Social Entrepreneurs and Lead Users: The Case of the Blue Lagoon, Iceland*

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Abstract

Social entrepreneurs innovate to solve social problems, often related to health. Lead users innovate if extreme needs call for a better solution that is not yet available in the market/society. There is an opportunity for expansion of concept, looking more closely at the impact and evolution of health and spa organizations that start with a community-based non-profit mission. This is a case study using historical data from Iceland and interviews with managers and network partners of a recent important geothermal destination, the Blue Lagoon spa. The case provides an interesting opportunity to apply social entrepreneurship and lead user lenses to explore the history of a health and spa destination. Initially, the idea came from trials of patients with psoriasis from the Spoex foundation, who used the silica- and mineral-enriched wastewater from a geothermal power plant. These treatments led to development of a world-famous health clinic over the course of 25 years. The healing effects of the water have been scientifically confirmed. Parallel to this innovation, the organization developed a mass tourism spa with 1 million visitors annually. Another increasing field for the Blue Lagoon has been skin care and anti-aging products using the water from the lagoon. The tourism spa and health destination history could benefit from being analyzed from the perspective of social entrepreneurs and lead users.

Keywords

Entrepreneurship, health care market, tourism, Iceland

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Emprendedores sociales y usuarios líderes: el caso de Blue Lagoon, Islandia

Resumen
Los emprendedores sociales innovan para resolver problemas sociales, a menudo relacionados con la salud. Los usuarios líderes innovan si las necesidades extremas requieren una mejor solución que aún no se encuentra disponible en el mercado o en la sociedad. Existe una oportunidad para la expansión del concepto si se observa más de cerca el impacto y la evolución de las organizaciones de salud y spa que inician con una misión sin ánimo de lucro con base en la comunidad. Este es un caso de estudio que utiliza datos históricos de Islandia y entrevistas con gerentes y socios de redes de un reciente destino geotérmico importante, el spa Blue Lagoon. El caso ofrece una oportunidad interesante para aplicar emprendimientos sociales y la perspectiva de los usuarios líderes a fin de explorar la historia de un destino de salud y de spa. Inicialmente, la idea surgió a partir de las pruebas realizadas en pacientes con psoriasis de la fundación Spoex, quienes utilizaron el agua residual enriquecida con sílice y minerales proveniente de una planta de energía geotérmica. Estos tratamientos llevaron al desarrollo de una clínica de salud reconocida en el mundo en el transcurso de 25 años. Los efectos curativos del agua son científicamente comprobados. Simultáneamente con esta innovación, la organización desarrolló un spa turístico masivo con un millón de visitante al año. Otro campo creciente para Blue Lagoon han sido los productos para el cuidado de la piel y de antienvejecimiento que utilizan el agua de la laguna. La historia del destino turístico de spa y salud se podría beneficiar del análisis realizado a partir de la perspectiva de los emprendedores y de los usuarios líderes.

Palabras clave
Emprendimiento, sector salud, turismo, Islandia

Empreendedores sociais e usuários líderes: o caso de Blue Lagoon, Islândia

Resumo
Os empreendedores sociais inovam para resolver problemas sociais, com frequência relacionados à saúde. Os usuários líderes inovam se as necessidades extremas requerem uma melhor solução que ainda não se encontra disponível no mercado ou na sociedade. Existe uma oportunidade para a expansão do conceito se observamos mais de perto o impacto e a evolução das orga-
Introduction

There is an ongoing paradigm shift toward greater open innovation and new responsible business solutions with foundations of cooperation and strong relationships with customers and network partners. Social entrepreneurship incorporates co-creation and a strong network lens and strengthens the perspective that innovative actors can be anywhere in the network of the potential organization. The lead user (LU) concept defines what role, characteristics and impact the leading innovative users can attain in the innovation process.

The paper is organized as follows: The theoretical background of the main concepts will be presented first, followed by the methods used for gathering empirical data. The main findings of the case study will then be presented, and the last part will cover the discussion and importance of this research.
Social Entrepreneurship

The World Commission on Environment and Development was founded by the United Nations in 1983. Four years later, the commission issued the Brundtland report, *Our Common Future* (Brundtland, 1987), in which sustainable development was first defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987, p. 43).

The report discusses the current situation and outlook in environmental issues and warns that modern living habits can create human suffering and environmental degradation. Since its introduction, the concept has developed into a three-aspect long-term perspective, in which economic, social, and environmental dimensions need to be in balance. Triple Bottom Line is a popular version of the concept with its 3P as people, planet, and profit. A related version is the 3E with the dimensions of economics, environment, and equity. The core thinking in all these versions is that if one dimension is to survive then all three parts need to be balanced in a coherent way.

Many organizations have taken this seriously and have accepted their impact on society and the environment. The Triple Bottom Line has evolved into green audits of the holistic impact of corporations in which the environmental impact (and even social impact) has been measured (Elkington, 1998). The vision of sustainability is the long-term use of natural resources for human consumption and welfare in an open society based on creativity and security, in which all individuals take part and belong. In a sustainable society, all stakeholders work together to build up and invest in the local environment in a sustainable manner (Rogers & Ryan, 2001; Taylor, Fletcher, & Peljo, 2006). The public tends to understand sustainability as a mission for mankind to survive and prevent big environmental disasters. The practical and academic debate is more complex sometimes, but the focus is on a sustainable future welfare for mankind, in which nature is only a tool to accomplish that mission (Jamieson, 1998).

Social entrepreneurs have been labeled social innovators (Casson, 2005; Certo & Miller, 2008). The active ingredients of social entrepreneurship are not new but the concept has gained momentum recently because of the shortcomings of other business models. There are many descriptions and definitions of social entrepreneurs. The social entrepreneur combines his passion with discipline to solve social problems, pursuing both financial and social return on investment. It has been
called a “double bottom line,” in which social impact and profitability are balanced. This is connected to the sustainability triangle and the “triple bottom line” concept.

Social entrepreneurs tend to balance the interests of multiple stakeholders. The social entrepreneur can go over the boundaries of classic rigid business models, using new important structures (Dees, 1998; Fowler, 2000; Mort, Weerawardena, & Carnegie, 2003), the profits of which can be used to help a disadvantaged group. Social entrepreneurship is defined as a group (or a person) that creates social value by making the most of an opportunity with resourceful innovation processes and risk taking (Leadbetter, 1997; Peredo & McLean, 2006).

The importance of the entrepreneurial network is that the entrepreneur is socially constructed in a network of stakeholders. The mission is to embrace opportunities to solve problems with innovative solutions that will give entrepreneurs a legitimate status over time (Neck, Brush, & Allen, 2009; Mair & Noboa, 2003; Uzzi, 1997).

Many social entrepreneurs have impressive leadership skills and passionate personalities that are fit to pursue a long-term vision (Bornstein, 1998; Thompson, Alvy, & Lees, 2000). Green social entrepreneurship uses opportunity spaces that can be based on environmental or sustainability trends (Cohen & Winn, 2007; Dean & McMullen, 2007). Environmental issues are important social problems. The sustainable entrepreneur (ecopreneur) often makes his living through sustainable use of outputs aiming for zero waste, or better natural resource use (Linnanen, 2005).

The literature covering the typology of social entrepreneurs is extensive. An interesting contribution is made by Zahra, Gedajlovic, Naubaum, and Shulman (2009), in which they use motives, processes, and ethical challenges to classify social entrepreneurs into three types: social bricoleurs, social constructionists and social engineers. Social bricoleurs discover local opportunities and use their personal motivation, expertise, and resources to create social wealth. They are on-site to spot the needs and opportunities that others don’t recognize. They are also very clever in gathering resources and effectively exploiting them to deliver services to the disadvantaged. Social constructionists build innovative structures to address social needs. They repair the social fabric within existing social structures and address needs left uncovered or unmet; they need to attain human resources and financial backup to fulfill their objectives and expand; and they often apply collaborative ventures to grow their organizations. Their long-term viability often hinges on the ability to staff the new organization with professional employees. Finally,
social engineers create new systems by replacing the existing ones with large-scale lasting structures. They are important agents for social change (Zahra et al., 2009).

Lead User Theory

There is a shift of paradigm toward a more open innovation. Increasing the speed of information and communication has been a catalyst to open the innovation process and to examine the potential innovative role of users.

The innovation perspective focusing on users has gained momentum in recent years (Bilgram, Brem, & Voigt, 2008). The conventional view of customers as passive and not proactive actors (von Hippel, 1978) has been challenged in recent decades by various researchers who note that there is also a more active innovative role for customers (Laursen & Salter, 2005 von Hippel, 1988). The tourism organization has experienced this with the opening of new platforms for empowered customers to plan their trip with a mouse click and to comment on the service and design offered. An interesting concept that is a part of this more open innovation evolution is the lead user theory that defines what role, characteristics, and impact the leading innovative users can attain in the innovation process.

The lead user concept introduced by Erich von Hippel (1986) originally looked at the sources of innovation in manufacturing and high-tech industries. Recently, the focus has partly shifted to the development of outdoor sports equipment, in which many major innovations were originally developed by users, not manufacturers (Shah, 2000).

Research on lead users emerged from research into sources of innovation (von Hippel, 1988, 2005; HHhMorrison, Roberts, & Midgley, 2004). Users occasionally start the innovation process (von Hippel, 1988; Shah, 2000), and innovation comes more frequently from the lead users (von Hippel, 1986; Urban & von Hippel, 1988; Shah, 2000; Morrison, Roberts, & von Hippel, 2000; Franke & von Hippel, 2003; Franke, von Hippel, & Schreier, 2006).

Recent research papers describe diverse fields and subjects: information technology (IT) innovations developed by libraries that were found to have potential value as commercial products sold in the marketplace (Morrison et al., 2000); co-developers in customer networks (Jeppesen & Molin, 2003); and communities supporting innovative activity among end-users (Franke & Shah, 2003).
The lead user theory has a history of pointing to users as potential innovators. Lead users are defined as having two characteristics: “Lead users face needs that will be general in a marketplace - but face them months or years before the bulk of that marketplace encounters them. Lead users are positioned to benefit significantly by obtaining a solution to those needs” (von Hippel, 1986, p. 796).

The user can be inside or outside the traditional boundaries of the organization, much in line with recent lenses of network theory and stakeholder models.

The lead user can be an analogous field, such as ABS brakes in cars, which came from the field of aviation (Tidd & Bessant, 2009), or an accidental entrepreneur who started a company because of his own experience—using his own innovative product or service that wasn’t available in the market (Shah & Tripsas, 2007). The lead user can also be an employee with a hobby that can be a source of ideas in the internal process of innovation in his firm—a sort of “intrapreneur” (Kotro, 2007). Users with similar interests and needs often form user innovation communities (von Hippel, 2005; Hienerth, 2006).

The lead user concept has been tested extensively and has been confirmed as a valid theory with quantitative research data as a driver of highly novel product ideas (Kratzer & Lettl, 2009). The study by Franke et al. (2006), for instance, confirms with strong data the basic tenets of the lead user concept (Hienerth et al., 2007). Lead users demonstrate stronger innovativeness than more ordinary users and might therefore be more likely to adopt them (Schreier et al., 2007). We do, however, need to keep in mind that these findings are based on innovation in manufacturing industries.

A frequent source of empirical data in lead user research in the last decade is the field of outdoor sports equipment, especially from extreme sports. In general, the recreation and sport markets are rich in examples of user innovations. Shah (2000) explored the sources of innovation for equipment, which is used in specific areas of sports like snowboarding, skateboarding, and windsurfing, describing that end users invented the first versions of the basic equipment in each of these fields. Outdoor equipment companies have been founded by

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a lead user, such as in the evolution of the British outdoor equipment industry (Parsons & Rose, 2004).

Customer-driven innovation is not a significant factor in tourism research, although it is not a new thing if we consider the evolution of many famous destinations and trends in tourism that is very much in line with the lead user theory. Tourism is not a common field for studying lead users. Examples of research papers are rare: Duverger and Hassan (2007), who address the defectors (ex-customers) of a hotel, and Baglieri and Consoli (2009), who investigate virtual communities and web design. The Nordic Innovation (NICe) report (Svansson & Rikmann, 2011) analyzed lead users in Nordic and Baltic countries. The outcome was that Nordic companies appear to be unfamiliar with the lead user concept and do not use systematic processes to harness the knowledge from users (customers).

**Methods**

This is a qualitative case study that uses observation, historical data, and interviews with managers and network partners. The aim of the study is to:

- examine the innovation process of the case company with the lead user and social entrepreneur lenses;
- examine the innovation process and the innovation strategy of the case company;
- study how the case company and lead users interact in the innovation process; and
- appraise the social entrepreneurs’ importance in the case company.

The case was chosen with a two-step selection process. The first step was to consult with reference groups of experts from the tourism and travel field in Iceland about the most innovative organization in the country. Then, the author took pilot interviews with target cases to find out which companies would be the most pertinent case studies. A total of 27 interviews were used in the data analysis. The interviews were all in the form of digitally recorded semi-structured interviews. The data was organized into topic themes and analyzed with theme coding.
Case Study: The Blue Lagoon

Iceland, a Nordic country, located in the Atlantic Ocean. It is relatively large (approximately 100,000 km²) with a rather small population of approximately 340,000 inhabitants. Iceland is a growing tourist country, with over 2 million visitors in 2017. The Blue Lagoon is one of Iceland’s most visited tourist sites, with approximately 1 million guests last year. The lagoon first formed in 1976 from waste water released from a new geothermal plant in the Reykjanes peninsula. The ingredients of the lagoon (silica and algae) have been scientifically confirmed to have healing powers, which lead to better and stronger skin texture and anti-aging effects.

The market segments are three: public, high-class (celebrities), and psoriasis treatment patients. There are two lagoons—a large one for the public and a smaller one for psoriasis patients. The treatment clinic has hotel accommodations used mainly for patients undergoing treatment. The high-class segment currently comprises mainly an executive lounge, but the company has plans to build a 5-star luxury resort and a third lagoon.

The Blue Lagoon has a long-term innovation strategy that is based on health tourism and a sustainable green foundation. The image is connected to a strong natural, holistic experience by the customers who visit the lagoon. The company uses renewable energy and organic methods; the lagoon is not artificially heated, which means the company must cool it down for customers. The slogan and mission statement of the Blue Lagoon organization for the future is “To create energy for life through the forces of nature.” In recent years, the company has been emphasizing its nature-based brand in a high price range, almost as a luxury brand in competition with cosmetics (skin care industry).

The psoriasis patient’s foundation, SPOEX, later built a facility at the site so more patients could benefit. Soon thereafter, a business organization was founded, a facility for the public was built, and they started selling admittance. Mr. Sæmundssen, the CEO of the Blue Lagoon organization, is a physician who saw the opportunity early on to build a clinic and a spa for tourists visiting Iceland. SPOEX has been influential in cooperating with the business venture of the Blue Lagoon.

The outcome is a good balance between health programs for skin patients and a tourist relaxation site in a unique environment that National Geographic magazine has labeled as one of the “water wonders” of the world. The founders of the Blue Lagoon are very aware of the beginnings of the company with the psoriasis
patients at the core and are keen to preserve that cooperation in order to create social value and at the same time build a profitable business organization.

The main mission of the R&D department is green chemistry. The Blue Lagoon is a type of test bed for new skin products, which closely monitors the feedback from customers in the bathing area and in the retail shop. Research and innovation institutions have helped to create new opportunities with experiments in the production process of the algae that is an important ingredient in the skin products. One project funded by the Technology Development fund (RANNIS) has increased algae production 10-fold. Another new process has been designed to grow the algae carbon-free. The new technique binds CO₂ from the geothermal plant. This can improve Blue Lagoon’s position in the skin care products market.

The organization has been working closely with architects and designers to create the brand’s organic image. Scientific research has been an important driver of innovation in the Blue Lagoon and the treatment patients have been involved in some innovations that have later been commercialized. A recent example of this leading customer group is a new clinical research project about psoriasis that is open for this group to take part in trials. Doctors such as skin specialists and research scientists have been working closely with the company. An example of this is research on the anti-aging effects of the lagoon, led by German scientists. Today, the Blue Lagoon operates a retail shop on site, as well as an online shop, selling skin care products.

Spa and treatment specialists have worked on new types of massage in close cooperation with customers, managers, and employees. The Blue Lagoon offers a variety of massages, but the idea of offering the floating massage in the tourist lagoon comes originally from the treatment patients at the clinic. For many clinic patients, the treatment is a time for relaxation; one day, the clinic received a request for a floating massage in which customers wanted a massage in the lagoon. They started with providing a simple neck massage in the lagoon, and soon customers started asking for a full-body massage, working with the lagoon’s special chemicals. Patients were covering their bodies with the silica and special chemicals from the lagoon. Soon, the idea developed to rub silica and tiny lava pieces as part of a massage treatment, which resulted in a new type of service offered. What started out at the clinic was later offered to all the guests in the general bathing area.

Customers’ experiences are based on the unique lagoon surroundings, where arts such as ballet and music concerts are used to elevate the customer’s experiences, using all senses. Sometimes the concerts are a surprise, and the management
(customer experience manager) models the program in line with the “Disneyland” culture and casts, using real actors to mingle with the guests.

The Blue Lagoon attracts many celebrities, Hollywood actors, music bands, and elite customers. The exclusive lounge serves a market segment that has higher demands and other needs than the usual, mainstream user. The exclusive lounge was created because of the demand from individual celebrities and groups who needed more privacy. These customers require quality features like privacy and space, demands that came from both customers and tour operators. An example of a tour operator is Luxury Adventures, which guides elite customers and transports them to the site in helicopters and private planes.

Tourists influence tour operators with their comments. Tour operators are constantly commenting on past experiences they hear about from their customers and use them to develop new packages or to improve previous ones. The agents are intermediaries, and this interaction is a source of lead user and co-creation effects in the innovation process of the Blue Lagoon.

Analogous fields are an interesting source of innovation in this case, fields like organic sea products, as well as medical, health, and cosmetic products. An example is the forming of a strategic innovation group in 1997; the specialists were an Icelandic designer working in Milan and a small French company specializing in organic seaweed products. Together with the Blue Lagoon management, they created the strategic foundation for its line of skin care products. They met with the French company at a cosmetics trade show in Italy and soon realized that they were dealing with similar problems and tasks, trying to market products based on organics from saltwater.

Discussion

There are limitations to the findings using only one case study. More data are needed to evaluate the lead user and social entrepreneurship concepts for a more thorough analysis in a broader set of various organizations. It could be fruitful to analyze more diverse organizations in various fields to get richer data to evaluate the concepts and how they connect and interact.

Both theoretical concepts presented in this paper are based on recent frameworks that are important in the development of innovation and entrepreneurship theory. They both show relevant contributions that can help to analyze innovation
processes with a more open perspective and challenge the traditional theories of innovation.

A good way to see how social entrepreneurship can shed new light on the innovation process is to look at the skin products in the Blue Lagoon case. Originally, Icelandic psoriasis patients came to the lagoon to use the waters, and some of them took specimens home in jars to use for bathing. Around 1993, the treatment patients were the customers who inspired the creation of the first skin care product, the moisturizing cream, which was fully developed and marketed for sale in 1995. After a period of product testing, the patients started asking for larger tubes of silica and moisturizing cream to take home, even abroad. As a result, they started selling the products in the store. This development opened for foreign psoriasis patients the possibility to travel to Iceland to the Blue Lagoon to get into this mead and heal their skin. Ever since, treatment patients have repeatedly contributed ideas for skin care products and for continuous improvements to the treatments.

This development can also be explained by the lead user theory, adding the contribution of Shah and Tripsas (2007), who describe the accidental entrepreneur who could be valuable to expand the definition of the lead user concept. The accidental entrepreneur is a heavy user with own experience and then makes a better service offering than is available in a start-up company. The pioneer, the first psoriasis patient to try the lagoon, Mr. Margeirsson, experienced extreme health needs that later led to mass tourism. He also mobilized the SPOEX foundation and his fellow patients to build the first facilities that later formed the company. Mr. Margeirsson, has strong characteristics of a lead user. He discovered the healing powers of the lagoon on the human skin himself back in 1981 by frequently bathing in the lagoon.

Both the social entrepreneurship and lead user’s concepts look at the sources of innovation in a broad manner—innovators can be outside the traditional boundaries of the organization, in the wide organization network. Saemundsson and von Hippel (2010) proposed that the entrepreneur as a lead user could have the role of innovator or producer. The framework needs to take into account multiple roles of the user (customer) in the tourism innovation network, in which the customer can be a producer (innovator), a user, a buyer/payer. This perspective could expand the lead user concept by including the user innovator who wants to improve existing products/services from his experience and interaction.

The social entrepreneur lens views various stakeholders as possible social innovators and even as ecopreneurs who help society to solve social problems. From this
point of view, the social entrepreneur can take risks and use limited resources from any external environment to create a new venture. The CEO of the Blue Lagoon has many features of the classification of social entrepreneurs by Zahra, Gedajlovic, Naubaum, and Shulman (2009). He is partly overlapping the classification of social bricoleurs, social constructionists, and social engineers. He has leadership skills and a passionate personality that seeks a long-term strategic vision in line with Bornstein (1998) and Thompson, Alvy, and Lees (2000). An ecopreneur in line with Linnanen (2005), he creates his successful organization through sustainable use of wastewater from a geothermal plant for better use of the natural resource for patients and tourists.

Both concepts outlined in this paper are based on a broad balanced view of the organization. They can be connected through the double and triple bottom line frameworks, in this case balancing the social and economic dimensions. Both concepts consider various stakeholders as important contributors to innovation.

Social entrepreneurs are often locally embedded with special knowledge of the needs in a situation, needs that individuals can solve themselves or help others with. It is the same with lead users, who need to innovate to increase the likelihood of survival or performance for the individual or his peers. There are many similarities between these concepts that could lead to more fruitful research opportunities and more thorough testing and comparison.

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