of these unusually reflexive and creative individuals. In tourism, the most obvious example is where tourism companies have responded to the increased awareness of environmental issues amongst tourists, learned from them, and have innovated by designing holiday products that seek to integrate sustainable tourism practices.³⁴

Sometimes a new service or a product is created where an employee, often ‘on the floor employees’, recognizes an opportunity influenced by a user and forwards the message to the correct party inside the company. When this situation occurs employees are referred to as intrapreneurs.³⁵

“Yes, I think regarding lead-users with us, I haven’t thought of it this strategically but they are both those who are very loyal with us and these individualsⁱ and then the companiesⁱⁱ.”³⁶

*i) Referring to Mr. Margeirsson
ii) Referring to the tourism agencies*

³² (Shaw & Williams, 1994)

³³ (Mill and Morrison, 1998)

³⁴ (Hall & Williams, 2008)

³⁵ (Norden, 2008, p.23)

³⁶ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

2.3 Recent trends in tourism

Tourism is and has been revolutionized by new technologies, markets and organizational forms. Innovations even come from outside the sector in the form of new informational platforms. The internet has created new opportunities for tourism businesses to provide information and sales electronically. Tourists are becoming more dynamic by actively packaging their holidays through planning and booking, effectively becoming the mini version of tour operators with blending of tourism services and mass customization. This development has been enhanced by the internet so the individual tourist can more easily become an innovator by taking the lead in organizing holidays for groups of family and friends.³⁷ The origins of tourism services where processes are part of the product show that tourists are also co-producers where the quality of social interaction with both employees and other consumers is vital.³⁸

Service innovation is based on softer skills than manufacturing innovation³⁹ and service innovations are rather based on change of behavior driven by practical experience and less structured than in manufacturing and employees are more involved in the process.⁴⁰ Tourism firms operate in a sector characterized by continuous transformation and the competitiveness depends on their innovativeness.⁴¹

³⁷ (Hall & Williams, 2008)

³⁸ (Lehtinen & Lehtinen, 1991, p.287)

³⁹ (Thether, 2005, p.55)

⁴⁰ (Sundbo, 2001)

⁴¹ (Wahab and Cooper, 2001)

2.4 The innovation wheel; a model for mapping UDI methods

The innovation wheel is the analyzing model used as a structure for the Blue Lagoon case study in this thesis. The model has its origins in the work of J  rgen Rosted (2008) however a detailed description of the model and its steps are collected from the report *User-driven innovation – Context and cases in the Nordic region* performed by NICE in 2008.

The Innovation Wheel model describes a company’s innovation process and the involvement of users throughout the process in a consistent way. There are different approaches that companies use when working with innovation and they may use a range of different terms to describe the process. This model has been developed based on interviews with forty design and business consultancies in USA and Europe and their experience with innovation processes with a large number of companies.⁴²

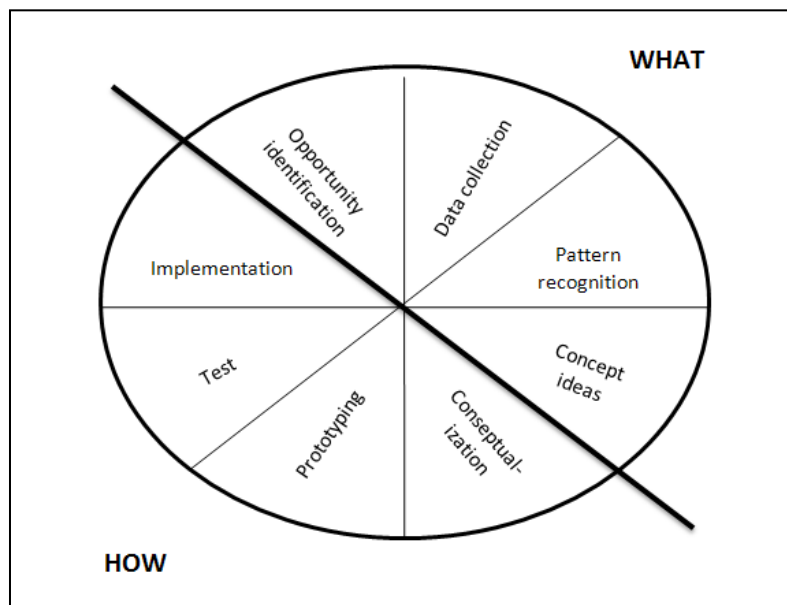


Figure 2: The Innovation wheel
Source: Rosted, J. (2008). *How to make concept innovation together with users*.
Copenhagen: FORA

⁴² (Norden, 2008, p.22)

The Innovation Wheel divides the innovation process into two phases. First there is the WHAT phase, which focuses on what to produce. Then there is the HOW phase, which focuses on how to produce it. Each phase is comprised of four steps. It is important to stress that an innovation process does not always include all eight steps the model describes, nor does an innovation process necessarily go through the steps consecutively. Sometimes, companies move between the different steps of the wheel.⁴³

The first crucial question to answer when launching the innovation process is the WHAT question: Why are people acting in the way that they do? And what problem should we then solve? The WHAT phase consists of four steps; opportunity identification, data collection, pattern recognition and concept ideas.⁴⁴

Each of these four steps is described as follows:

- 1. Opportunity Identification** – *During the opportunity identification step, business opportunities are discovered either within the firm by employees (intrapreneurs) or from outside the firm (often involving users). Often this step ends with an agreement on looking into an interesting field/ area where the company might have an opportunity in the future.*
- 2. Data Collection** – *In the data collection step, the identified opportunity is examined by collecting data about the users. Different types of data and other material are gathered using various methods in order to develop a better understanding of the users' articulated and unarticulated needs.*
- 3. Pattern Recognition** – *Data is analyzed in order to understand unsolved problems and user needs. The users are seldom involved in the pattern recognition process, but have (in some cases) been part of experiments related to the process.*
- 4. Concept ideas** – *In the concept ideas step, the patterns identified in the previous step are transformed into new concepts. The concept ideas are the outcome of the WHAT phase and can be physical or non-physical, a new business model, an adjustment of an existing business model, or a new way of meeting users' needs.*

⁴³ (Norden, 2008, p.23)

⁴⁴ (Norden, 2008, p.23)

The next crucial question to answer in order to implement any new business idea is HOW: HOW can this idea be used for business – does it create value? The HOW phase also consists of four steps: Conceptualization, Prototype, Test and Implementation. Each of these is described below:

- 5. Conceptualization** – *In the conceptualization step, ideas are described in detail in order to evaluate the economic potential.*
- 6. Prototype** – *In the prototype step, the first concrete example of a new product or service is created. Prototypes of physical products are often models or sketches. It can be harder to make a prototype of a service or a new business model. In the case of non-physical products and services, prototypes often have the form of descriptions or experiments. Users are sometimes involved in prototyping, particularly in the IT sector.*
- 7. Test** – *In the test step, prototypes are tested by future users. The idea behind the prototype and test steps is to provide an opportunity for users to react and provide input, and for the companies to make adjustments to the product or service.*
- 8. Implementation** – *In the implementation step, the innovation team might work together with other departments in the company (responsible for producing, marketing, and selling the product or service to market).⁴⁵*

⁴⁵ (Norden, 2008, p.24)

3. Research and findings

Because research in the field of user-driven innovation in the tourism industry is a relatively new subject there was a limited amount of second hand data research findings for this particular material. That is why most of the data collected in this study is from first hand, qualitative research. Except for the first section of this thesis there is a theoretical perspective chapter where quantitative, second hand data was supported.

3.1 Methodology

The topic for this bachelor thesis was chosen because of another research project which the researcher is involved in. The project was also used in a correlation to the thesis during its working period. It is a collective cooperation of researchers from five Nordic countries. The project is contracted by the Nordic Innovation Centre and Demirano Invest OÜ Nordic and the title is: *Today's lead user shows tomorrow's mainstream tourist offering* (project no. 08141). The main goal of the project aims to study lead users role in Nordic tourism business development. The project leader and owner is the Estonian researcher Eva Rikman. Einar Svansson M.Sc. and assistant professor is the researcher on behalf of Bifröst University and the Icelandic case. The bachelor thesis researcher had the privilege to be an assistant to Mr. Svansson in this broad project.

In this bachelor thesis an attempt will be made to affiliate these two studies together because of the academic connection of the topics. The positive thing about this method is that both researchers can support each other with their work regarding interviews and sources of references. They can take interviews more easily and because this research is primarily based on qualitative methodology, that way it can increase the value of this research and perhaps the interpretation of its conclusions.

Qualitative research form is a way to gain in-depth understanding on a certain subject. The most common approach for this method is to exploit interviews and focus groups. The interviews are usually a form of deep interviews where only one or two persons are interviewed for a long session of time. The method does not support statistical data or analysis

which is a form of quantitative research, but focuses on the objective view and experiences of respondents or interviewees. The results are then interpreted by an analyst that values the information received through certain parameters of measure.⁴⁶

The interviews were semi-structured with two forms of questions being used. The more dominating form in this research is open-ended questions. This approach gives the interviewee an opportunity to answer the questions laid for them with their own words and no optional answers are given to them prior. The other form is closed-ended questions where all options are presented with the question. This gives the interviewee limited options of answers for each question. The goal using the closed-ended question can be to retrieve information which was not obtained in previous interviews with an interviewee.⁴⁷

The nature of this study is an exploratory form. They provide an insight and understanding of the research material when there is a lack of information on the subject. It must be taken into account that the results from qualitative research are not easily generalized. The results are rather indicators of evidence that can be analyzed further.⁴⁸

3.1.1 Research methods

Because the purpose of this study is to increase understanding on the subject a qualitative approach was used, where interviews with managers and a customer of a company were the main method used for gathering data. All of the interviews were recorded with the interviewee's permission with a digital recording Dictaphone and later copied down word by word on a computer form. In all of the interviews except one there were two researchers for two projects which more likely increase the level of reliability of this research.

The advantage of using interviews for gathering data is that the researcher can correct any misunderstanding of the interviewee and adjust the questions to every circumstance. The main disadvantages however are that they can be difficult to execute, it can be time-consuming

⁴⁶ (Marshall & Gretchen, 2006, p.52)

⁴⁷ (Marshall & Gretchen, 2006, p.125)

⁴⁸ (Blumberg, Cooper, & Schindler, 2005, p.132-133)

to schedule and interview many people and personal opinions of the researcher can affect the conclusion.⁴⁹ They can also be expensive but that does not apply for this research.

The first interviews were rather informal which generated the opportunity for a more open discussion. There was one sequel interview where the same manager was asked with a prepared survey of questions in a more focused manner than the previous one. Closed-ended questions were more common in that interview. The reason for the prepared questionnaire was because the NICe project⁵⁰ required all of their case studies to have the same guideline in order to make it easier for comparison of the cases between the countries. Even though the questionnaire was structured for that project it did not affect this research in a negative way because much information was usable for the researcher. After the first set of questions another questionnaire was laid out in the same interview solely for this thesis.

Good cooperation with managers makes the research work easier when it comes to gather information. After the first interview with a Blue Lagoons representative the researchers received positive feedback from manager. She assured that the company would assist in any way possible to help with the research by granting interviews, refer to other managers regarding other information and assure interviews with them. Also, if requested, second hand data from within the company could be delivered.

3.1.2 Case study prerequisites

The interviews were taken by two researchers for two different projects. The goal was to gather information about the concept of *lead-users* for the NICe project and *user-driven innovation* for this thesis. The concepts being explored are connected academically as covered in the theoretical perspective chapter. Therefore both of the researchers used the opportunity to take the interviews collectively. In that way they could help each other with the whole interview process concerning: preparation, questioning, post-processing of the recordings and

⁴⁹ (McDaniel & Gates, 2006, p. 104-105)

⁵⁰ Project no.08141; *Today's lead user shows tomorrow's mainstream tourist offering for Norden (Nordic Innovation Centre) and Demirano Invest OÜ*

interpretation of the data. This would also save the interviewer's time by granting one interview instead of two.

Before the Blue Lagoon was chosen as the company for the case there were other recommendations. Total of four representatives from Icelandic companies and associations in the Icelandic travel industry were interviewed to study the potential features of user-involvement in their organizations. A detailed list of the organizations and the interviews is in appendix 4 however the names of the representatives will be held confidential. After interviewing all of the representatives UDI characteristics were identified in most of them. However the researchers decided that the Blue Lagoon was highly innovative and the most promising company to cover in this case study research.

During the analysis of this case another analysis was used as an example where the same method was used. It was a research conducted by Norden, Nordic Innovation Centre (NICE) in June 2008 and the company was the Icelandic computer game company CCP.⁵¹ The reason is that CCP was at that time considered a highly innovative Icelandic company with strong indicators of user-involvement. The same reason the Blue Lagoon was the chosen company for this case study. Both cases were analyzed using the Innovation wheel model. The case studies were held parallel so the researcher could distinguish a connection between the methods being used.

3.1.3 Interviews structure

A total of four interviews were taken regarding the Blue Lagoon case with three interviewees. In the first three interviews the interviewees were given minimum amount of information about the subjects being studied by the researchers. A wider range of discussion was covered such as the company's operation history. The customers and their involvement on product and service innovations were discussed in an open context. The concepts: user-driven innovation, user-involvement, lead-users and main-stream users were not mentioned. This was done so that the results from the interviews would not affect the conclusions. Sometimes the

⁵¹ (Norden, 2008, p.70)

interviewees have the tendency to please the researchers by answering their questions towards the subject being analyzed because they are aware of it. This method was supported in order to maintain neutral commentary of the interviewees. Because of this method some information surfaced by asking indirectly about certain subjects. It also occurred that the interviewees started covering other subjects than the ones being researched and then it was the researchers' role to quickly guide them on the right track.

The second interview was a lot more strategized than the previous one. In this interview the goal was to retrieve information which was not obtained in the first one. It was performed only by the researcher of this thesis. What differentiated this one from the other interviews was that the interview guide and questionnaire was sent via e-mail to the manager one day prior to when the interview took place. The reason was to make the manager aware of what the researcher was covering for both researches and what he was seeking in the upcoming interview. This gave an opportunity to present the fundamentals of the researches and to prepare answers to the questions.

The first questionnaire was assembled by Eva Rikman, the project manager of NICE project and edited by Einar Svansson (see Appendix 1). This questionnaire was used as a guideline through the interview. Many of the questions focus on the lead-user concept because of the NICE project, however in order to cover the field of UDI other questions were laid out in between the structured questions. Another set of questionnaire was assembled and laid out by the researcher regarding user-involvement specifically for this research (see Appendix 2).

3.1.3.1 Interviews information

The interviews were all in the form of deep interviews and they varied from 50 to 120 minutes each. All of the interviews were spoken in Icelandic and therefore every translation and quote in this thesis is performed by the researcher. Interviews with the managers took place at their work place. The patient was interviewed at the treatment facility.

- 1) The first interview was conducted September 15th 2009 in the Blue Lagoon headquarters in Grindavík. Interviewee was Magnea Guðmundsdóttir, director of public relations.
- 2) The second interview conducted September 18th 2009 at Blue Lagoon Reykjavík in Glæsibær. Interviewee was Ása Brynjólfsdóttir, chemist and director of the R&D department.
- 3) Third interview conducted September 24th 2009 in the Blue Lagoon clinic in Grindavík. Interviewee was Valur Margeirsson, treatment patient at the Blue Lagoon clinic in Grindavík.
- 4) Fourth interview conducted November 12th 2009 in the Blue Lagoon headquarters in Grindavík. Interviewee Magnea Guðmundsdóttir was interviewed the second time.

3.2 The Blue Lagoon



Figure 3. The Blue Lagoon

Source: <http://johnyonthespot.files.wordpress.com>

The Blue Lagoon is one of Iceland's most visited sites with more than 400.000 visitors annually. The bathing lagoon is 5000 m² and at each time the lagoon holds six million liters of geothermal brine all of which is renewed in 40 hours.⁵² Company turnover in the year 2008 was approximately 1.6 billion Icelandic kronur.⁵³

The company's main operations are categorized as follows:

Located in Grindavík

- Blue Lagoon Iceland spa and resort
- Treatment clinic
- Restaurants; Lava, Lagoon bar and Blue Café
- Conference and meeting facilities

Other locations:

- Online shopping store through the website: www.bluelagoon.com
- Shops with skin products and souvenirs located in Laugavegur, Glæsibær, Leifstöð Keflavík Airport and Illum Shopping Centre in Copenhagen
- Blue Lagoon Spa Reykjavik located next to the fitness centre *Hreyfing*, also owned by the Blue Lagoon

⁵² (Blue Lagoon (e.d.), 2009)

⁵³ See E-mail no.1 in Appendix 4.

The Blue Lagoon tries to use residential services from nearby companies. The involvement of residents is important for the company's image, it shows that the company respects their closest neighbors and tries to support them which creates a positive collaboration.

*"...we emphasize to try to do business with the service parties which are here in the area [...] we buy all the fish from Grindavík for example."*⁵⁴

Instead of thinking about the cheapest price for raw material from other suppliers they promote their closest environment by doing business with them. Users can be both end-users (consumers) and other businesses using your product or service (professional buyers).⁵⁵ The suppliers are therefore categorized as professional buyers. This creates a positive attitude and involvement of residents when for instance the Blue Lagoon is promoting new activities. If this is not done the company can not expect to count on the residents acting as collaborators or 'incidental' staff members.⁵⁶

⁵⁴ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

⁵⁵ (Norden, 2009)

⁵⁶ (Hjalager, 1997, p.39)

3.3 The Innovation wheel analysis

In the following analysis the innovation process of the Blue Lagoon will be run through the eight steps of the innovation wheel described in the Innovation wheel chapter. The model identifies features of innovation creation by the involvement of users of the companies' service and products.

The innovation process does not always include all eight steps in the Innovation Wheel, nor does a process necessarily go through the steps consecutively.⁵⁷ In the Blue Lagoon case every category will be covered to find out if it contains user-involvement. The main focus in this analysis will be on how new products and services are created through user-driven innovation in connection to the Blue Lagoons' bathing resort and skin products. Innovation and development in other operations of the company will be covered as well, but in less detail.

3.3.1 Opportunity identification

In this step sources of innovations are identified by different stakeholders of the Blue Lagoon; lead-users, main-stream users, employees and travel agents.

3.3.1.1 Identification of a lead-user

During the first interview with a Blue Lagoon manager the researchers inquired about 'a super user' or a user who went frequently to the lagoon or stood out from other customers of the lagoon. The manager pointed out a customer who had been there from the very beginning.

Valur Margeirsson is recognized as the inventor of the original lagoon by the company's managers and he has been doing promotional work for the company. He is a living proof of the true effectiveness of the lagoon and he shares his experience doing public presentations in cooperation with the director of public relations.⁵⁸

⁵⁷ (Norden, 2008, p.23)

⁵⁸ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

Mr. Margeirsson was diagnosed with psoriasis in the year 1960 and has been a treatment patient at the Blue Lagoon clinic since it was created in 1994.⁵⁹ He was the pioneer with strong characteristics of a lead-user who discovered the healing powers of the lagoon on the human skin in 1981.

“...it was in the year 1981, then I was really ill and no other option for me except to go to the hospital. At that time there had been some studies made here in connection with the Hitaveita Suðurnesja⁶⁰ and here had formed a lagoon which was drainage from this power plant which they were experimenting on. And since this was seawater and it didn’t make it worse that it was warm seawater, then there was an interview with the local engineer in the local newspaper here which said that employees had been dipping their feet into this mead and experienced some better comfort. [...] then I decided before the doctor put me into the hospital to go to the chief of the Hitaveita and try to get permission to try to go to this lagoon which had formed there and see if it would have any effect on the psoriasis.”⁶¹

While many people, including doctors, were skeptic on this unscientific treatment which was at that time not proven by any research Mr. Margeirsson did not let anything affect his determination and will power to find a cure for his disease. He was willing to risk his life trying something no man had ever done before.

“...he asked me if I was crazy to consider bathing in this because it was boiling hot and the area was covered in lava and I could easily cut myself and hurt myself or just simply kill myself doing this.”⁶²

When a user does the prototyping and testing spontaneously himself it is a sign of when a lead-user drives innovation.⁶³ As pointed out in the Lead-user chapter they tend to innovate because they anticipate relatively high benefits from obtaining a solution to their needs.

⁵⁹ (Brynjólfssdóttir, 2009)

⁶⁰ Hitaveita Suðurnesja: The regional heating corporation and proprietor of the lagoon area at that time

⁶¹ (Margeirsson, 2009)

⁶² (Margeirsson, 2009)

⁶³ (Norden, 2006, p.13)

“...I convinced him that I would be very careful and if he wanted I would sign papers saying that I would take full responsibility so in the end I got the permission [...] I got facilities there in a toilet facility behind the canteen which was behind the lagoon. I had to run about 200 meters before I got into the lagoon up on the bank and down on the other side, so it wasn't exactly the optimal facility but I struggled through it.”⁶⁴

Valur went on experimenting by frequently bathing in the lagoon. He had tried every other possible treatment with limited results. Though Mr. Margeirsson had psoriasis disease on a high level he experienced a certain need that was later experienced by many users in that market, the need to heal and protect your skin.

“...the first effect that I experienced from this was that the itch disappeared. This irritation in the skin disappeared in three days and ten days till about half a month after I went to the lagoon I started seeing new skin developing in between, so it seemed to be very effective and started to build up and the skin healed. So actually this is how it started.”⁶⁵

Mr. Margeirsson is also a member of *Spoex*, an Icelandic association for psoriasis- and exem patients. This community is a large stakeholder of the Blue Lagoon because of the positive effects of the lagoon on these patients' diseases. After his discovery he went to the association and together they started to build up a facility at the site so more patients could join in. Following this an agreement was made by *Spoex* and *Hitaveitan* to build a private facility for the members of the association. *Hitaveitan* then built a facility for the general public and started selling admittance.

“...then I contacted the psoriasis association and meet with them and told them what I had been doing and what I had experienced from it and in a continuation of that it was started to check if a facility could be placed here. So at first we borrowed a small shed with two rooms from Ístak which was a contractor here in the area [...] where we placed a shower facility. [...] Then a stairway was built into the lagoon so it was easier to enter the lagoon. Then it was the way that members of the association got a key to the shed and could come and use it. [...] Then it was probably in '83 when [...] Hitaveitan built a facility just right here near-by and then they started doing what they are doing today, just in a smaller scale, they prepared a bathing resort and that was more for the general public [...] and they sold admittance.”⁶⁶

⁶⁴ (Margeirsson, 2009)

⁶⁵ (Margeirsson, 2009)

⁶⁶ (Margeirsson, 2009)

In the beginning Mr. Margeirsson was a large stakeholder and had strong characteristics of a lead-user however today he does not fulfill all the indications of a lead-user. After the Blue Lagoon corporation was established he was not involved in the generation of new service or products which would fall under user-driven innovation. There was some research made by the R&D department to study the effectiveness of the lagoon by monitoring patients between treatment institutions.

“Yes well there has been some research which we participated in where it was examined those who went into the lagoon and those who went to the outpatient department in the general hospital and I think the results from that were positive and I think it was tested the treatment methods, the lagoon and the light treatment of the hospital department and even later on some crèmes and something that is connected to that”⁶⁷

This process would fall under the category of research-driven innovation because these studies were made by doctors and pharmacists and the goal was to deliver a product or service that distinguishes itself from the competition.⁶⁸ The focus was on the lagoon and its effects, the users were not the main driver. When the first moisturizing crème came out the first lead user or other customers were not involved in the developing process.⁶⁹

3.3.1.2 Wristbands and outdoor vending machines

Employees who are working outside the lagoon receive requests and comments from guests about various things. An example of this is the creation of wristbands which each customer carries on their arm while bathing in the lagoon. The customers were asking for beverages in the lagoon itself, especially on hot weather days. So the staff forwarded these requests to their superiors and the idea was put into test.

⁶⁷ (Margeirsson, 2009)

⁶⁸ (FORA, 2005, p.29)

⁶⁹ (Margeirsson, 2009)

“...then this summer we started selling products in the lagoon itself and we have been doing that in small amounts for some years now. The wristbands people receive, we increased the balance, it used to be 1500 but we increased up to 3000. [...] It was actually done by the initiative of the employees in the bathing area, they took the Coca Cola machines outside and the beer and started selling among other things these crêpes, which is this half melted ice-cream, very refreshing in the lagoon.”⁷⁰

Each band has a credit for 3.000 ISK which customers can use to credit cold beverages from vending machines in the bathing area. Vending machines were put outside and the sales increased instantly. In the beginning the credit was only 1500 ISK but later on it was increased up to 3000 ISK because of demand.⁷¹

3.3.1.3 The exclusive lounge

Another example of opportunity identification is when the exclusive lounge was created. It was because of the demand from groups who wanted to have privacy for them selves.

“I saw it was impossible to close the entire changing area when these types of groups come to us, however we wanted to keep them coming to us so we created a private facility for them. Also we created a private bathing area for those who wanted to pay extra for the privacy. A clear example of this is when a group of musicians came and requested to have a private area for changing and bathing. At first a part of the general changing area was sealed off for them, but we saw it was not a satisfactory solution to do always when this situation occurred.”⁷²

The exclusive lounge serves a group segment which has higher demands than the normal main-stream user. This group of clients has been growing the past few years so the demand for a private facility was essential. Even though Iceland has been going through economic crisis which has affected many industries the Blue Lagoon maintains a certain number of clients in this category of customers. It proves that there is a foundation for this group even when there is an economic downswing and many customers are spending less money on leisure

⁷⁰ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

⁷¹ (Guðmundsdóttir, Interview no.1; Blue Lagoon innovations, 2009)

⁷² (Guðmundsdóttir, Interview no.1; Blue Lagoon innovations, 2009)

and activity connected services. There is a group that has more budgets and it has demands for certain quality features. These demands come from customers on their own and also from agents from luxury travel agencies e.g. *Luxury Adventures* which has been guiding customers through helicopters and private planes to the site.⁷³

3.3.1.4 The outdoor bar

There is a new idea now which has not yet been put into action but it is on schedule; it is to create a bar which is located inside the lagoon itself. Then guests can order beverages in the lagoon itself while bathing. Because of the increase in outdoor selling of beverages the managers would like to try the idea of serving drinks in a new way.

“We are going to through preparation work now but likely we will put some money into building a small bar by the lagoon, some facility because we used to have coolers and boxes before, so this is very exciting.”⁷⁴

This also creates the opportunity to serve new drinks and in open containers. This will bring the outdoor providing of beverages to a new and advanced level. Because of close user observations of staff members they have noticed that this feature of service is popular and opens new opportunities for a service extension. Bathing customers have for example asked for alcoholic drinks in the lagoon which is quantified for every guest in order to prevent public intoxication; however with the new bar guests can buy the same amount of drinks but with more choices.⁷⁵ These drinks will sell for a higher price than the ones in the vending machines and therefore a new source of income is created. Sealed beverages fit into a certain category of luxury and are sold for a price accordingly. Open mixed drink served by a waiter creates another experience for the customer, it is a higher involvement service which is at a more luxurious level and thus can be charged higher.⁷⁶ Therefore this new feature will satisfy a new group of customers while the sealed and cheaper beverages might serve others. The new bar opens the

⁷³ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

⁷⁴ (Guðmundsdóttir, Interview no.1; Blue Lagoon innovations, 2009)

⁷⁵ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

⁷⁶ (Belch & Belch, 2007)

door for new services as well, perhaps in the future other refreshments will be offered at the bar as well like sandwiches and small courses.

3.3.1.5 Massage innovations influenced by treatment patients

The Blue Lagoon offers a variety of massages in the lagoon itself. There is a facility inside for massages; however the idea of offering the service outside comes originally from the treatment patients at the clinic. It began when the patients started to stay for a longer period of time for each therapy. For many the treatment is a relaxing period and one day there came a request for a massage in the bathing resort.

“...it started like this, people wanted to get a massage inside the lagoon and originally it starts with our patients so we come again to the core [...] and people are perhaps staying for a long time, they have asked for a massage and that is something the customer wants in the lagoon and that’s how it starts. We started giving a simple neck massage in the lagoon and then the customer started asking for a full body massage and that was added and then little by little we started working with these special chemicals, rubbing the silica [...] and there were opportunities to make the customer stay longer.”⁷⁷



Figure 4. Blue Lagoon in-water massage treatment
Source: www.bluelagoon.is

⁷⁷ (Brynjólfsdóttir, 2009)

The patients were covering and rubbing the chemicals on their bodies from the lagoon. Soon came the idea to rub silica and tiny lava pieces and make it a part of a massage treatment, the result was a new type of service. It started out in the clinic only with the patients but later it was offered to all guests in the general bathing area.⁷⁸

The treatment patients are considered the core customers of the Blue Lagoon because of their connections and great interests of the lagoons healing powers which make them large stakeholders.

“...even though this group of patients is small, a small portion of the turnover, the diamond is always the clinic. The source is from there, it is always the core in this company.”⁷⁹

The invention of the skin products and massages is all traced back to the treatment patients. They are a living proof of the effectiveness of the lagoons healing powers. Research was begun on different algeas which are only located in the Blue Lagoon because of the effects it had on the skin of those patients. This discovery turned out to become the main resource for the company to attract customers.⁸⁰

3.3.1.6 Skin product wrappings

Ever since the Blue Lagoon started to develop skin products the customers have been giving feedbacks regarding its ingredients, texture and wrappings. Around the year 1993 the treatment patients were the customers who inspired the creation of the first skin product, the moisturizing cream, which was fully developed and put for sale in 1995. After some testing period of the product the patients started asking for bigger tubes of silica and moisturizing crème to take home, even abroad.⁸¹ As a result the products were wrapped in bigger tubes for them. In continuation the products were put for sale in the store, which was at that time only at the Blue Lagoon in Grindavík. Later on more products were created and in different wrappings.

⁷⁸ (Brynjólfssdóttir, 2009)

⁷⁹ (Brynjólfssdóttir, 2009)

⁸⁰ (Brynjólfssdóttir, 2009)

⁸¹ (Brynjólfssdóttir, 2009)

Feedback and comments from customers about the products are given to staff on the floor inside the store and via internet through the “contact us” link. Development of new products was later influenced because of these new fields of feedbacks. For example the crèmes were put to the test in jars, because the experience for the customer to get the product out of a jar is different than from a tube.⁸²

3.3.1.7 Internet feedback from customers

Most of the customer commentary comes from the internet through the “Contact Us” link on the Blue Lagoon website. Comments are received every day regarding the bathing facilities and the products. On the website you can contact different department or employee depending on the nature of your business. This categorization makes it easier for the staff to handle each errand and more rapidly.

“Usually via e-mail, we have on our webpage on several locations a ‘contact us’ link and I for example receive all enquiries from reporters. Then there are others that are product related which go to Eyrún who handles the products. [...] and then somebody could have gotten red lips and gets some kind of allergic reaction or something like that and then we forward it to Ása, so we keep good record of everything like this.”⁸³

⁸² (Brynjólfssdóttir, 2009)

⁸³ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

3.3.1.8 The clinic activities



Figure 5. The Blue Lagoon therapy clinic
Source: www.bluelagoon.is

Staff in the reception at the clinic receives comments from customers who are treatment patients. They ask for more recreational activities to be available for them at the site. Recently the treatments have evolved in the direction that clinic guests are staying longer at a time and are even bringing spouses or the whole family with them. In some treatments it is recommended that you enter the lagoon two to three times per day for at least 45 minutes at a time which makes it difficult for the guest to leave the area. This calls for more recreation at the area during their stay.

“...they also say, those who work in the clinic, [...] that it is quite common that people group together and are taking taxis and exploiting the weekends together and we are equipping them with bicycles and walking sticks and of course there is a small gym at the site.”⁸⁴ [...] As well as assisting them with planning weekend trips by renting cars and driving around the country.”⁸⁵

Requests for these kinds of activities have reached employees at the reception who forward them to their superior.⁸⁶ However since the clinic is not the main focus in the Blue Lagoon operations today it is not clear that demands from this group of customers will be

⁸⁴ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

⁸⁵ (Guðmundsdóttir, Interview no.1; Blue Lagoon innovations, 2009)

⁸⁶ (Brynjólfssdóttir, 2009)

fulfilled in the nearest future. The main focus today is on development and expanding skin care products and increase the number of guests in the lagoon itself.⁸⁷

3.3.1.9 Tourists and tour operators as innovative users

Agents from travel agencies are highly important clients to the Blue Lagoon as for they bring group of customers to the site. These agents usually have strong opinions on the bathing facilities and especially the restaurants offerings.⁸⁸ The reason for their high interference and constant observations are because they have made certain promises to their clients regarding the Blue Lagoon offerings. The service being offered at the lagoon must coordinate with the service which has been presented to the clients. That puts the agent in the role of synchronizing the service being offered and the expectation of the customer.

“...the party that is planning a conference and lets say that a travel agency is throwing a conference and they for example are getting 200 people from Sweden and have pitched the group a lot, then it is important for them to work with a partner which they can rely on, so they are constantly watching over us and we hear from them instantly if for example the napkins are not in the right color. [...] Then with our clients which are larger travel agencies [...] those working in the sales department they are in a everyday contact with these parties, e-mail and telephone, so they receive a lot of comments directly.”⁸⁹

Agents from travel agencies are constantly communicating with certain contacts from the Blue Lagoon office and they discuss new ideas with them. Some ideas originally come from the agents and others from their clients. This characteristic of the agents as involvers and the tourists because of their influence on the tour operators with their comments categorizes them as lead-users in the innovation process for the Blue Lagoon.^{90 91}

⁸⁷ (Brynjólfssdóttir, 2009)

⁸⁸ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

⁸⁹ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

⁹⁰ (Hall & Williams, 2008)

⁹¹ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

3.3.1.10 Opportunity identification; conclusions

User involvement was identified on several occasions in the opportunity identification chapter. For example the user observations of employees in the bathing resort which generated the idea of the bar. Employees generate and receive user commentary in different areas; the lagoon inside and outdoors, internet, store, restaurants, cafeteria and clinic. It is often by the initiative of customers (main-stream users), as well as some treatment patients (lead-users) where the ideas for new service or product originate.

3.3.2 Innovation data collection

Data is collected by many methods for a new service to be recognized with the involvement of customers.

3.3.2.1 Focus groups with local customers

When the Blue Lagoon was reopened in 1999 the company hired an consulting company, PricewaterhouseCoopers, to gather and work with focus groups of local customers.⁹²

“...we have been buying questions [...] and we have also had focus groups here. [...] before we opened here in '99 we just wanted to hear what people expected from the Blue Lagoon. And before we launched an advertising campaign for the local market we finished the marketing studies and then the results were rationalized from those conclusions.”⁹³

The goal was to gather information about what customers expected from the Blue Lagoon and what is attractive to them. The Blue Lagoon was preparing to launch an advertising campaign to create awareness of the reopening for the local market and the advertisements were designed according to the information gathered in the focus groups.

⁹² (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

⁹³ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

3.3.2.2 Written customer feedback

Another method used to get customer feedback is by asking them to fill out a form after their stay. In the form there are certain questions regarding chosen service features which managers want to be evaluated. Customers can rank them according to their experience by marking in a service measure⁹⁴. There is also a comment box where they are free to make their own comments in writing. This method however has not been used for some time by the Blue Lagoon and is not currently an active method of getting customer feedback.⁹⁵

“...yes we have had these kinds of surveys [...] but this is not something that we do regularly but we have performed them and then just worked with them internally.”⁹⁶

The positive thing about these surveys is that the customer can fill them out privately and without giving his identity which gives him the opportunity to be honest in the evaluation. It can be a barrier for getting an honest opinion of the customer if they mediate it verbally to a staff member, especially if the customer has had a negative experience they do not share them all the time.⁹⁷

Research says the average business only hears from 4% of their customers who are dissatisfied with their products or services. Of the 96% who do not bother to complain, 25% of them have serious problems. The 4% complainers are more likely to stay with the supplier than are the 96% non-complainers. About 60% of the complainers would stay as customers if their problem was resolved and 95% would stay if the problem was resolved quickly. An unsatisfied customer will tell between 10 and 20 other people about their problem. A customer who has had a problem resolved by a company will tell about 5 people about their situation.⁹⁸ These percentages reveal that listening to the voice of the customer is crucial in order to identify their true opinions. By collecting more data on customer feedback those information can be valuable

⁹⁴ Service measure: a scale to evaluate service

⁹⁵ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

⁹⁶ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

⁹⁷ (Fitzsimmons & Fitzsimmons, 2008)

⁹⁸ (Fitzsimmons & Fitzsimmons, 2008)

for the company in order to improve their service and to prevent future customers from experiencing the same discomfort.

The negative thing about this type of survey is that they usually take more time than other ones. Not all customers have the patience of filling out a survey in writing; it is easier to do them verbally. The writing form can cause fewer surveys being filled out by the initiative of the customers. A customer often gives comments in the clinic or in the lagoon but it is not always by their initiative. Therefore it is important that employees are well motivated so the size sample will reflect the mean more effectively.

3.3.2.3 Employees as key collectors

It is company policy to keep all staff members well informed and encouraged to fulfill the goal of being the main arrival of tourists in Iceland and in the whole world even. Every employee works together towards the same goal which is to improve if possible and listen to comments and indications from customers. Frequently a new service or product has been created where an employee on the floor recognizes an opportunity and forwards the message to the correct party inside the company.⁹⁹ When this situation occurs employees are referred to as intrapreneurs according to description in the innovation wheel process.¹⁰⁰

The employees play an important role in data collection. Many innovations are discovered because of their participation in the innovation process. As mentioned in the previous chapter customers are not always willing to give feedback on their experience of products or service by their own initiative. Then it comes down to the dedication of staff members to collect customer feedback, especially those who are 'on the floor'. The staff is coming up with new innovations for the customers and they are doing so by involving the customers themselves.

Blue Lagoon staff is well motivated as discussed in the opportunity identification section. There is a special reward program which the company uses to encourage employees to sell more products and generate new ideas. The reward amount depends on three factors; total income of sales, level of work pressure and results from secret visits.

⁹⁹ (Guðmundsdóttir, Interview no.1; Blue Lagoon innovations, 2009)

¹⁰⁰ (Norden, 2008, p.23)

*“There is a company called Better Business and they send so called secret visits to evaluate our service. So the reward bonus depends on the experience of this secret guest which evaluates beforehand decided factors in tourism, the arrival and the number of guests. So it is the level of work pressure, income and secret visits that influence the bonus. The higher the income then the bonus pot will be bigger. But our staff, regardless of any money, they are very enthusiastic about selling and these recent years a very good selling culture has developed in the bathing area. So they just had more interest in selling more by the lagoon.”*¹⁰¹

If the staff feels that they can have effect on the development of product or service output and be a part of the innovation process then a special connection is created. They feel a certain responsibility to sell the offerings because they helped to create it.¹⁰²

3.3.2.4 The loyal customers

There is a certain group of users which the Blue Lagoon categorizes as loyal customers. They receive the company newsletter regularly and offer on products. By registering in the group themselves they show an interest beyond other customers of the company. Generally these users feel connected to the company with more adoration than other users which makes them want to keep track of new features of service or products.¹⁰³ These clients usually have strong feelings and opinions on the company and its operations.

Besides from receiving commentary via the internet or through staff members this group however is not contacted or involved in any kind of internal innovational work by the Blue Lagoon.¹⁰⁴

An exception regarding members of this group is some patients at the clinic. A number of them have been working with the R&D department regarding new treatments and others with a group of doctors in Germany.¹⁰⁵

¹⁰¹ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

¹⁰² (Fitzsimmons & Fitzsimmons, 2008)

¹⁰³ (Fitzsimmons & Fitzsimmons, 2008)

¹⁰⁴ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

¹⁰⁵ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

3.3.2.5 Innovation data collection; conclusions

The field where employees can receive comments from customers is at the Blue Lagoon itself. Employees who are 'on the floor' are located in the reception, the changing area, the bathing resort, restaurants and in the store. The office receives information through the internet via the 'contact us' link. Regarding the skin products there is a store on site which is the most receivable field/forum for receiving commentary from customers.

Other data collection methods were identified such as brainstorming with local users through focus groups and the use of written question forms for customers to fill out. Neither method is currently in use.

3.3.3 Pattern recognition

The pattern recognition step is performed internally amongst the company's managerial team. After collection of the data is done the Blue Lagoon staff extracts the information themselves without the involvement of users. It is the staff that analyses the information gathered. Meetings are held where the data is discussed along with the feedback from all of the sources the company receives and patterns are identified.¹⁰⁶

3.3.4 Concept ideas

The new main concept idea was gathered at a strategic group work session performed by the members of staff in the year 2005.¹⁰⁷ The result was the remaining slogan and mission statement for the future: *To create energy for life through the forces of nature*. Before that session other meetings have also been held with the top management team and main share holders where they make strategic decisions regarding future goals.¹⁰⁸ It is important for the success of the company that the shareholders and its top management team agree on the

¹⁰⁶ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

¹⁰⁷ (Brynjólfssdóttir, 2009)

¹⁰⁸ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

direction it is heading. These kinds of meetings are categorized as another kind of focus group work and it did not involve customers.

There are different focus group works sessions also held regularly by senior managers and shareholders where customers are not involved.

“...we worked with shareholders in a strategic work group and the board of directors worked with them, they were the representatives of our biggest owners.”¹⁰⁹

In recent years the company has been moving towards a more holistic image approach. The goal is always to work with the forces generated from the resources of the lagoon but now the company's operations spread to other connecting business areas. The forces of the lagoon have healing effects on the skin which lead to better health. Customers who live a healthy lifestyle often have the same consumer behavior and thus similar spending patterns.¹¹⁰ Therefore customers who are clients of the Blue Lagoon are also clients of other health related activities e.g. practice sports related activities and eat healthy food. That is why the Blue Lagoon branch in Reykjavik has joined the Hreyfing fitness club.¹¹¹

3.3.5 Conceptualization

This step is constructed internally amongst the Blue Lagoon staff. As discussed in the previous chapter it was entirely staff members and stakeholders who performed the strategic outline of the company's current mission statement and future goals.¹¹²

“...in 2005-2006 we had been spending a huge amount of work in connection to what we call strategic work for the company. How are we going to grow, how are we going to expand [...] and the focus was on the products, you know what were we going to do with them. And there we laid down a certain plan and a suggestion is made to enter this anti-aging market and take the first step in that phase and then position ourselves as high-priced and locate us in our own special stores.”¹¹³

¹⁰⁹ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

¹¹⁰ (Keller & Keller, 2006)

¹¹¹ (Brynjólfssdóttir, 2009)

¹¹² (Brynjólfssdóttir, 2009)

¹¹³ (Brynjólfssdóttir, 2009)

The concepts were partly driven by the R&D department. Therefore this step in the innovation process is research-driven.

3.3.6 Prototypes

When a new **service** is being developed the step of prototypes applies more to the methods used by the Blue Lagoon.

It can be hard to make a prototype of a service or non-physical products and therefore they often have the form of descriptions or experiments.¹¹⁴ A classic example when a lead-user is involved in a new service development for main-stream tourist offerings is one of the examples discussed in the opportunity identification step; when rubbing silica and tiny lava pieces to the body became a new massage treatment. The first concept idea was tried out on the treatment patient in the clinic who came up with the idea originally. Then more patients started asking for a massage which later developed into a full body massage. The next step was to offer this new service in the general bathing area for main-stream users.¹¹⁵

When a new **product** is created and the first units are being put out for customer usage the test step applies more to the Blue Lagoon methods than the step of prototypes. Regarding the skin products the Blue Lagoon does not involve their customers in the use of prototypes. However new products are initially produced in a limited edition before they are put for sale. In that way the product is put to the test for popularity and effectiveness. If they sell well and user commentary is positive then in continuance it is decided if more of the product should be produced.¹¹⁶ In a way this method can be categorized as a prototype however the first portion of the product is not launched strategically as a prototype but rather as a test of the product, this process is better described in the following test step.

¹¹⁴ (Norden, 2008, p.24)

¹¹⁵ (Brynjólfssdóttir, 2009)

¹¹⁶ (Brynjólfssdóttir, 2009)

3.3.7 Tests

The final step of bringing in new services and products for the Blue Lagoon is putting it to the test. Generally when new ideas and services are being developed because of customer demands they are conceptualized by the staff without the involvement of users and when fully developed they are tested by future users.

3.3.7.1 Products testing

An example of product testing is when the R&D department released their first skin product, a moisturizing cream, which was originally made because of a request by the treatment patients. The first portion of the product was not tested specifically as a prototype on the patients before sending it to the stores for main-users. It was fully generated in a limited edition and then given to them for testing.¹¹⁷ Thus testing is a method for the company to get feedback and make adjustments. This gives all users an opportunity to react and provide input on the product.

The R&D department is constantly working on developing new skin products with the resources located in the lagoon; silica, algae and minerals. The R&D department links researches as an innovation driver, not the users, to the skin care industry where the Blue Lagoon is a competitor. This kind of innovation is a type of research-driven innovation.¹¹⁸ Therefore many ideas and concepts of new products are developed within the R&D department without involving the customers. Even though the goal is to serve a customer need the innovation process excludes the users until the test step in the Innovation Wheel.

3.3.7.2 Service testing

A new service was offered to the customers when the demand for drinks in the bathing area developed. In the example of the wristbands and vending machines discussed in the opportunity identification the new service was put to the test on customers by placing the vending machines outside in the bathing resort so every customer could try them out. Every

¹¹⁷ (Brynjólfssdóttir, 2009)

¹¹⁸ (Norden, 2008, p.10)

guest that was going to bathe in the lagoon received a wristband in the reception. This method gave every customer the opportunity to try out the new service instead of trying this new feature on a certain group of customers as a prototype. The employees tracked the sales and added new products or increased the quantity of others by demand.¹¹⁹

“...the wristbands people receive, we increased the balance on it, it was 1.500 but we increased up to 3.000 ISK. So the people are using that money. It was actually by the initiative of the staff in the bathing resort, they just went outside with the Coca Cola machine and the beer and then started selling, among other things, these crêpes, which is ice-cream half melted but very refreshing in the lagoon...”¹²⁰

The result was reflected in the number of sales, the revenue did increase so that indicates that the new feature was popular among the customers.

3.3.7.3 Prototypes & Tests; conclusions

User involvement was identified in new service prototyping however for the skin products there was not a clear example of prototype usage involving users. Methods used during the process were receiving verbal feedback from treatment patients and user observation by staff members at the bathing resort. Experiments and discussions of massage prototypes with the patients were also notable.

3.3.8 Implementation

Since the release of the first skin product in 1995 and the offering of spa treatments involving massage therapies in 2003 the Blue Lagoon has increasingly been adopting more user-driven innovation methods. By involving the users more strategically the Blue Lagoon is aware that users are important stakeholders and their input is essential to gain a competitive advantage. User-involvement has continued to increase ever since.

¹¹⁹ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

¹²⁰ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

In the implementation step an innovation team works together with other departments in the company.¹²¹ This applies to the Blue Lagoon but nevertheless it does not involve its' users.

„Yes, Ása the one you met is the head of Research- and development department and though we don't call the department 'innovation' there are many new assignments which can be traced to that department. And then they work in a close collaboration [...] with other departments when a demand for a product develops or something like that happens.”¹²²

3.3.9 On-going development

Users are involved in the on-going development of the Blue Lagoon in several ways. After the launch of new features there is an open platform to receive user commentary regarding new products and services. Most comments are received through the internet via the “contact” us link on the Blue Lagoons' website, as has been discussed before.

Agents from travel agencies contact certain Blue Lagoons representatives in the sales office regarding group travels to the site. Often the groups experience many of the companies services in a compact package besides from the bathing resort e.g. the restaurants, conference facilities and spa treatments. Thus agents are constantly commenting on past experiences which they receive from their customers and use them to develop new packages or improve the previous ones. Agents and sales representatives are sometimes communicating daily with each other.¹²³

Patients of the treatment clinic are constantly working with doctors and pharmacists both in Iceland and in Germany generating new skin treatments and products. This develops into a long lasting cooperation between these parties. When patients have finished their treatment they report to the doctors on their recovery and long-term results from the program.¹²⁴

¹²¹ (Norden, 2008, p.24)

¹²² (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

¹²³ (Guðmundsdóttir, Interview no.2; Blue Lagoon innovations, 2009)

¹²⁴ (Brynjólfsson, 2009)

3.3.9.1 On-going development; conclusions

User involvement identified by communication through the Internet between the parties. Sales representatives communicate with agents from travel agencies via internet, telephone or face to face regarding group travels. Also patients communicate with doctors and pharmacists regarding on-going recovery of skin treatments.

3.3.10 Main conclusions of the analysis

The case for the Blue Lagoon case illustrates in different ways how the company can develop new outputs by enforcing various user-driven innovation methods. Because the company is close to its customers in several ways it has a unique opportunity to bring in new types of innovations in order to strengthen its position on the market. Different types of users were identified in the process and their characteristics analyzed in detail. The opportunity identification step was the largest chapter of the case categorizing different users influencing the innovation process.

The story of a great creation discovered in the start-up by a lead-user is covered in coordination with UDI theory. The clinic patients are acknowledged as the core customers of the company because of their high interests of the lagoons effect on their diseases. The tour operators are important clients as well because they represent a large group of customers, tourists, and play a big role as an intermediary between them and the company.

It was noticeable how the human capital was an active innovator or an influence on generating innovative processes in the case. By using several methods like close user observations, generating and interpreting user commentary in different areas the employees managed to inspire new ideas. The company has a human recourse strategy staff which motivates the staff with its systematic measures and payback encouragements.

The opportunity for receiving user feedback is widespread around the company's operations, for example via internet or the staff 'on the floor'. Because the products and services are offered on site it creates the opportunity for the company to reach and receive commentary from the mass of Blue Lagoons users, the main-stream users.

4. Main conclusions and recommendations

In the beginning of this thesis a research question was laid out to analyze the efficiency of user-driven innovation in a highly innovative Icelandic company. The question was:

“How can a company in the field of tourism systematically use their users of products and services to generate new offerings and improve their previous ones with user-driven innovation methods in order to create value, differentiation and gain a competitive advantage?”

Based on the insight to the Blue Lagoons’ innovation process and other recent research on what companies are doing today, it can be concluded that innovation processes are increasingly involving users and focus more on addressing unacknowledged user needs.

After analyzing the interviews there were several indicators of innovation drivers. Both research- and user-driven innovations were identified. Price was not a driver in any of the examples collected from the data by the researcher. The reason might be that the company offers products and services processed from unique resources and therefore the outputs can be priced higher than their competitors.

If the customer is being more acknowledged as a new source of ideas and becoming more involved in the innovation process as a partner it is a clear sign of UDI characteristics.¹²⁵ The managers who were interviewed during this research are aware of the importance of customer feedback and involving them when it comes to identifying their demands and needs. It has been demonstrated in this research that users are involved in the innovation process on several occasions. A group of users has been categorized as core customers and they have been involved in user- and research-driven innovations. Another group is categorized as loyal customers and they have shown indications of interests beyond the main-stream users.

One objective of this research was to identify opportunities for further innovative activities and the researcher has discovered a gap where the managerial team or the R&D department can apply to their innovation process. The loyal customers are a group of users who feel they are connected to the company with more adoration than other users which

¹²⁵ (Hall & Williams, 2008, p.3)

makes them want to keep track of new features of service or products.¹²⁶ These clients usually have strong feelings and opinions on the company and its operations. Despite of these elements the company does not exploit these users with the innovative methods which are introduced in the theoretical chapter. By involving the loyal customers group in the innovation process might be a good way to get new ideas. For example it is possible to contact this group via e-mail and ask if some members are interested in working in a focus group with the staff regarding a new product or service. By bringing in this method the Blue Lagoon can possibly be even more creative in generating new ideas for its business and gain a competitive advantage over its competitors and be elite in its category.

Other key players in the innovation process are the highly motivated employees who are in direct contact with the main-stream users of the company. Managers have created a systematic reward program which encourages them to be intermediaries between the managers and the users regarding innovative ideas. Their intrapreneurial features fit the innovative characteristics in the innovation wheel model.

After being pointed out by a manager of the Blue Lagoon to a customer who had been there from the very beginning the researcher interviewed a user who turned out to have major characteristics of a lead-user. He was an early user trying to experience a rare thing to achieve a certain goal. Long after he discovered the powerful sources of the Blue Lagoon it lead to more consumption of this innovation eventually leading to mass tourism.

It has been demonstrated that the Blue Lagoon is a progressive company that seeks to harvest the knowledge held by lead-users that can be intermediaries like tour operators or individual consumers (tourists). Because tourists have influenced tour operators with their information they fit into the category of lead-users as well as these agents for their strong opinions on the company's offerings and constant communicating with certain contacts from the Blue Lagoon office.

It is often so that customers do not express their opinion on their own experience unless asked.¹²⁷ One suggestion is to create a field/forum where every user receives a short survey in the form of open- and closed questions where a research team by innovation staff members or

¹²⁶ (Fitzsimmons & Fitzsimmons, 2008)

¹²⁷ (Fitzsimmons & Fitzsimmons, 2008)

managers can explore features they want to evaluate. In that way the research team can receive a lot more information by collecting and processing the samples taken from the surveys which will reflect the mean more reliably. The sample can express users' image on the Blue Lagoon because of increased number of samples. The users will not be obligated to take the survey but more customer feedback is mediated through their experience from a visit to the lagoon, clinic or from a skin product usage. In that way the Blue Lagoon can gather information and use them to improve existing products, create product extensions or totally new ones.

The Blue Lagoon is a promising company and even unique in its field. However there are competitors in any business and if the Blue Lagoon wants to bring new innovative ideas to its service and products it is recommended that they use more methods regarding gathering information from their users and involve them even more. Companies can better understand the effectiveness on their offerings by collecting data from their users and explore their opinions and experience.

5. Final words and further discussion

Because the subject of this thesis is relatively new and the amount of research was limited it became even more exciting to study the subject. That is why the reader should have a certain notice on the reliability of the conclusions of this research because the applicable academic theory is recent and it is only possible to compare methods and conclusions to similar cases. Although it may often apply when new types of research take place. This research however has been very informative and shown the researcher a new aspect in the field of innovation.

Of course there could have been other ways to perform this research and perhaps this one will inspire other researchers to study another aspect of user-driven innovation with different methods. This research did not explore other types of models for mapping user-driven innovation other than the innovation wheel. The case study did not have a defined time period which was analyzed specifically; the focused subject is studied through the entire lifecycle of the company. The reason was to get the most evident examples of UDI in the companies operations. If the defined period would have been more limited it is likely that certain characteristics that were identified in this research would not have been noticed.

There is a categorization of different types of customer groups in the case study however different classifications may have been made, for example a clear distinction between local and foreign customers or between different nationalities. Of all Blue Lagoon's operations the case study covers the bathing resort and skin products in most detail regarding UDI, other operations are less emphasized. It could have been possible to study different identifications of UDI between the Blue Lagoon in Grindavík and in the Reykjavík branch.

Of those user groups that were involved in the user-driven innovation being researched the main focus was on lead users, main-stream users were less emphasized. It would have been interesting to interview more lead-users like Valur Margeirsson during this research; however it was very difficult to reach those other users that were pointed out by managers of the company. Another possibility would have been to interview tour operators, a different type of lead-user, and analyze their perspective on the subject.

The center of this thesis is the case study research where the innovation wheel model is used as a structure to identify user-driven innovation. There is a specific critique on categories

of the model the researcher would like to point out. The steps of Prototype and Testing were unclear when the analysis in this case was performed. There is not a clear distinction between these steps when it comes to categorize UDI methods. In the Test step it seems like the product or service has reached the market for retailing although comments from users are still being received and changes being made before the final version of the product are put out for sale.

The Prototype step is for receiving customer commentary to gain a new perspective and a fresh aspect on the product before it is finally put to the market however this seems to be still happening during the step of Testing. There is a slight difference though because in the Prototypes step lead-users or a special focus group is being consulted with before products are put for sale. However in the Testing step the products have reached the market and commentary from main-stream users is being processed. So when it comes to analyze the involvement of the users in the innovation process the distinction is not very clear. However this critique confirms a remark that was laid out by the author of the model which was that the process does not necessarily go through the steps consecutively in the steps in the innovation wheel. For the future purposes of supporting this model it is recommended that a more clear definition between these steps is made.

Taking all perspectives and conclusions into account this method of using the innovation wheel to map user's involvement in innovation seems very promising for future work in this field. This is in line with practical applications of theoretical models and the progressive theories of open innovation like the lead-user concept. Organizations can gain insight and use the customer more cleverly by using such methods but most important is to have the right view on the customer and to regard him as a valuable source of new ideas.

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