

Chapter 8

Breakthrough: Deploying Services and Instruments to Help Customers Take Control

How Can Innovation and Process Streamlining Be Used to Improve the Lives of Patients?

The focus in healthcare is on saving lives, and the adoption of new technology and services is often slow since clinical tests and medical proofs are required. Compared to service-oriented businesses with years of experience in cost-cutting, such as in recreation, telephony, logistics, and retail, the provision of healthcare is not always superior when it comes to optimum services at minimum costs. There is a lot to learn from other industries to stimulate self-service and improve accessibility.

- *Ryhov shows that patients with kidney disorder are capable to conduct their own dialysis if you are willing to open up hospitals, machines, and teaching programs to enable self management.*
- *BerylHealth has taken call-centre technology to improve non-core processes within the hospitals such as being reachable, planning appointments, and conducting market and satisfaction research at the same time.*
- *M-PESA has taken the lead in payments and financial services in Kenya by understanding and building upon the way people use their cellular phones and SIM-Cards.*
- *Jaipur Foot enabled more than one million people in India to participate fully by using mass-production technology and streamlined processes to provide durable prosthesis for less than 1% of the costs in Western countries.*

The importance of many things in life pales in comparison to saving lives and making people healthy again. Healthcare has succeeded in making a significant contribution to increasing life expectancy and improving people's health. In comparison with the major achievements in this field, it appears that innovation in other areas such as efficiency and service-improvement has been neglected somewhat. The growth in labor productivity has not been enough to finance all new opportunities at the same percentage of GNP.¹ At the same time, there have been

¹Pomp (2010).

developments in other sectors around the world, resulting in the improvement and renewal of customer focus and service, as well as a reduction in costs. For instance, the food sector provides more people in the world with food than ever before, all at lower costs and in the affluent countries with a fraction of the labor force compared to the past. While the food production might raise some questions in terms of sustainability and health, that is still an impressive achievement. Fixed and mobile telephony as well as IT have conquered the world and demonstrably provide exponentially more for increasingly less money. Air travel has never been so cheap. Whereas the effects on the environment can be questioned, it is nonetheless remarkable how many people can now afford to fly to all kinds of destinations around the world. The amount of technology in a small vehicle like the Tata Nano car in India is greater than what was available in an entire town a century ago. In short: progress and efficiency can go hand in hand and in disruptive innovation this is often happening. Where it concerns both the previously described mutual help in groups, prevention and self-management as well as the healthcare near and around the patient, this demands improvement close by home. This can be supported via social innovation with IT and big health data. In more specialized care, the focus is placed more on the guiding institutional principles to organize for the optimization of processes or for the bundling of knowledge. As in many other sectors, the challenge is to make things efficient and effective, and more customer-friendly and accessible at the same time. A brief review of the developments in self-service, customer contact, mobility, and product simplification provides inspiration.

A promising manner to give people more control over their own health and care and simultaneously keep the healthcare system affordable is self-service. Aside from the mutual support, information and interventions for self-management, it also concerns practical instruments and process design to ensure people can help themselves. In other sectors, this can be seen in self-service at the petrol station, the POS terminal and online banking, for example. It also revolves around grabbing things off the shelf, taking them home and assembling furniture like at IKEA. That often demands the standardization of processes and technology, so that it can also be done by someone who has not been trained or is not being paid to do so.² Besides self-service in healthcare, the logistical process of planning and making appointments can also be simplified and improved. In comparison with making reservations and bookings for cinemas, airplanes and travel, making an appointment with healthcare practitioners is often a challenge. Certainly when patients have to travel a lot and/or several appointments have to be made one after the other, there is often unnecessary fuss for patients. Mobile and online applications can accelerate the logistical process for making appointments, selecting care and gaining initial information. In that regard, other sectors are revealing developments that will also have an impact on the healthcare sector. In order to obtain an impression of the possibilities, the most affluent countries would do well to consider the breakthroughs in developing

²See: Frei and Morriss (2012) and Kemperman et al. (2013).

countries which are switching straight to mobile telephony for the purpose of opening up difficult-to-reach areas.³ In particular, the tiger economies are also an example when it comes to breakthroughs in product simplification.⁴

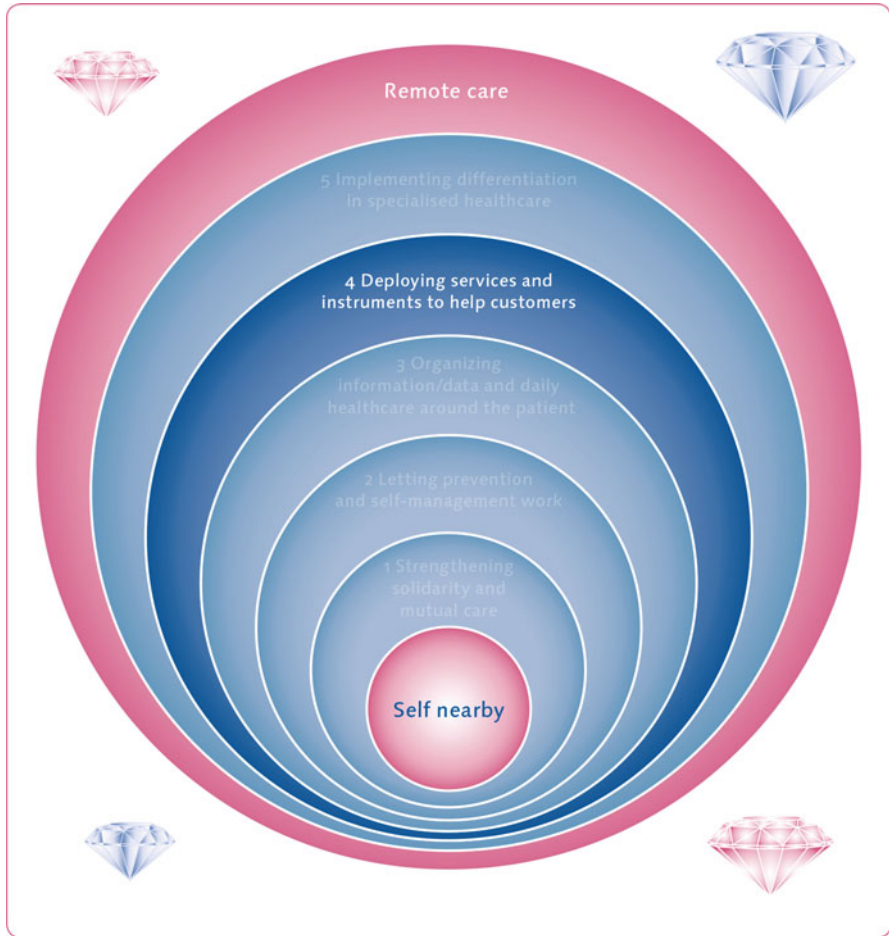


Figure 8.0.1 Breakthrough: Deploying services and instruments to help customers

³For breakthroughs in financial services and network applications of mobile telephony, see: Rhyne (2009) and Adner (2012).

⁴This is in keeping with the analyses of Christensen (1997, 2008) that demonstrate that many innovative breakthroughs do not arise from extra complexity but rather a simplification in combination with the work of Prahalad (2009) which shows that it is precisely the customer groups with the least amount of money at 'the base of the pyramid' often challenge organizations to undertake these kinds of innovations.

Brilliant Business Models Like Ryhov Self-service relates to self-management and prevention, but also simply to your own physical diagnosis, treatment and monitoring. It automatically seems to be the case in the healthcare sector that patients are dealt with as if they can no longer do anything after they have darkened the threshold of a care institution. By contrast, it is often assumed that people will have to be able to do everything themselves as soon as they leave the building. It is meaningful to make a better distinction between truly complicated matters and simple tasks. This certainly is the case if it concerns chronic disorders people have to live with every day. It is worthwhile allowing such people to serve themselves and, where possible, making them less site-dependent. It appears that almost half of the diagnosis, treatment and monitoring which is currently conducted in hospitals could also be done at home. The advantage of self-service in healthcare is that this increases patients' independence and feeling of self-worth and beckons them to take a chance. The example selected for our purposes is the dialysis clinic in the Ryhov County Hospital in Sweden. The operation of dialysis equipment is still conducted in the hospital but is already being carried out largely by the patients themselves. They simply have an access card that allows them to gain entry to the hospital on their own time. This gives the patients much more freedom to fit the dialysis treatment into their schedules, it saves working hours in the healthcare sector and it ensures that people feel like they have considerably more ownership over their own body, treatment and health. There are many more examples where self-service is being used to great effect or can be used more extensively instead. There are also examples of kidney dialysis that people can carry out at home or on another location. The classic example and future of self-service in healthcare is that of diabetes. It was not so long ago that patients had to go to the hospital to have their blood-sugar level measured and insulin administered. Now everyone is used to the fact that diabetes patients do that themselves. The work can therefore be carried out more often with much smaller doses, reducing the number of side effects and giving people a greater feeling of ownership in relation to their own disease. Patients learn better how their body responds to daily exercise, diet and insulin and can consequently better anticipate the consequences thereof. An interesting development that expands the possibilities for self-service is taking place in the field of diagnostics. Just as with measuring blood sugar, so tests for blood and saliva are becoming cheaper, simpler and quicker. A lot of diagnoses is still done in labs to which material has to be sent. This means by definition that there are two contact moments: one for measuring and one for disclosing the results. Diagnostics are now shifting more and more to hospitals, primary care and even the home of the patient. In that regard, it is increasingly about immediate results. A diagnosis can be completed in a single contact moment, which saves everyone time. A trendsetter in this regard is the i-STAT Corporation in New Jersey, USA, with its portable blood diagnostic equipment. These breakthroughs can potentially change this type of testing into self-service. It can also relate to the patient's own role in healthcare and care. As indicated by Dr. Shetty of the Narayana Hrudayalaya Cardiac Hospital in India, parents outside the healthcare sector are capable of independently caring for a baby and raising him/her to adulthood. It strikes him as strange that within the walls of a

hospital the prevailing assumption is that parents cannot help. Consequently, parents are now being deployed in simple care in the hospital and are instructed via a video clip to continue the care at home.

Business Models Like BerylHealth The logistical organization and the scheduling of patients have been set up in the healthcare sector based on the scarce time of healthcare practitioners. In that regard, less attention is paid to the time and planning of patients. Even if the scheduling of healthcare practitioners must be optimized fully beforehand, it can still be done in a way that is a lot more customer-friendly. For inspiration in that regard, we will now turn our attention to BerylHealth. This is essentially a normal call center to which hospitals can outsource their scheduling services. By doing this in an excellent, intelligent and customer-friendly manner, BerylHealth makes a contribution to customer satisfaction and efficiency. In the process, the call center immediately surveys how customers selected the hospital, what they thought of it and how satisfied they were with their treatment. As a result, BerylHealth plays a key role in the marketing and improvement of the customer focus of hospitals. There are many more opportunities to improve the customer process with online and call center solutions. Simply deploying still relatively simple online reservation and booking systems is already a big improvement relative to telephones that are redirected to answering machines with information on the hours of operation. Websites and call centers could potentially also be used for simple activities in the care process. They provide options to find an alternative treatment provider that does not have a waiting list. Customer experiences can also be compiled. Based on quality data, a mentor role can be filled in the selection of and referral to secure and proper care. These are also the type of functions that are done by care intermediary services of insurers and within primary care. In that regard, call centers and online applications can act as both a link and a screen for simple diagnosis and explanation. This dovetails with the movement toward retail solutions as described in Chap. 7.3 on Laastari. Documentation can, for instance be organized in preparation for the appointment and standard communication material can be used to answer initial questions that are posed. In that regard, a short telephone consultation can serve as primary care and preselection, by which appointments are no longer necessary or can in fact be accelerated.

Business Models Like M-PESA Mobile, online technology offers new possibilities for self-management and logistics. But it does not stop just there. It can also be deployed more broadly for transactions, for identification, and as a distribution channel for all kinds of information. In the process, regions can be reached that previously were too remote for technical or practical reasons. In order to obtain a better picture of the possibilities that this offers, we would do well to look at countries where relatively large areas are difficult to reach. Then we look at breakthroughs in developing countries. This is where landlines for telephony are being skipped and mobile telephony immediately embraced, as a result of which many people and new areas are being connected to the world.⁵ An example thereof from another industry is the business

⁵ See: Rhyne (2009) and Adner (2012).

model of M-PESA, Vodafone's proposition via a joint venture in Safari.com in Kenya. M-PESA is a modern variant of the DHAN Foundation as described in Sect. 5.2. It has been expanded from mobile telephony to include micro-banking for groups with the lowest incomes. In the process, the SIM card is being used as a mobile savings account. At the time of writing, this application is being expanded even further and will soon feature a "Health Wallet" with which healthcare expenses can be paid. Furthermore, information can be disseminated via the telephone that helps patients lead healthier lives. And healthcare practitioners can, for instance, call each other for free to discuss a patient's diagnosis and exchange information. In order to obtain a better picture of the broader distribution possibilities with mobile phones, we can look, for instance, at mobile banking via G-Cash in the Philippines and at Wizzit and MTN in South Africa. In that regard, the Japanese NTT DoCoMo shows how people can identify themselves and pay by tapping their mobile wallet at the cashier's desk. The application possibilities provided by mobile telephony within healthcare are still in their infancy. It should be clear that on the one hand it helps to realize the desired breakthroughs in self-management and integrated care surrounding the patient and on the other hand to streamline the logistics and planning thereof. In that regard, many new possibilities have arisen due to the fact that the mobile phone is portable and always available. Simple points where the process can still be improved include checking in at a hospital's casualty ward, support and quicker diagnostics for victims involved in an accident, and identification and data compilation for vitality programs.

Business Models Like Jaipur Foot Innovation based on product simplification ensures more affordable products that can be operated more easily. As previously outlined with Ryhov, this offers opportunities to permit patients to do more themselves. In that regard, it also offers opportunities to make resources and instruments radically cheaper, as a result of which they become accessible to many more people and uses. The Jaipur Foot has been selected as an example of this kind of disruptive innovation. The organization behind it has equipped well over a million people in India with prostheses. Consequently, these patients have been transformed from disabled individuals into productive people in society who are able to provide for themselves once again. Whereas making and measuring a prosthesis in the West quickly amounts to some USD 8200 (EUR 7000), an artificial foot from Jaipur Foot costs a mere USD 53 or EUR 45 (i.e., less than 1% compared to the price in Western countries). At the same time, the requirements placed on this artificial foot are greater than those in the West given the different living and working conditions in India. The need to do things not just 10% better, but rather to find completely new solutions also creates an open mindset to search for opportunities elsewhere. We can for instance look at resources and instruments that are made based on comparable quality standards for radically lower rates. Based on the understanding that necessity is the mother of invention, this provides the inspiration to use the scarce resources in healthcare, also in the West, more economically and efficiently. As outlined for Ryhov, there is a need, for instance, for product simplification in diagnostics to bring tests closer to the patient. Examples of companies that provide diagnostic equipment for points of care are Iverness and Guidel. SonoSite is a pioneer in portable

scanning devices.⁶ Now GE Healthcare in India has developed a portable scanning device for less than USD 1200 (EUR 1000), which has blossomed into a company with a turnover exceeding USD 295 million (EUR 250 million) within a few years. This does not replace the more advanced MRI scans, but does allow people in primary care to make a quick diagnosis on-site.

8.1 Ryhov

Innovations in kidney dialysis by co creation

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Prelude *Patrick, aged 30, visits the hospital three times a week for kidney dialysis. Each treatment consumes between 4 and 5 h of his time. Assuming there were no queues, consultations that drag on or emergency cases, this means at least 20 h per week in the hospital. Furthermore, he is waiting for a kidney transplant, creating a cloud of uncertainty over his future. Patrick is dependent and his days are defined by his illness. This schedule makes maintaining a working and social life a major challenge. Even going on holiday creates more fuss than relaxation. Patrick lives to dialyze, but wants just the opposite: to dialyze in order to live!*

Thanks to a kidney transplant, Patrick has been able to realize this dream. Together with his wife, he has led a carefree life for the past year. He is able to play sports again, has a fulltime job and he and his spouse are expecting their second son soon. A life that only a couple of years ago seemed impossible became reality. But how much nicer could Patrick's life have been up until his kidney transplant had he done his dialysis at Ryhov?

Thanks to Ryhov, kidney patients in Sweden can once again lead much more normal lives. It is a brilliant example not only because of the enormously positive effect on the daily lives of people, but also due to the manner in which the innovation came about. This new care concept arose from an intensive and open cocreation

⁶See: Christensen et al. (2008) and Christensen and Dann (2001) 'SonoSite a view inside', HBR Case 9-602-056.

between a patient and a nurse and resulted directly in a significant increase in the level of quality of the life for the patient. Ryhov has shown that it has the nerve to do things differently. The idea, the vision of one patient, and the courage of an employee has turned the hospital's approach upside down. Truly listening to the patient and acting accordingly—how is that done?

Introduction The *Lanssjukhuset Ryhov* (Ryhov County Hospital), founded in 1988, is the largest of three hospitals in the Swedish region of Jönköping. Some 3300 employees are spread out over 25 specializations, including pediatrics, psychiatry and oncology. A special unit within Ryhov is the dialysis clinic, where one simple question from a patient combined with one patient-oriented, open-minded nurse resulted in a unique self-service concept in healthcare. Since 2005 the rule in the Ryhov dialysis clinic that dialysis treatment is entirely focused on the patient's personal needs, preferences and circumstances. Furthermore, patients are no longer the direct object of a treatment, but rather the person himself/herself who determines his/her own approach to treatment. In the words of initiator and patient Christian Farman: "I have a new definition of health."⁷

Of course, the innovative approach requires another setup and environment. The dialysis clinic reopened in March 2011 with 12 self-dialysis stations to allow patients to play a greater role in their treatment. Learning from one another, both fellow patients and nurses, is the focus here. But how does that work in practice? Sixty percent of the dialysis patients in Ryhov perform the dialysis treatment independently. The patients help, coach, and inspire one another and provide themselves qualitatively good care. The self-dialysis approach hinges on giving each patient his/her own key to the dialysis clinic. The result is that kidney patients are in control of their own treatment, which reduces dependence, increases flexibility and lowers healthcare costs by 33%.⁸

8.1.1 The Cornerstone: Always the Best for You

Christian Farman had worked for many years as an engineer at SAAB Avitronics and was passionate about sports. Earlier in his life he had had a kidney transplant and received news in 2005 that he had to undergo dialysis again. His world was turned upside down. Just the thought of returning to a lifestyle where he had to go to the hospital three times per week and spend 3–5 h hooked up to dialysis equipment was oppressive to him. And that was not even taking the nausea, fatigue and thirst into account. For Christian, this was unacceptable; he wanted to regain control over his life. Something had to happen. Christian conducted research into self-dialysis and became convinced that if he could perform the treatments himself, he

⁷Levy (2011).

⁸Aside from the literature referred to, information on the following sites has been used: www.lj.se/ryhov, <http://www.youtube.com/watch?v=VEk-A3k98QA> and the presentation of Donald Berwick, Leiden 2 October 2013.

would have more control over the side effects, could reduce the risk of infections and could better schedule the dialysis treatments based on the needs of his body. With this conviction, he appealed to his nurse, Britt-Mari Banck.⁹ Britt-Mari saw day in and day out the clinic's patients struggle to cope and search for opportunities to lead as normal a life as possible. But she had never received such a direct question from a patient to help him understand dialysis and to perform it independently. His nerve and resolve inspired and encouraged her to try this in practice. With the aid of the methods and techniques used to train other nurses, Britt-Mari spent several weeks giving Christian an improvised crash course in performing dialysis entirely independently. The results were better than anticipated: the side effects declined significantly and Christian began to regain control of his life.

Ryhov hopes to realize a success rate of serving 75 % of its patients via independent kidney dialysis and, consequently, making a contribution to the quality of life for kidney patients. For Ryhov this is the goal that it is actively aiming for and uses as its benchmark based on the conviction that you get what you measure. Christian never resumed his position at Saab, but now works as a nurse in the ENT unit at Ryhov, where he himself makes a contribution to a better quality of life for the hospital's patients. Patient-focused care is in his blood: "I have an advantage: I see the patient as a resource."¹⁰ By regarding the patient as a resource, treating him/her accordingly and providing care based on that fact, Christian is giving meaning to Ryhov's mission: "Always the best for you." The origin of this innovative care concept illustrates how self-evident the importance of independence, trust and quality of life are in this hospital. In this way, the core values that underlie this approach to work in the dialysis clinic are being implemented directly. Values that are acknowledged and experienced by both employees and patients. Patients immediately experience that things are done here differently. Here they are no longer at the mercy of often unintelligible specialized care, but are the focus of the entire process. In this hospital the patients are in charge and support is given where required. Patients feel they are taken seriously and understood by the hospital's staff members, who truly listen to them. It is the evidence of successful care that is simultaneously created and experienced by both employees and patients. It is a significantly different approach to work where both employee ("I went from being the technical expert to coach") and patient ("I want to live a full life! I have more energy and feel complete") experience the benefits thereof.¹¹

Britt-Mari Banck showed courage and trust to make a difference together with Christian. This is something that demands a lot of an organization, especially in terms of flexibility, empowerment and the ability to think outside the box. These core qualities have also not remained unnoticed in society. For instance, Britt-Mari Banck received the Pioneer Award¹² within the context of female leadership day in

⁹ Bisognano (2013a, b).

¹⁰ Idem, p. 2 annual report 2012.

¹¹ Idem.

¹² Aberg (2013).

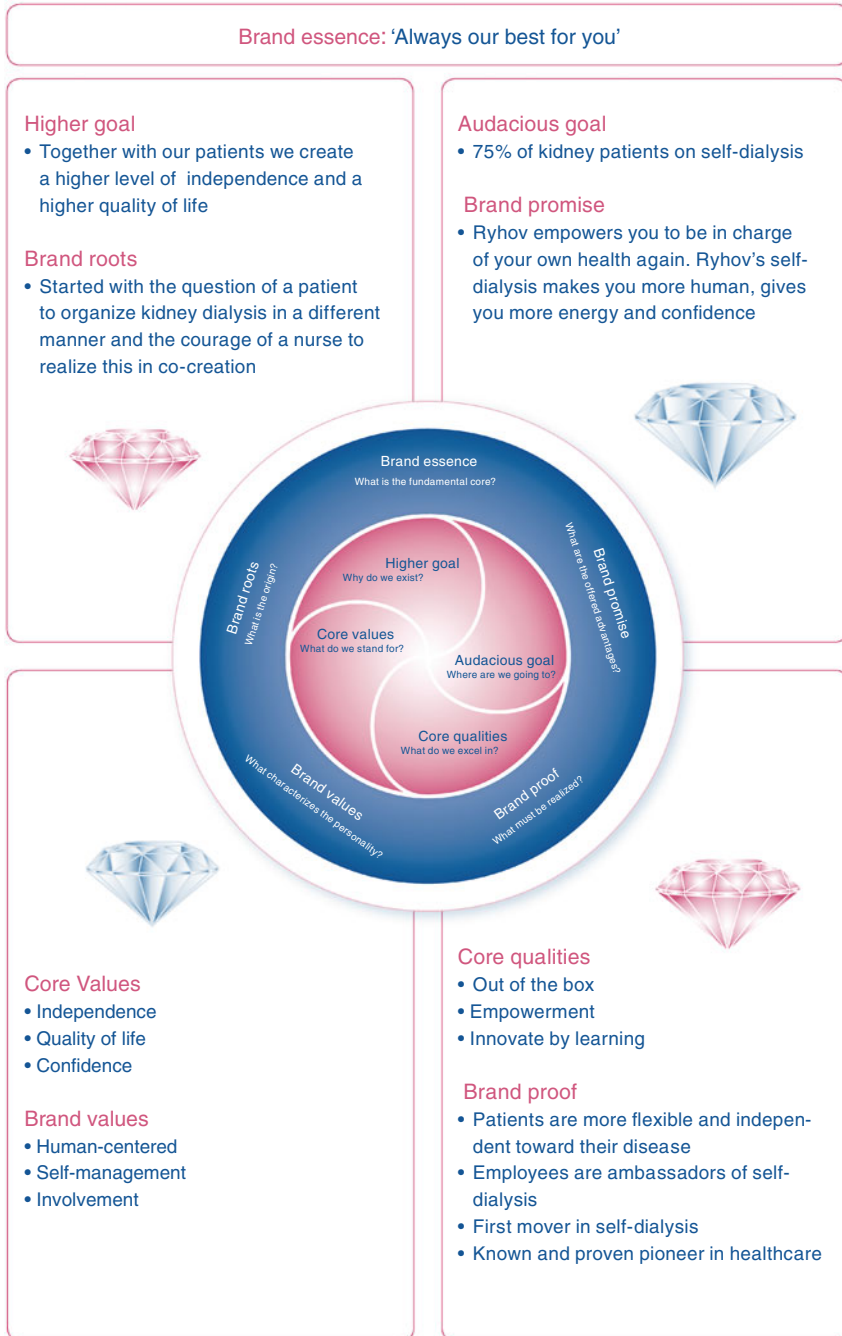


Figure 8.1.1 Vision and Positioning in kidney dialysis of Ryhov

Sweden and the dialysis clinic received an honorable mention for the 2013 Guldskalpellen for innovative care.¹³ Beyond Sweden, Ryhov's dialysis clinic is regularly referred to as an inspiring example of innovation in healthcare. Maureen Bisognano, CEO of the Institute of Health Improvement (IHI), referred explicitly to the Ryhov dialysis clinic in her 2012 Annual Report.¹⁴ In the UK, a visit to Ryhov in 2011 resulted in the launch of a program¹⁵ based on the relevant findings. In addition, Ryhov is referred to as an inspiring example of self-care in both a research report by the American Hospital Association and presentations by Don Berwick.¹⁶ All of this is sufficient cause to take a closer look at Ryhov's business model.

8.1.2 The Business Model: From Care Receiver to Cocreator

Market Segments: What IKEA Furniture and Self-Dialysis Have in Common IKEA has become a giant by making designer or other furniture in ready-to-assemble packages. In doing so, it literally reveals its business model by which the customer becomes part of the production process. The result is, of course, relatively good quality at a low price. It can be of little coincidence that Ryhov's self-care concept has developed in the country where IKEA originated. The patient is encouraged to play a major, active role in his/her own care process.

First of all, it is wise to place the business model within the context of the Swedish healthcare system. In Sweden, healthcare is organized per region and medical care is largely managed by the administration of the relevant province, region or municipality. They see to it that inhabitants have access to qualitatively good medical care. In addition, doctors have a private practice especially in the larger cities. Since distances in Sweden are great, inhabitants generally choose a healthcare practitioner within their own region. Following the regional setup of healthcare, the competition also remains restricted to the relevant region or province. With the exception of a maximized personal contribution of SEK 1100 (USD 136 or EUR 115), healthcare costs are financed from taxpayers' money. Taxes are relatively high, but so too is the quality of life.

Ryhov is the largest of the three hospitals in the region of Jönköping, a care area of 130,000 inhabitants (some 10,000 km²). According to estimates, Sweden has around 7000 kidney patients, 3000 of whom are treated with dialysis. For dialysis patients, the distance to a dialysis clinic is of vital importance given that the frequency of treatments averages three to four times per week. When dialysis at home is not possible, dialysis patients often opt for the nearest hospital. There is barely any competition outside the region. Ryhov treats more than half (60%) of the

¹³Toresson (2013).

¹⁴Idem, p. 2.

¹⁵NHS (2012).

¹⁶Chu et al. (2013).

dialysis patients in the region (104 patients). Thanks to the personalized coaching program, described later in this chapter, self-dialysis has been made suitable for every kidney patient. This is also reflected in the increase of the average age of self-dialysis patients, namely from 49.2 years of age in 2006 to 63 in 2012.

For years now, Sweden has been a textbook example due to its combination of low healthcare costs and good medical results. One of the keys to its success in healthcare has been transparency. Sweden was one of the very first countries to succeed in making differences between hospitals in terms of quality comprehensible. This insight makes it possible to shift the focus from limiting healthcare costs to increasing the “value” of the care provided (and improving the price-quality ratio of healthcare). Quality can be compared by both healthcare practitioners and patients, if best practices are recognized this makes it possible for all parties to learn more quickly from one another. The public disclosure of this quality information provides a stimulus to continue increasing the level of quality of the care provided.

The continuous quest to increase the quality of provided care, which helps reduce healthcare costs, challenges care institutions to be innovative. This dynamic is also tangible in the Ryhov County Hospital and gave it the scope to guide improvements in the quality of provided services in its own way. In Ryhov, the participants saw and recognized the differences in patients’ individual needs. Patients want to play a more active role in their own care process, think along with healthcare practitioners and indicate what is important to them. This insight has reinforced the belief that the only way to truly improve the quality of provided care is by involving the patient in the process. The result of this change in approach is also that patients themselves have become the director and cocreator of the dialysis process.

Customer Value: Doing More Yourself for a Suitable Treatment and a More Flexible Life Patients play an active role in their own care process at the Ryhov dialysis clinic. This means that something else is also demanded of the patient. The path to self-dialysis requires the development of both medical and technical skills. In other words, patients must do quite a bit themselves. The experiences of patients who have undertaken the steps toward self-dialysis indicate, however, that it is worth the investment. Combining the time that patients spend in the hospital during dialysis with training and education does not demand any extra investment in time. On the contrary, the time spent on dialysis is utilized more efficiently. As a result of the tremendous involvement of nurses and other patients during the transition to self-dialysis, the trust of the patient grows. The process of regaining control of your own life and your health and, consequently, your independence, starts with the first steps toward self-dialysis. And as it turns out, self-dialysis is suitable for a broad range of kidney patients. For instance, the oldest self-dialyzing patient is 83 years old. This change is made possible by the flexibly arranged training pathway in which learning from one another plays a major role. The value for customers turns out to be rather positive. Patients make more of an effort but are properly supervised and trained in that regard, and also receive a lot for it in return. They receive care suited to their personal needs and are able to lead a more regular lifestyle with greater flexibility.

Delivery: Personalized Coaching Program The care in the Ryhov dialysis clinic is adjusted to the medical or other needs of patients, their personal circumstances and preferences. The nurses encourage a patient to take the required steps in the so-called Self-Dialysis Staircase Model, which was developed to help patients learn how to perform self-dialysis step by step. The pace and the height of the self-management level is determined by the patient. It also happens that some patients never fully convert to self-dialysis, but Ryhov considers every step in that direction as a gain for both the patient and the organization. It helps people get a grip on their own lives.

The Staircase Model is an educational model that supports patients to move from assisted dialysis to full self-dialysis step by step. This model focuses on an understanding of the disorder, medical and technical skills, the physical state and especially the individual. Learning from one another and sharing experiences are central to this model. Patients and their family members learn from the experiences of people in similar circumstances. This can be of an emotional support, but certainly also practical assistance for sharing experiences such as tips on how to adjust equipment. Those practical tips can have an enormous effect. For instance, there was one tip about increasing the frequency of dialysis from three to four times per week, simply because a patient felt better due to fewer side effects. In addition, the Pavilion, which opened in 2011, has been equipped entirely based on these learning principles. A learning café—where patients, their family members and experienced employees come together to share know-how—has been fitted out. Patients can come and go when that suits them and conditioning facilities (a home trainer and weightlifting equipment) are available for workouts both before and sometimes during dialysis.

Not only patients but also employees have a different role in this model. They are no longer the healthcare practitioners, but fulfill a coaching role. This requires the necessary retraining and refresher courses for nurses. Employees are ambassadors for the self-dialysis program, because they see what this approach means for patients. At the same time, it provides opportunities for them to flesh out their own positions. For instance, Annet, one of the nurses, has taken the initiative to help patients reintegrate into society. Annet realized that many kidney patients were confronted with unemployment and came up with a way to help them in that regard. Specifically, she coaches them in writing their CVs. Once that is done, they make contact with potential employers in the region via the employment office. Thanks to her efforts, a large number of patients have been able to find work again. The collaboration between nurses and patients provides for a continuously developing service in the Ryhov dialysis clinic. Collaborating and learning outside of Ryhov also provides direction. For instance, intense collaboration takes place with a number of external organizations, including the Swedish Kidney Foundation.

Operation: Small Changes, Major Consequences The gain in efficiency and speed are merely a result of patient-focused care; neither of them has been a goal in and of itself. The driving force behind the way of working is found in the people (the patients and nurses) and the involvement in the welfare of the patients. Still, a number of amazingly efficient ways of working can be identified. For instance, when

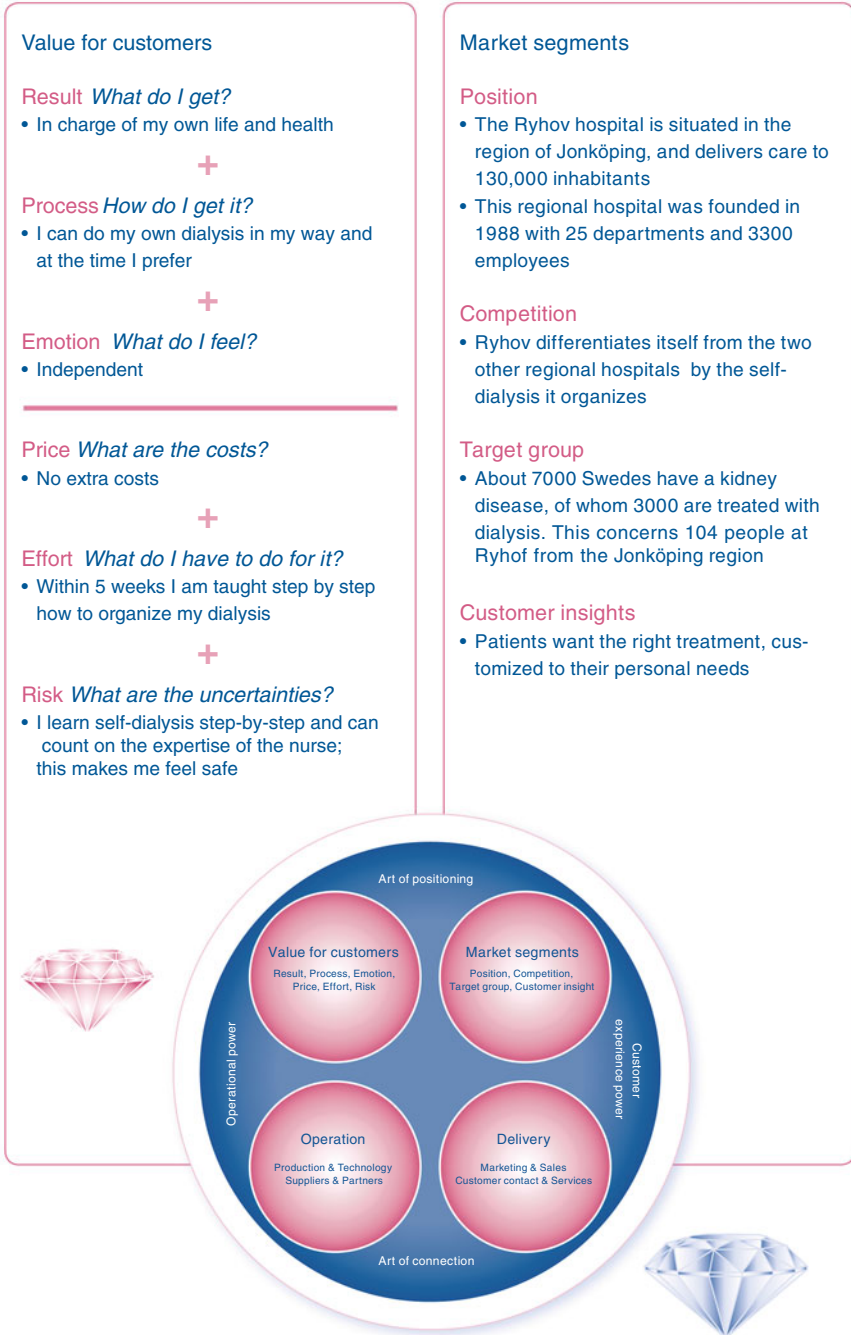


Figure 8.1.2 Value for customers and Market segments in kidney dialysis of Ryhov

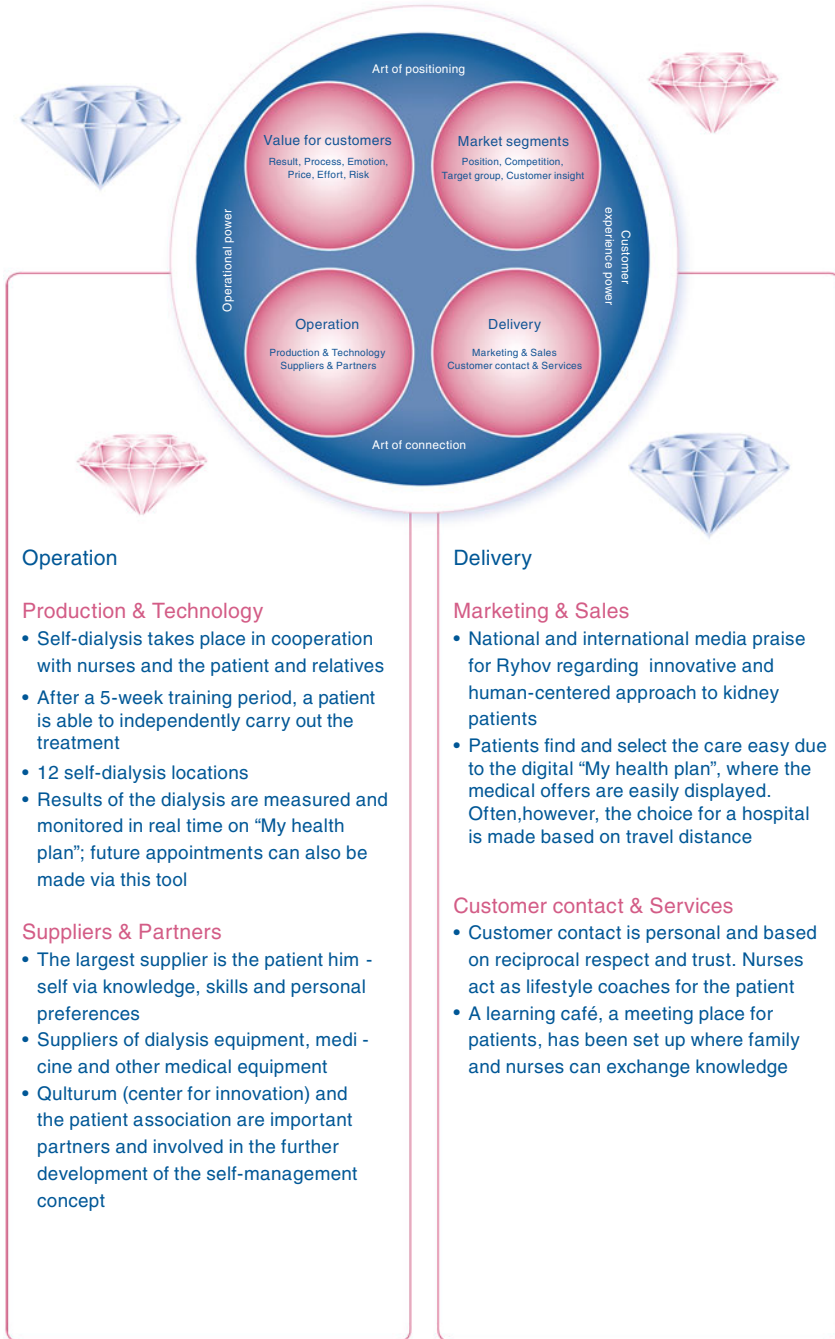


Figure 8.1.3 Operation and Delivery in kidney dialysis of Ryhov

patients have completed the training program and are able to perform self-dialysis independently, they receive an access card to the dialysis clinic. This card enables patients to enter the dialysis clinic at any moment of the day. When patients arrive, the equipment is turned on and the machine's self-test initiated. Alongside every dialysis machine is a cart with the materials needed for the test. The required accessories (vials, filters, needles) can be picked up from the self-serve supply room by the patients themselves. The machine must then be readied for use with the vials and filters before patients insert the needle themselves into their arm to start the dialysis process. The preparation phase lasts 20 min on average, dialysis 3–4 h and clean-up roughly 10 min. This amounts therefore to a weekly total of some 20 h which in every other hospital is carried out according to a strict schedule. At Ryhov, the patient's life determines the rhythm of dialysis and not vice versa.

These self-dialysis stations are not a lot different than the stations that were used beforehand for fully assisted dialysis. But there are practical differences, such as the fact that the beds are now adjustable and can be tilted up, enabling patients to perform the self-dialysis while sitting up. What can be referred to as impressive, however, is the fact that the selection of these dialysis machines is made by the patients themselves. They were permitted to test four chosen devices based on a variety of considerations, including ease of use. The equipment that came out on top is now used by all patients. Patients that perform self-dialysis completely on their own may decide at what time they come in for dialysis. Both patients and nurses can use an online platform (“My Health Plan”) to monitor the results of the approach to treatment in real time. It also offers the option of schedules and reminders that can be activated. In the future, patients will also be able to use this platform to reserve dialysis equipment, review their patient records and participate in a forum to come into contact with one another.

Important in this approach is the focus on the result instead of on the treatment. Once it is clear what the most important goals are for the patient in terms of quality of life, the process can be set up with that in mind. That sounds logical, but practice often shows that the focus is on improving the process or the treatment. The approach with the focus on results also means that if it becomes evident that self-dialysis is not making a contribution to a patient's goals, he or she shall only partially continue with the steps in the model or not at all.

8.1.3 Result: Self-Care—A Value or Condition for Good Care

What is striking at Ryhov is the prevailing modesty and obviousness of it all. The way of working is internally truly a way of living, which is the cause of much surprise for outsiders. Barely any attention is paid on the organization's own website to this unique way of working. Employees talk about this brilliant concept as if it were the most natural thing in the world. And it is precisely that obviousness about it all

that is one of the aspects that make this business model so successful, because it represents a natural focus placed on learning and innovation.

Firstly, the biggest result achieved in the dialysis clinic is the higher quality of life of kidney patients. Patients are in control of their own life again, with fewer side effects and greater energy levels. Ryhov is a fantastic example of cocreation in healthcare, whereby an increased level of personal responsibility is increasing the quality of services. And this result is shared with more than half of dialysis patients. Currently 60 % of patients have switched to self-dialysis; the goal is 75 %.

The value creation extends further than just value for patients and their families. The unit's more than 20 nurses have seen their job description change—one they themselves contributed to—from healthcare practitioner and technical expert to partner and coach. It is a role from which, according to employees, they derive greater satisfaction, as the impact on the patient is greater. It is a role that also goes hand in hand with more trust and variation to be able to meet the preferences and desires of the individual patient. It is also a transformation on which employees, who have already spent years in the profession, have courageously and willingly worked while it also meant that less nurses would be needed to do the job. The dialysis clinic has become a social community where doctors, employees and patients are on equal footing, as a result of which they work better together and from which they derive much more pleasure. Ideas for improvements or the resolution of individual problems are discussed in multidisciplinary teams and turned into a success on the basis of shared responsibilities.

Some may question whether the healthcare system will incur unnecessary additional costs when this freedom is introduced and the patient is put in control. Others may express their concern that renewal, innovation and experimentation will ultimately drive up overall costs. Nonetheless, the opposite turns out to be the case. Since 2011, the number of self-dialysis patients has increased to 60 %, but total costs have declined by 33 %. The biggest savings are found in the increased level of quality: fewer complications, fewer side effects and fewer infections. When compared with dialysis in other Swedish hospitals, Ryhov is no less than 50 % cheaper.

In other words, customer value, employee value and financial value have found their equilibrium at Ryhov. In the capacity of healthcare practitioner, Ryhov also plays an important role in society. The dialysis clinic contributes to a healthier society at the lowest possible price. Societal value is defined as a decline in unemployment thanks to self-dialysis. Generally speaking, the unemployment figure amongst the kidney patient population is higher than the national average, primarily due to the fact that dialysis takes so much time. Thanks to the way in which Ryhov, together with its patients, performs dialysis, patients become more flexible and their labor participation rate significantly higher than is usual for dialysis patients. In addition, the dialysis clinic, in its role of trendsetter in the field of self-care, has created an inspiring example. It is evidence that investing in self-care or patient empowerment truly is worthwhile. And this will hopefully leave a lasting legacy.

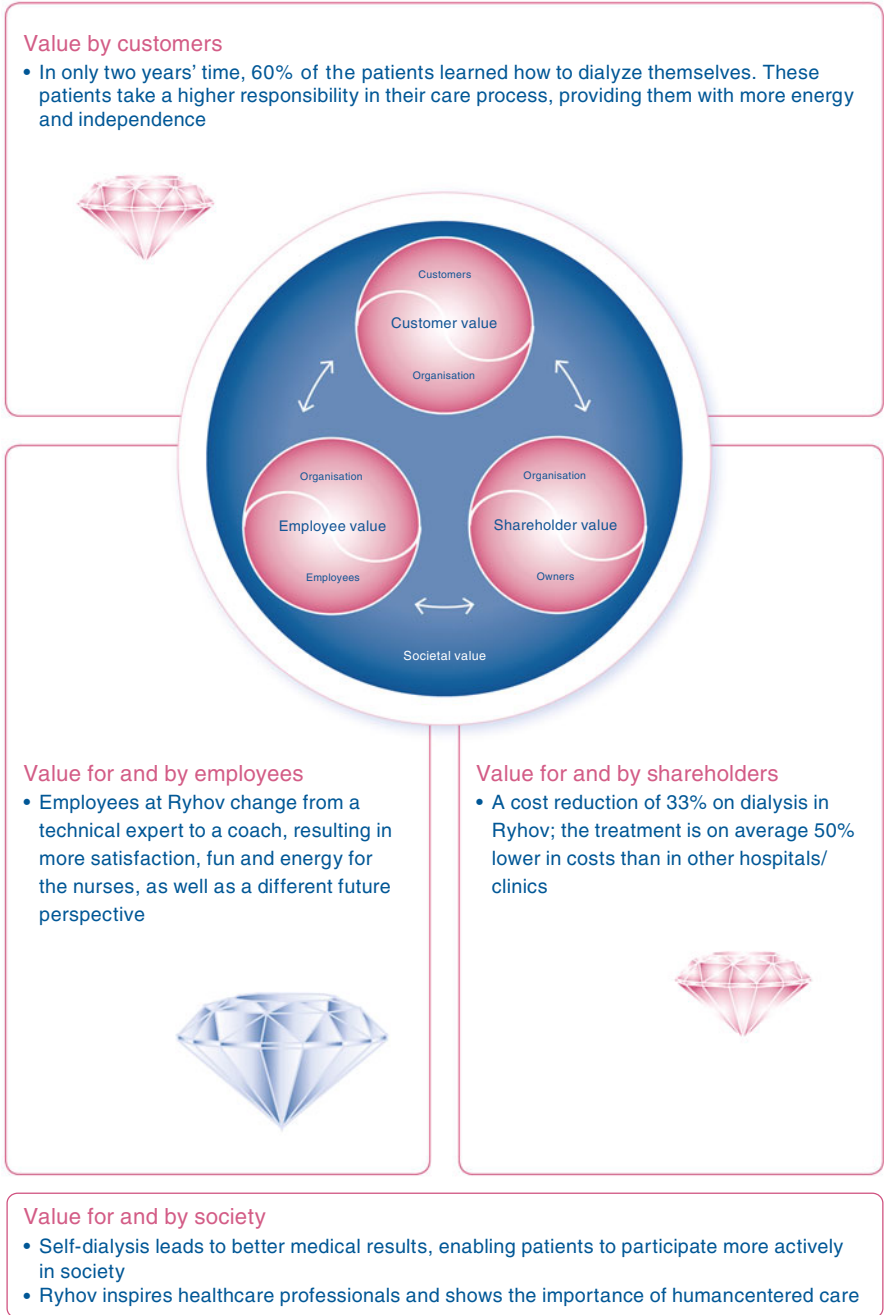


Figure 8.1.4 Value for and by stakeholders in kidney dialysis of Ryhov

8.1.4 *The Brilliant Lessons of Ryhov*

The quality of provided care, while maintaining or reducing costs, is an issue that is high on political agendas around the world. The approach to work at Ryhov shows that it is possible to increase the level of quality and reduce costs at the same time. The most important lessons in this regard are listed below:

- Put the focus on the patient and then review what this requires in terms of processes and the division of roles. Thinking should be based on a renewed solution instead of on the existing organization and distribution of duties. Seeing the person instead of the patient provides added value for the customer (higher quality of life) on the one hand and for both the organization and society (lower costs and higher labor participation rate) on the other. Where Ryhov shines is in the open conversation with patients regarding the personal meaning of quality of healthcare and life. It is a conversation that has moved from “What’s the matter?” to “What matters to you?”¹⁷ For Christian Farman, independence and feeling energetic were the most important results of the new approach for his kidney disorder. In conversation with a doctor and a nurse, this need resulted in him being able to perform the dialysis himself at times that suit him and in a rhythm by which he is able to feel energetic once again. It is a gain that perhaps can be realized for more patients and other disorders.
- Create transparency in healthcare. Make healthcare results transparent and use them to improve the quality of the care provided. Since the results of healthcare practitioners in Sweden are so visible and comparable, a climate is being created in which participants can learn from each other, healthy competition and innovation can take place, and what does and does not work can be revealed. Transparency in healthcare outcomes—both internal and external—results in more improvement and innovations.
- Use cocreation. Listening to both customers and patients and innovating together results in a greater chance of success. When the patient’s needs are clear and in focus during the treatment process, the health gain increases. Give the patient an active role and a level of responsibility in the care process. This allows the patient to understand the care process better and to adjust it when necessary. The result of the Ryhov dialysis clinic’s approach is fewer infections, fewer complications and reduced medicine use.
- Involve employees proactively in quality improvements based on trust instead of control. Give employees the space to think about how to improve the quality of care provided. Granting trust and freedom to discover and experiment within an organization for the purpose of arriving at improvements results in innovation. Britt-Mari Banck felt she had the freedom not only to train other nurses, but also to try to train patients themselves. Aside from an increase in the level of quality and a reduction in costs, this freedom has resulted in repeated recognition for the pioneering result.

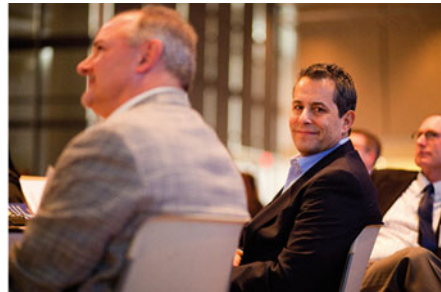
¹⁷Bisognano (2013a, b).

- Move from social worker to coach. This involves transforming the role of a nurse into one of assisting and coaching people in arriving at the highest possible quality of life. This last lesson is also confirmed by the theory of Dr. Margaret A. Newman, a giant in the field of nursing theories. She is convinced that the quality of care can be improved by shifting the treatment of complaints to the search for patterns in awareness. In that regard, she defines the role of nurses as follows: “From viewing the nursing role as addressing the problems of disease to assisting people to get in touch with their own pattern of expanding consciousness.”¹⁸

8.2 BerylHealth

A Call Center that Makes Hospitals’ Customers Happy

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Prelude *The reception is phenomenal. We enter the building, are met in the reception hall by COO Lance Shipp on his Segway, walk through the call center that has around 500 workstations and then it happens just as we are walking around the corner to the presentation hall. Suddenly we hear loud cheering, coming from some 30 people standing in a double row. They scream, clap and give high fives. We are surprised by this warm welcome and ask one of the BerylHealth employees standing in the double row: “This is amazing. What’s this? Why are you doing this?” The answer is as simple as characteristic of the culture: “Nice, isn’t it? This is how we always welcome our new employees on their first day at work.” We can assure you that you do not come away from this type of welcome untouched.*¹⁹

¹⁸Newman (1999).

¹⁹This case is based on multiple visits to BerylHealth from the end of 2009 to the start of 2013. A previous description of the Beryl business model (Geelhoed and Samhoud 2011, pp. 87–91) acts as the basis of this section. This description is enriched and supplemented by the experiences of the later visit.

Introduction BerylHealth is a call center that is established by Paul Spiegelman. Call centers are not the most attractive companies to work for, but BerylHealth is not your average call center. It is a unique organization with a clear vision and a sophisticated business model. It focuses on hospitals and assumes their responsibilities for customer contact. In 1985 Paul Spiegelman and his two brothers start a small business for emergency medical assistance. A combination of factors led to its incorporation. Paul's older brother, Mark, is a whiz kid. The family is running a successful alarm and security company when their grandfather starts having problems with heart failure. Paul: "When Mark saw our grandpa in such a vulnerable state, the idea emerged to develop an emergency call system that could help other people as well." And thus begins their new business under the name Emergency Response Systems (ERS).²⁰ But after roughly a decade, they discontinue operations because they discover it is becoming too capital-intensive for them. The brothers sell ERS and go in search of new opportunities.

8.2.1 The Cornerstone: Connecting People to Healthcare

The new opportunity arises when Columbia/HCA, the world's largest healthcare organization, requests a proposal for managing the National Physician Referral program. At first glance Paul Spiegelman has little chance against competitors who have an eye on the contract. But Paul and his team set to work quickly, pulling out all the stops to submit an attractive proposal. They spend 9 months working practically day and night on the pitch—successfully. Paul Spiegelman is awarded the contract and an unlimited budget to set up a new call center near Dallas, Texas. His dream becomes a reality—until 3 years later when Columbia pulls the plug on the project. This gives Paul a fright, but he eventually purchases the entire call center and expands it into one that strives to serve the patients of hospitals exceptionally well by providing outstanding service and sophisticated information.²¹ And that is how BerylHealth came to be: a call center that is continuing to grow and attract even more customers. By 2012 the business had more than 500 employees.

The driving forces and sources of inspiration of BerylHealth are articulated in the company's vision. Its higher goal entails connecting people to healthcare. This means that patients are treated as people and that outstanding service is provided, so that people start to feel connected to healthcare. BerylHealth uses the following core values:

- passion for customer service;
- always do the right thing;
- never water down quality;
- spirit of camaraderie;
- commitment to accountability.

²⁰ Spiegelman (2007), p. 3.

²¹ Idem, p. 10.

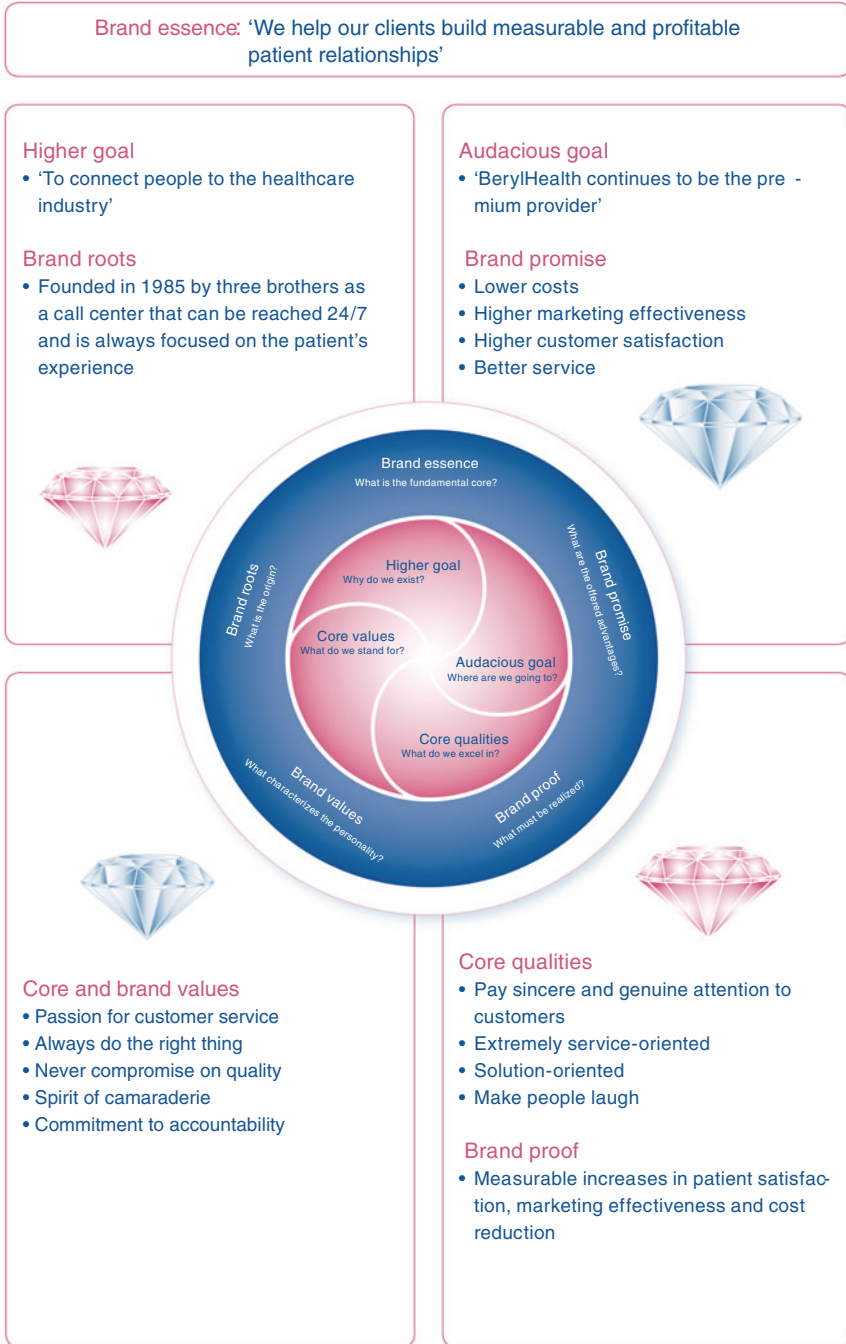


Figure 8.2.1 Vision and Positioning of BerylHealth

These core values are deeply embedded in the organization. They are the rules of inspiration and touchstones for the daily actions of all BerylHealth employees. Later in this chapter we will see in one example how this functions in practice. You notice the core qualities of BerylHealth immediately if you spend a couple of hours within the company. The people have the competence of giving others their genuine attention. They are extremely service-oriented, think in terms of solutions and are able to make you smile. The audacious goal is to *remain* the premium provider in the market. In other words, BerylHealth is the market leader by far. And it is the task to remain at the top.

The brand essence fits seamlessly with the organization's vision. Specifically, BerylHealth desires to help customers build measurable and profitable patient relationships. The promise is crystal clear: lower costs, greater marketing effectiveness, higher customer satisfaction levels and better service. In that respect, their promise extends quite far. At the same time, however, they can simply point to the fact that it is true what they promise, because BerylHealth simply makes everything measurable. But we will leave that discussion until a later point.

8.2.2 The Business Model: Two Target Groups with One Stone

The question is now: how does this organization create value? BerylHealth realizes a profit margin of 21 %, which is exceptionally high in the call center sector. How is that possible? How are they able to achieve that year in and year out? The answer lies in the sophisticated business model.

Market Segments: Hospitals with More Than 400 Beds The target group is very specific, that is to say the larger hospitals in America which have at least 400 beds. Hospitals with fewer beds turn out not to immediately have the issues for which BerylHealth has a solution. These customers are not interested in the service of BerylHealth—something that is also not necessary, as the hospitals are queuing up for BerylHealth. The reason is that BerylHealth provides incredible value for both its customers and its customers' patients.

Customer Value: More Satisfied Patients, Higher Turnover and Lower Costs The service is unique. Firstly, the organization takes over the telephone service for the patients of the hospitals it serves. In doing so, it earns per minute and not per conversation. This means BerylHealth is also financially rewarded for taking the time for customers and not rushing through discussions. A patient who calls "his" hospital in New York, will get a BerylHealth employee in Texas on the line. The patient can then arrange a number of options through this employee, such as being referred to a doctor, scheduling a visit to an outpatient clinic or making an appointment for an operation. The employees of BerylHealth arrange for appointment reminders. Patients with health-related questions can also obtain answers from BerylHealth because the call center's staff have at least the same level of knowledge as a nurse. After an operation, for example, patients receive a phone call a week later from a

BerylHealth employee enquiring how they are doing and whether everything went as hoped. In other words, the patient contact is taken over completely and top-quality service provided in the process. One example cannot be withheld: a patient called an employee of BerylHealth to announce that his father was in a New York hospital in serious condition. He wanted to go visit his father but did not know which hospital he was in. The relevant employee did not skip a beat and proceeded to call every hospital in New York City to find out where the patient's father was. As a result, the second core value—"always do the right thing"—was properly put into practice. Whereas this is special in terms of service, the conclusion cannot yet be drawn that this is also a special business model.

However, we will be able to draw that conclusion after reviewing the second service of BerylHealth. In the USA, patients personally select the hospital they visit. Hospitals must use marketing campaigns to recruit customers. They would prefer to spend their marketing funds as effectively as possible. In order to measure the effects of these marketing campaigns, they should conduct research into the effectiveness thereof. But that, in turn, costs money—money they can no longer invest in the necessary marketing campaigns. BerylHealth capitalizes on this situation by incorporating its research immediately into the service provided. If a patient calls to make an appointment, the employee might answer: "Thank you for calling. How did you end up at our hospital?" That question makes it possible to measure the effectiveness of hospitals in one fell swoop. BerylHealth analyzes these results, reports on them, and makes recommendations to the relevant hospitals. This way hospitals are able to spend their marketing funds more effectively. The result of this dual service for hospitals is that BerylHealth does not provide a cost-saving service with a few extra activities, but rather a service that increases turnover. The services of most call centers are engaged by companies to reduce costs and effort. These kinds of services are always negotiated down to the last cent. In those situations, the margins of call centers are very narrow. However, BerylHealth's services are engaged to increase the profit margin, as a result of which the added value is much greater and, consequently, higher prices can be demanded.

But BerylHealth goes one step further by helping their customers—the hospitals—to reduce costs in other areas. BerylHealth calls patients after they have been treated in hospital. They enquire about their health, give tips for further recovery, provide information and answer questions. As a result, many readmissions are prevented, which saves patients a great deal of trouble. At the same time, it provides the relevant hospital with a considerable cost-saving. It is an example of another win-win situation!

All these services have been placed into four service packages for hospitals:

- CareConnect: marketing information to recruit new patients;
- CareAdvice: recommendations to hospitals regarding patient experiences and patient needs;
- CareMetrics: data analyses of the patient population for targeted deployment of services;
- CareTransitions: follow-up of patients after their discharge, from information to the prevention of readmissions.

Delivery: Telephone, Online and Science The hospitals have frequent contact with BerylHealth—in person, by telephone and via an online platform where they can consult all data, dialing codes and statistics online. The patients of the hospitals are in contact with the call center primarily by telephone. Incidentally, BerylHealth has only one call center, situated near Dallas, where all call center employees sit in an enormous space in a building that used to belong to Walmart. A conscious decision was made in this regard to ensure that there is one common culture. As a supplement to the “regular work” performed by BerylHealth, the Beryl Institute²² was established to conduct research into how customer service can be improved in healthcare. In cooperation with various professors and with the aid of data compiled on a daily basis, scientific papers on this topic are published. The results are made available to everyone (at no cost). In this way a contribution is also being made to the higher goal. Furthermore, BerylHealth participates in the Small Giants Community. This is a movement for corporations with a unique culture that does a lot for the local community, have an eye for customers and perform well. In short, these are organizations that have something special about them. This is also referred to as “mojo” by Bo Burlingham, the author of the book entitled *Small Giants*.²³ Paul Spiegelman fulfills the pioneering role in the Small Giants Community. It is in that context that he publishes books and holds talks and workshops, by which BerylHealth is surrounded by a positive buzz, which in turn results in extra word-of-mouth advertising.

Operation: Culture, Culture, Culture and IT Needless to say, BerylHealth has converted the culture into every detail of the organization. We will single out a few examples below. Firstly, new employees are selected with extreme care and based on the core values. It is striking that the company looks specifically for people without call center experience. Instead, they prefer to attract waiters or customer service employees. Since the new employees are selected primarily on the basis of the core values, they are then forced to take demanding courses in medicine so that they are able to answer all kinds of medical questions. After all, they will act as representatives of a hospital! In addition, significant energy is spent on the development of the BerylHealth culture. Specifically, the core values must be expressed in employees’ daily work. And it is for that reason that a special position has been created focusing on maintaining and promoting the culture. The title of this position—the Queen of fun and laughter—immediately gives an impression of how this is implemented.

Of course, BerylHealth keeps all kinds of indicators up to date, such as the handling time of phone calls and the extent to which a caller is assisted in a single conversation. But the most important indicator is the patient satisfaction level. Patient satisfaction is used to steer operations purposefully, but also to exuberantly facilitate them. Above we made reference to the recruitment and selection, the courses and the attention paid to the culture. But the technical side of the equation must not be forgotten! BerylHealth is immensely proud of its IT systems. These

²² See also: www.theberylinstitute.org/.

²³ Burlingham (2005).

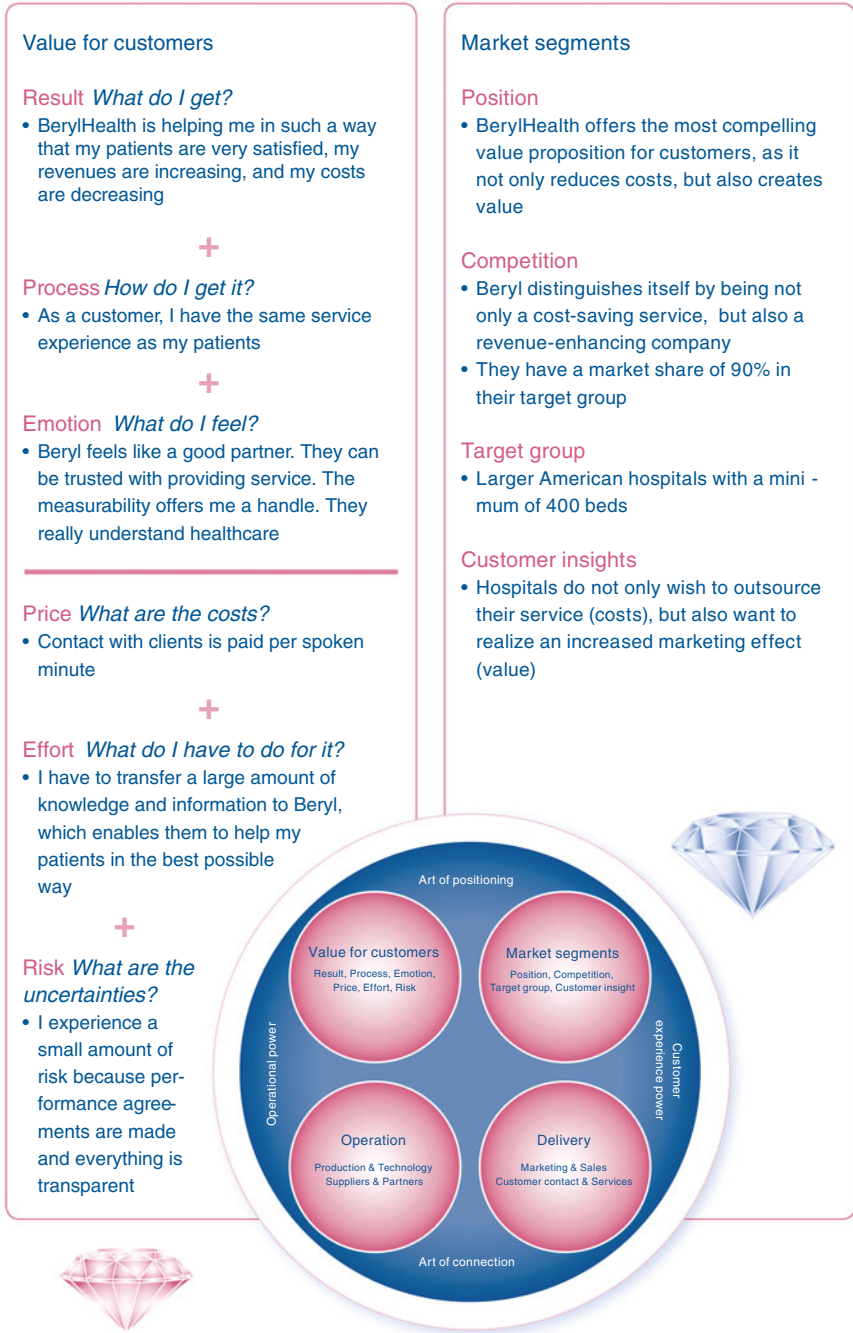


Figure 8.2.2 Value for customers and Market segments of BerylHealth

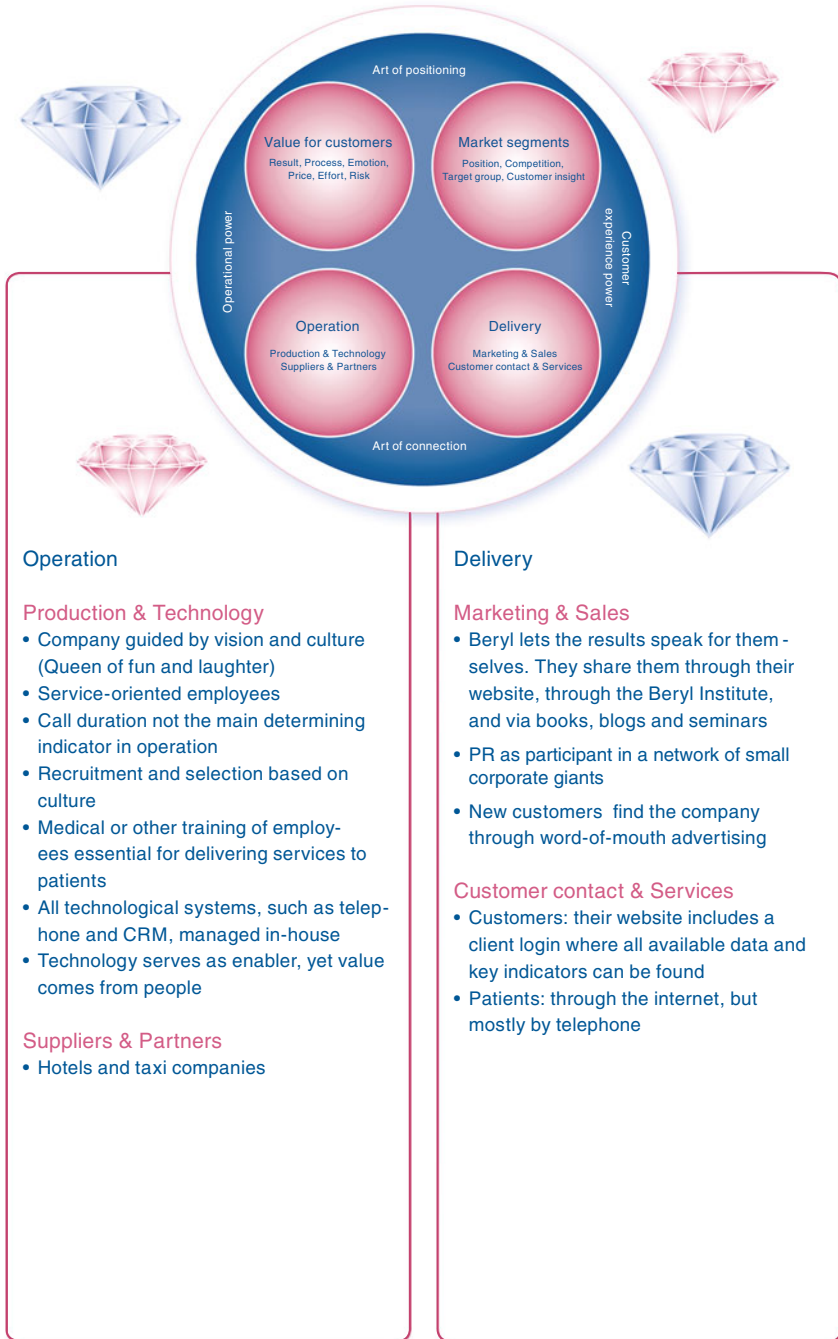


Figure 8.2.3 Operation and Delivery of BerylHealth

have been developed entirely by BerylHealth itself based on the experiences and tips of call center employees. This way they truly have a user-friendly system that employees know very well and can even modify themselves. Everything has been incorporated into the system. For instance, if a patient asks for directions to their hospital in Philadelphia, the employee can tell the patient precisely how to get there. It is almost as if the employees are taking you by the hand and leading you through the city in question, and they even warn you about any roadworks that should be avoided.

Incidentally, BerylHealth has some striking partnerships. For instance, you would not expect them to have an extensive partnership with hotels and a taxi company. Specifically, if managers of a hospital (read: potential customers) visit BerylHealth, it is natural in the USA to fly to the company. After they have been personally welcomed by a BerylHealth employee, guests often stay overnight at a hotel in Texas. In their hotel room they find a handwritten card from BerylHealth—with a snack or some sweets as well. And if they are picked up the next morning, the “BerylHealth” taxi awaits them. The taxi chauffeur wears a jacket and a cap from ... you guessed it: BerylHealth. In turn, the taxi chauffeur knows everything about BerylHealth, the person being picked up and the person with whom the guest has an appointment at the company. All of this is designed to let the customer experience that this is an organization which attaches immense importance to service. And usually part of the deal has already been secured in this way, remarks COO Lance Shipp, in passing while riding on his Segway.

In summary, it can be stated that BerylHealth has laid the foundation for a sophisticated business model. The target group is hospitals with a minimum of 400 beds. The offer is very attractive to customers, specifically not just taking over the telephone customer service, but also improving marketing effectiveness. This extra value creation is then organized in such a way that it costs little additional effort, as a result of which leverage is created which ensures that the business can generate a good profit margin. The organization subsequently invests this profit in the development of its employees and the improvement of its service, thereby creating a cycle of self-improvement: higher profit margins are invested in employees, which raises the level of customer satisfaction and causes the profit margin to rise again.

8.2.3 Result: It Starts with Happy Employees

BerylHealth scores exceptionally high in respect of customers. Its market share is 90%. BerylHealth belongs to the top 20 outsourcing firms in the US healthcare sector. In that regard, its customers are rather loyal: 98% actually remain a customer.²⁴ BerylHealth is valued immensely by the patient (or the citizen). Patient satisfaction

²⁴ See: <http://www.berylhealth.com/ceo-of-the-beryl-companies-is-finalist-for-ernst-young-entrepreneur-of-the-year-award/>.

levels have been persistently high. And thanks to the research and recommendations of the Beryl Institute, the service provided to patients is becoming better and better. Moreover, no one else has all this information. When looking at employee value, we see that BerylHealth has been a Great Place to Work winner several times, both in the state of Texas and at a national level in the USA. This can only be expected when you have a Queen of fun and laughter in your midst!

The results of consistently implementing the business model for the shareholder are pretty clear. As mentioned above, BerylHealth realizes a profit margin of no less than 21%! That is exceptional for a call center business. Based on their growth figures, BerylHealth has made it onto the Inc. 5000 list—the national growth list in America—three times in a row. Further, Paul Spiegelman has won the 2010 Entrepreneur of the Year award. Creating shareholder value is therefore a strength of BerylHealth.

In the meantime, BerylHealth has been steadily working on realizing its vision. At the beginning of this chapter, we indicated that it demands a lot to stay at the top. And since recently, this will become even more difficult—at least that is our opinion! The reason is that during our last visit, it transpired that Paul Spiegelman had sold BerylHealth to Stericycle. He weighed up this decision carefully. Previous attempts by other companies to acquire BerylHealth had failed. For instance, in 2003 a competitor announced that it wanted to purchase the business. However, after a couple of months of discussions, Paul discontinued negotiations because they were not proceeding honestly. In 2009, Paul entered into discussions with a private equity company. But that deal also floundered, because the boys from the private equity firm were only after the big money instead of realizing the higher goal. In fact, this was immediately evident from the flashy cars they drove, the expensive hotels they stayed in and the exclusive bottles of wine they ordered.

In 2012, however, a deal was done. Stericycle also has operations in the health-care sector, but not in the same field as BerylHealth. Stericycle really wanted to grow and saw the acquisition of BerylHealth as an opportunity that also matched their vision. Paul trusted these men and noticed that they were also driven by the same values that drive BerylHealth. It also became evident that Stericycle greatly valued the culture and people of BerylHealth. Thus arose the deal, with the idea being that the BerylHealth model would be scaled up to 12,000 employees in 12 countries.²⁵ Nonetheless, discussions are being held about adjusting the core values. At the same time, the question is whether the BerylHealth culture can simply be rolled out from that one large space in Texas and exported to so many new people in all these different countries. The next few years will reveal whether a brilliant business model with a unique culture as its foundation can continue to be successful if it is incorporated into an organization that is 12 times its current size. Time will tell whether that is possible. In the meantime, we can draw some conclusions from the past few years at BerylHealth and its current approach to work.

²⁵<http://www.inc.com/paul-spiegelman/sell-your-company-what-you-need-to-know.html>.

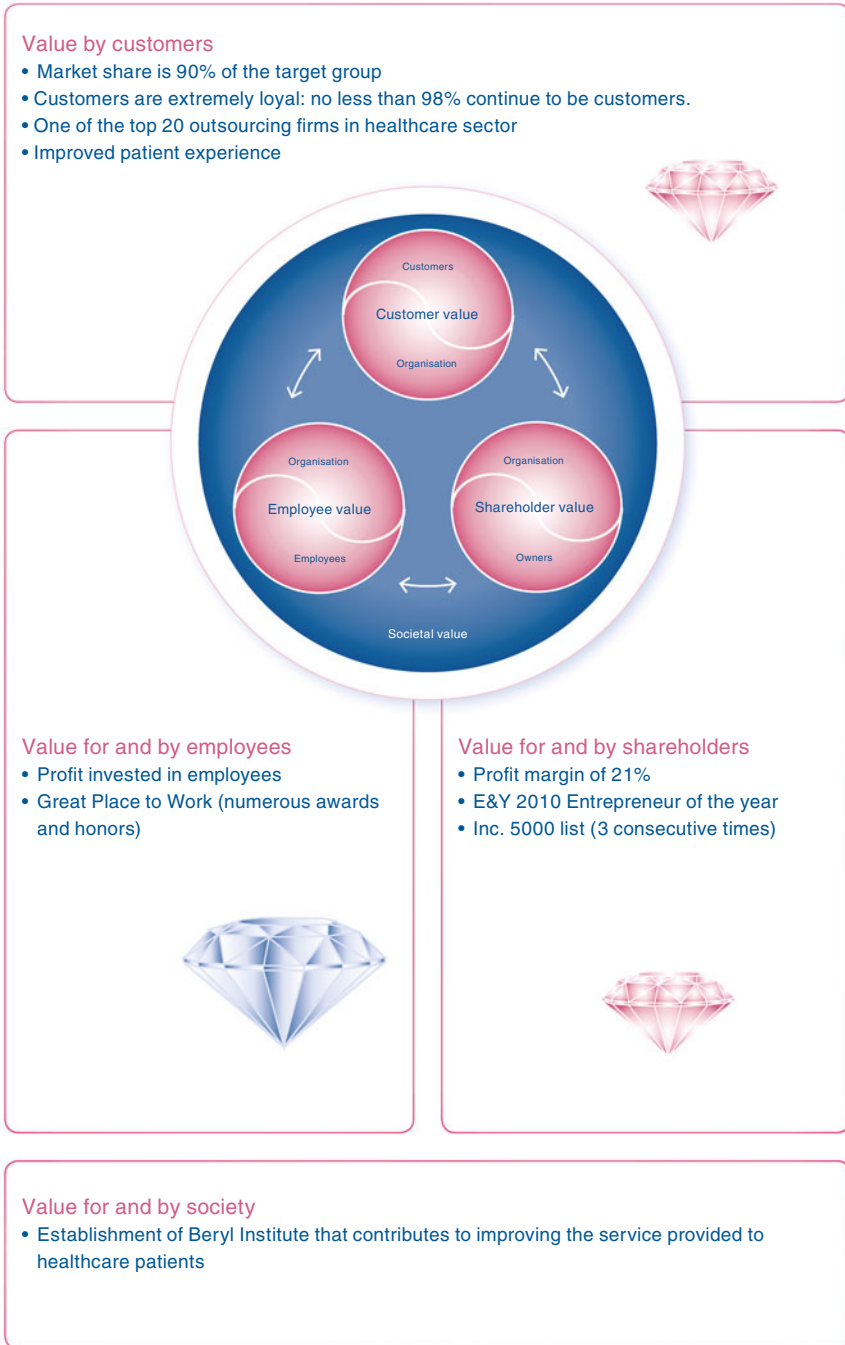


Figure 8.2.4 Value for and by stakeholders of BerylHealth

8.2.4 *The Brilliant Lessons of BerylHealth*

The following lessons can be drawn from the story of BerylHealth:

- Figure out how you can create a whole lot of extra value for your customer with just a tiny bit of extra effort. BerylHealth does just that by posing a couple of extra questions to patients who call. This makes it possible to measure marketing effectiveness and offer a lot of additional value for their direct customers, the hospitals it targets.
- Dare to select a target group. BerylHealth consciously chooses hospitals with more than 400 beds. This choice makes it immediately clear who your customers are *not* and enables you to focus better on what actually preoccupies your true target group. Consequently, you are better able to assist them, as a result of which they become more satisfied and recommend you to others, which in turn enables you to keep growing. If you do not make a choice for a particular target group, you will be everything to everyone and eventually nothing to anyone.
- Ensure that you are on the revenue side of the ledger instead of on the cost side for your customer. You can learn from BerylHealth to offer a service that generates greater turnover instead of one that is to be outsourced at the lowest possible cost.
- Hire employees first and foremost based on their attitude. If service is the most important aspect, this must be your first selection criterion, also if applicants come from different sectors. Whereas knowledge can always be brushed up on, attitude is far more difficult to change.
- Ensure that you have your IT systems under control. If your services are so dependent upon IT, you must ensure that front-line employees are able to work very well and simply with the systems you have in place. That might mean you have to develop the systems yourself, just as BerylHealth has done.
- This last lesson, however, might be the most important. BerylHealth shows that culture is a crucial part of a business model that requires a great deal of investment. The entire business model of BerylHealth would collapse if a service-oriented culture were not paired with a passion for patients. Ensure therefore that your culture is safeguarded in the management team, even if that does not per se mean via nutty titles such as the Queen of fun and laughter. Although ...

8.3 M-PESA

Smart scalability

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Prelude *Developments in mobile telephony offer a growing number of opportunities to pay for and insure healthcare on the one hand, and to provide healthcare services on the other. The truly impactful and innovative concepts, however, are not necessarily found in cities such as Geneva, London or New York. No, they are rather to be found in Kenya, at Safaricom with its mobile financial service M-PESA, which in Swahili literally means “mobile money.”²⁶ Prior to the introduction of M-PESA, Kenyans saved some money that they set aside for tomorrow or borrowed money to pay for today’s bills. Cash funds earmarked for supporting oneself were kept at home or stashed away at the home of a good friend for rainy days. Saving for the future of children occurred, for instance, by way of purchasing jewels, which held their value. That or Kenyans collected a pile of stones, so that at some point they were able to build an extra room for their home. According to estimates, more than two billion people around the world still live in circumstances like these. The lack of a good financial infrastructure is doubtless one of the reasons why people are permanently caught in a spiral of poverty. Their incomes vary and often fluctuate daily. Without any reliable way to deposit or withdraw money in bad times, they are occasionally confronted with the difficult decision of either taking their children out of school or putting less food on the table.*

M-PESA was founded as a micro-financing initiative of Safaricom for Kenya. It has turned out to be the most successful innovation in the past few years in the world of financial services in developing countries. In spite of (or perhaps because of) the difficult times, a strong entrepreneurial spirit and sense of creativity have combined to ensure that major problems and challenges were overcome. Can you imagine a world without banks in the vicinity? In Kenya, the nearest bank is often 6 miles away while people have to walk, which means you spend 2 h just to get there and then you

²⁶This innovation from the bottom of the welfare pyramid is, for instance, also described by Prahalad (2009).

have to come back. Add the time spent waiting at the bank and you quickly end up devoting 5 h for a simple trip. In other words, you will spend half of your working day going to the bank. Taking the bus, if you can, costs roughly 25% of the money you earn on a good day. Many people simply opt not to have a bank account. Now imagine a world without credit instruments or electronic payments, i.e., no current account, checks, bank cards, money orders, debt collection, or Internet banking. All transactions take place in cash or by way of barter; all exchanges are physical, one to one and from hand to hand. Consider as well all the fuss and the risk associated with sending money to distant relatives, business partners or banks. Could you work in a world like that? Thankfully, there is now a solution for this type of world and it is found in M-PESA! M-PESA uses the informal structures of sharing and transferring money between family and friends on the one hand and city and countryside on the other. Thanks to the possibility of banking by mobile phone, the connection has become both stronger and simpler. At the same time, people have more ways to save and pay for agriculture, education, and healthcare.

Introduction Mobile phone operator Vodafone changed the lives of Kenyans forever when in March 2007 it introduced to the market the revolutionary M-PESA via its Kenyan subsidiary Safaricom. With M-PESA, everyone is able—even with the simplest of mobile phones—to deposit money into an account, transfer money to other users (including sellers of goods and services) via a text message and convert credit balances into cash. Users are charged only a small fee to transfer and withdraw money. M-PESA is completely focused on transferring funds simply and efficiently. Via M-PESA, people in the countryside are not only connected with one another, but also with their friends and family in urban areas. In this way, it has become possible to send and receive money for essential expenses such as for paying school fees and healthcare costs. All hospitals in Kenya currently accept M-PESA for both clinic and outpatient services. But that is not all! Thanks to the mobile financial service, it becomes possible to undertake an initial step toward a new healthcare system in developing countries.

8.3.1 The Cornerstone: Simple, Efficient, and Customer-Oriented

The brand essence for M-PESA is clear and deeply rooted in the organization, a simple and efficient mobile financial service. M-PESA developed extremely quickly; it is now the most successful mobile-phone-based financial service in the Third World. In 2012, Kenya had some 17 million M-PESA accounts registered, via which roughly EUR 445 million per month circulated—an amount equivalent to 20% of Kenya's BNP.²⁷ The organization primarily aims to offer affordable, reliable, and customer-oriented mobile financial services to everyone.

²⁷ <http://www.wamda.com/2012/11/cashless-in-kenya-a-mobile-money-experiment-using-M-PESA>.

Let us first go back to the origin of this inspiring organization to see where this vision came from. In 2002, researchers at Gamos and the Commonwealth Telecommunications Organization (CTO), financed by the Department for International Development (DFID), discovered that people in Uganda, Botswana, and Ghana were using their call minutes as a way to transfer money. As it turned out, call minutes were being sent to family members and friends who then used or sold on these minutes to generate a source of income. The researchers at Gamos contacted M-Cel in Mozambique to share their discovery and in 2004 M-Cel introduced the first authorized credit exchange via calling minutes, a predecessor of M-PESA. The idea was discussed by the Commission for Africa and DFID and introduced to the researchers of Vodafone, who were thinking of supporting micro-financing and back-office banking via mobile phones. Simon Batchelor (Gamos) and Nick Hughes (Vodafone CSR) then considered how a payment system could be set up in Kenya. The pilot phase began 1 year later. In 2007, M-PESA was introduced to the market by Safaricom, the largest provider of mobile telephone services in Kenya (market share exceeding 75 %) and partly owned by Vodafone (more than 40 %).²⁸ The audacious goal to help create an economy whereby people no longer need be concerned about their day-to-day worries, but rather are able to make plans for their future and the future of their children was slowly becoming a reality with every improvement made along the way. M-PESA was designed first and foremost as a system by which micro-financing debts could be paid off so as to effect lower settlement fees as a result of which lower interest rates became possible. After the tests in the pilot phase, however, the system was expanded to include a general payment transaction scheme. As soon as customers have registered, they bring money into the system by depositing cash at one of the 60,000 Safaricom agents (usually a shop or outlet that sells, among other things, calling minutes) who deposit the money on the customer's M-PESA account. Customers can then withdraw money by going to another agent. This second agent checks whether the balance is sufficient before debiting the account and handing over the cash. Customers can also transfer money to other persons or organizations via a menu on their mobile phone. With this new system, money can be sent quickly, securely, and simply from one place to another. Customers no longer have to walk around with a lot of cash in their pockets or ask others to carry or transport it for them. This way mobile financial services are becoming available to everyone with a SIM card! This is the brand promise of M-PESA and it is particularly useful in a country where many employees in cities send money back to their family members in the countryside. Thanks to electronic transfers, both time and money are saved, whilst the associated risk is reduced, as a result of which people can be more productive in other areas.

²⁸<http://blog.usaid.gov/2013/04/video-of-the-week-animating-M-PESA/>.

Dozens of mobile money systems have been introduced to the market, but M-PESA has become the most successful. How is that possible? Let us take another look at the organization's beginnings. The system offers a number of advantages and the correct path was taken a number of times.²⁹ The values and core competences of Safaricom played an essential role. When M-PESA was introduced, Safaricom already enjoyed a dominant position in the market and used it efficiently to set up a simple, accessible, and effective marketing campaign ("send money home"). After the introduction, Michael Joseph, former CEO of Safaricom, invested large sums in new SIM cards on which M-PESA software was preprogrammed. All existing customers of Safaricom received this new SIM card without having to pay a cent. In this way, all existing Safaricom customers were able to use M-PESA immediately after its introduction. Another external and enabling factor was the decision at that time of the regulatory body to continue the scheme on an experimental basis but without any formal approval. This led to an efficient system by which cash could circulate behind the scenes. Specifically, M-PESA was not viewed as a bank and did not, therefore, fall under those regulations. M-PESA uses banks for depositing money and receives interest thereon; the organization itself is not, however, a bank. It works in such a way that M-PESA uses this interest via the M-PESA Foundation to finance three types of social programs: Agriculture, Healthcare, and Education. A further external influence originated in the violence that occurred after the elections in early 2008. This led to a distrustful society. The focus of the organization on reliability gave customers a solid basis in which they were able to trust. This played an important role in the development of M-PESA. In the first instance, M-PESA was used to transfer money to people who at that time were stuck in the slums of Nairobi. In addition, some Kenyans also considered M-PESA as a safer place to keep their money than banks which enjoyed little trust because they caught up in ethnic differences. Once a file of initial users was set up and everyone had access via a new SIM card M-PESA was able to profit from network effects and an innovative approach. As the service became relevant to people, the critical mass was achieved: the more people who made use of the service, the more logical it became for others to register as well. An important driver was affordability. The organization always had it in the back of its mind that the service had to be provided at low cost in order to remain affordable and accessible to as many people as possible. In developments in the years that followed, a customer-oriented approach also played an essential role. Core qualities of M-PESA include listening to customers in order to involve them in the development process, as a result of which the service became simple and innovative. In combination with the aforementioned factors, this has resulted in the success outlined by the executive director of the M-PESA Foundation, Les Baillie: "As the situation currently exists, 75 % of the adult Kenyan population use M-PESA on a daily basis."³⁰

²⁹<http://www.cgap.org/blog/10-things-you-thought-you-knew-about-M-PESA>.

³⁰http://www.pharmaccess.org/RunScript.asp?page=24&Article_ID=254&NWS=NWS&ap=NewsDetail.asp&p=ASP~Pg24.asp.

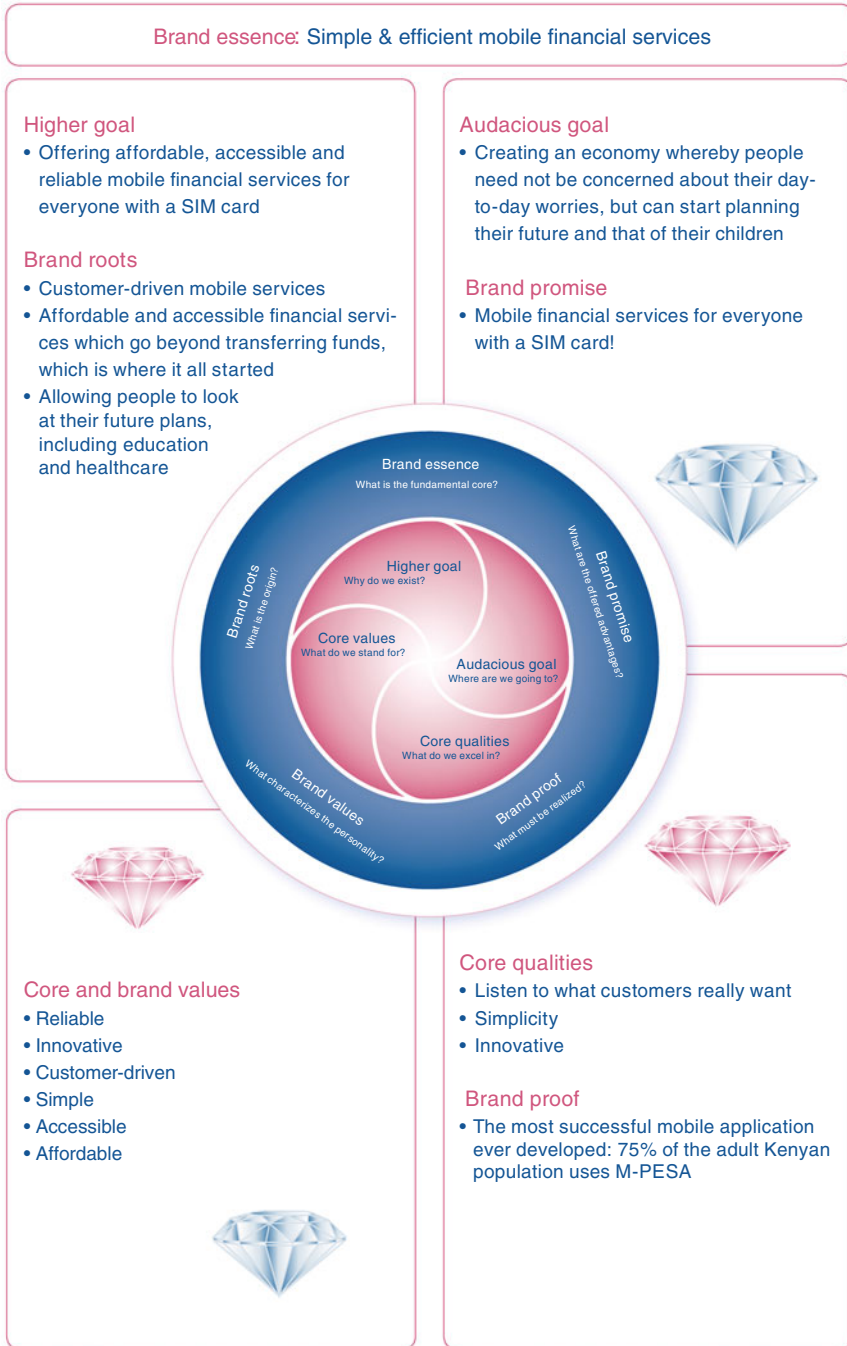


Figure 8.3.1 Vision and Positioning of M-Pesa

With the foundation of a payment system and of international money transfers in place upon which services that add value could be built, a range of various health-related mobile financial services can be established on this same infrastructure. Customers want to use the payment system services for many suppliers, such as healthcare practitioners, for which they need larger or unexpected amounts. This provides a better access to healthcare when required. From prepaid credits to health insurance, mobile platforms are attempting to ensure that affordable healthcare is not exclusively a luxury, but rather a universal right. M-PESA provides a platform by which not only products and services are sold, but also the service is used as an interaction point for providing information about healthcare.

8.3.2 The Business Model: Secure Banking and Living in Safety

Market Segments: Simply Changing the Lives of People The Kenyan market is characterized by a low per-capita income, a relatively stable political situation (at the time of introduction to the market) and a quick habituation with the use of mobile services by the population. The expectation is that in 2016 more than a billion people in Africa will make use of mobile telephony.³¹ Safaricom's market share in Kenya amounted to more than 75 % when the service was introduced. Thanks to this massive basis, a network effect was able to take place, which expressed itself in the large number of consumers who started using the service. The customer base of more than 17 million Kenyans can no longer imagine life without M-PESA. In 2013, 75 % of the market was using M-PESA's services. Despite the very modest revenues per transfer, the service still manages to generate a profit thanks to scale. Since its introduction, M-PESA has a market share of roughly 65 % and Safaricom a market share of almost 80 %. Seventy percent of all financial transactions in Kenya are conducted via M-PESA.³² The success of M-PESA follows on strongly from the success of Safaricom, which is partially owned by Vodafone. M-PESA was set up by Vodafone in cooperation with Safaricom. Safaricom is the first and largest mobile telephone company in Kenya. It was established in 1999 and already had no fewer than 11 million customers by 2008. The impressive growth of M-PESA is largely due to the decision to provide every Kenyan customer with a new SIM card programmed with M-PESA software after the introduction of the company. As a result, all Safaricom customers were instantly able to use M-PESA. And even at the time of writing, the service's growth figures were still high, with roughly 10,000 new subscribers per day. When the service was introduced, there was not a lot of competition. The biggest competition at that time came via other ways to transfer money which were more time-consuming as well as more expensive, such as trans-

³¹ Peter Diamandis, *A World of Abundance*, 21 November 2013, Carré Amsterdam.

³² <http://webcolleges.uva.nl/Mediasite/Play/e4832ffc580f49cf84e59e11f776e8e11d>.

fer offices (expensive and not trusted a lot), informal channels (lorry drivers who act as couriers in return for a fee), a family member (not always safe) or personal delivery (time-consuming). M-PESA's target group consists of SIM cardholders of Safaricom. It began organically with Kenyan holders of a Safaricom SIM card who wanted to make payments or transfer money. In fact this applies to all inhabitants of Kenya. In Africa—and in particular in Kenya—people have become used to having more than one SIM card from different providers. People either do not have any telephone or they have one with several SIM cards, because telephones are expensive and SIM cards cheap. In other words, the provider of SIM cards faces the challenge of ensuring that customers keep their cards activated. The solution to this challenge is to issue a provider-linked service such that people benefit so much from it that they continue to use this provider's SIM card. For Safaricom, this was the most important customer insight behind the success of their business. The introduction of this service as an add-on now means that Safaricom has profited from it, because these SIM cards are used more often and M-PESA can be used to reach a number of potential customers via the Safaricom customer database. The step that the organization will now take and will initially promote via the M-PESA Foundation is to exercise significant influence in the field of healthcare, education and agriculture. Safaricom's gigantic database could have enormous consequences for society at large. The areas in which current innovations in healthcare are taking place are: communication, for instance by ensuring that physicians in countries such as Ghana can call each other for free; information, for example by setting up a healthcare service, including a toll-free telephone consultation with a nurse; and financing, for instance by making payment for healthcare services simpler via a health wallet. These initiatives and innovations are now in the pilot phase and financed with donations. As soon as the golden egg and the enabling factor in healthcare have been discovered, it will become an add-on service and therefore part of the regular core business.

Customer Value: A Big Selling Point The brilliance of M-PESA is that it is very user-friendly and affordable and consequently very accessible. Within 10 s users can make payments or transfer money (only three clicks and a PIN code are required). In addition, all actions can be performed on a mobile phone in combination with a local shopkeeper where users can deposit or withdraw money. Thanks to the ease of use and the speed of this method of banking, people can now use their time and money more efficiently. Another attractive advantage is that customers feel safer. After all, you no longer have to walk around with your pockets full of money and be scared of having them picked. Mobile financial services like M-PESA also play an important role in security at another level. In research conducted by Georgetown University, it was concluded that "... households that have access to M-PESA and are situated close to an agency, are better able to maintain their purchasing power in times that their income suffers a hit."

Safaricom has kept the price of the product very transparent and lower than that of alternative services. The product is simple, efficient to use and very cheap, cer-

tainly if you compare it with the option of personally taking money to the other side of the country or engaging the services of someone to do so on your behalf.

And now M-PESA is expanding its scope by offering new financial services made possible thanks to further digitization. It is interesting to see that several of these services are healthcare-oriented, such as mobile savings accounts which patients can use to plan their finances and save money for their future healthcare needs. Severe injury and funerals are mentioned as the financial emergencies that occur the most. Another example is the aforementioned mobile health wallet. Patients use it to pay the costs of their medical treatment in hospital or medical centers. Each clinic has its own unique number which can be used as a reference number. This type of transaction normally costs money, but since the hospitals share these data with healthcare-oriented organizations such as AAR Healthcare, they are free of charge and boost accessibility. In return, AAR can help the hospitals set up an efficient healthcare system based on the data they receive from the hospitals. Aside from facilitating healthcare-related payments, M-PESA is used to provide relevant healthcare information to people. From a medical perspective, this does not just concern why and how people should save for medical treatments, but it also uses M-PESA for mobile care or mHealth. In this way, people who live far from a hospital receive relevant medical information and preventive education, as a result of which they become more autonomous and less dependent upon medical care provided by experts. And if users do need help, they can first consider attending a virtual consultation before undertaking the (half-day) trip to the hospital. Some 79% of Kenyans live in remote areas; in those circumstances gaining access to healthcare is difficult. By applying mHealth therefore, M-PESA can make a real difference in the lives of people. This way of providing mHealth is the fastest-growing method of healthcare in Africa. A virtual consultation costs roughly USD 0.70 (EUR 0.60), whereas a doctor's visit quickly amounts to USD 14 (EUR 12). Healthcare is becoming more affordable and therefore increasingly accessible for many more people.

Delivery: Simple Communication and Anticipating Customer Needs M-PESA's marketing and communication are characterized by both simplicity and efficiency. In the first years after launching, it was especially important to position with the strong service brand of Safaricom as doing so offered trust and affinity. At the start of the service, the communication was simple and focused on guest workers, as was evident from the slogan "send money home". A large portion of the customer contact proceeds via clear instructions on the mobile phone; the next contact point is the local shopkeeper who is paid by M-PESA for his/her services. The presence of local agents where money can be deposited or withdrawn can, of course, be a very costly affair. However, what Safaricom does extremely well with M-PESA is to use the network that was already in existence and extended upon existing distribution. Delivery is based on contracts with existing, local shopkeepers who are well known and trusted in the neighborhood. With M-PESA, they can add something extra to their package of services as a supplementary source of income. Safaricom selects it

agents with care; after all, they are the face of the company and act as co-guarantors of trust. The already existing, extensive network of sellers of Safaricom call minutes has been and is being fully exploited to set up a reliable, consistent network of shops.

Every agent must meet the requirements of M-PESA (including an assessment and training) in order to become an authorized retail agent. Safaricom guarantees consistent branding, training and continuous supervision of the shops for the purpose of effecting the right customer experience. Furthermore, it has a special call center customer service available. In Kenya, especially since not everyone is literate, the likelihood of people making a mistake and sending money to the wrong person is greater. Safaricom works with back-office support in order to help people retrieve their money where possible. M-PESA has its own dedicated call center to do that. Safaricom guarantees very high quality customer service. Thanks to the strong back-office support, the business has not only engendered trust, but also attracted users afraid of technology.

An important factor in the commercial success of Safaricom—and by extension of M-PESA—is the ability to listen. This amounts to listening attentively to what the customer wants and quickly responding to these needs. By listening to the customer, M-PESA was able to convert the payment of microloans into helping people make P2P (person-to-person) payments to friends and family. A few years after the company's launch, customers started to say that they wanted to make cross-border payments to family in other African countries or that they wanted to receive money from family residing in more developed parts of the world. This was reason enough to dig everything out of the archives to realize these demands. M-PESA properly understood the message that the customer is king. M-PESA understands that the organization can only exist if customers consider it relevant and that it can only continue to be relevant by offering customers what they want or need.

Since the organization has an extensive customer database, it understands more and more that it can play an important role in society—by informing people about healthcare-related topics or training opportunities. In this way, customers receive information, for instance, on hygiene, nutrition, and pregnancy. M-PESA makes this information available to everyone. This education is in turn required to undertake the next step in the direction of other financial services or in offering healthcare insurance.

Operation: Accessibility as a Boundary Condition Since M-PESA began as an additional service for the Safaricom SIM card, an important part of M-PESA's services is facilitated by Safaricom. Safaricom and M-PESA maintain close contact with their customers to give them access to the right information at all times and maintain a high level of trust. If the server is slow, for example, it notifies its users so that they are not unsettled. The reason that customers have a high level of trust has everything to do with the company's customer focus thanks to a very responsive back office. Safaricom always keeps a finger on the pulse of the consumer. The combination of the service with very simple communication is the key to success.

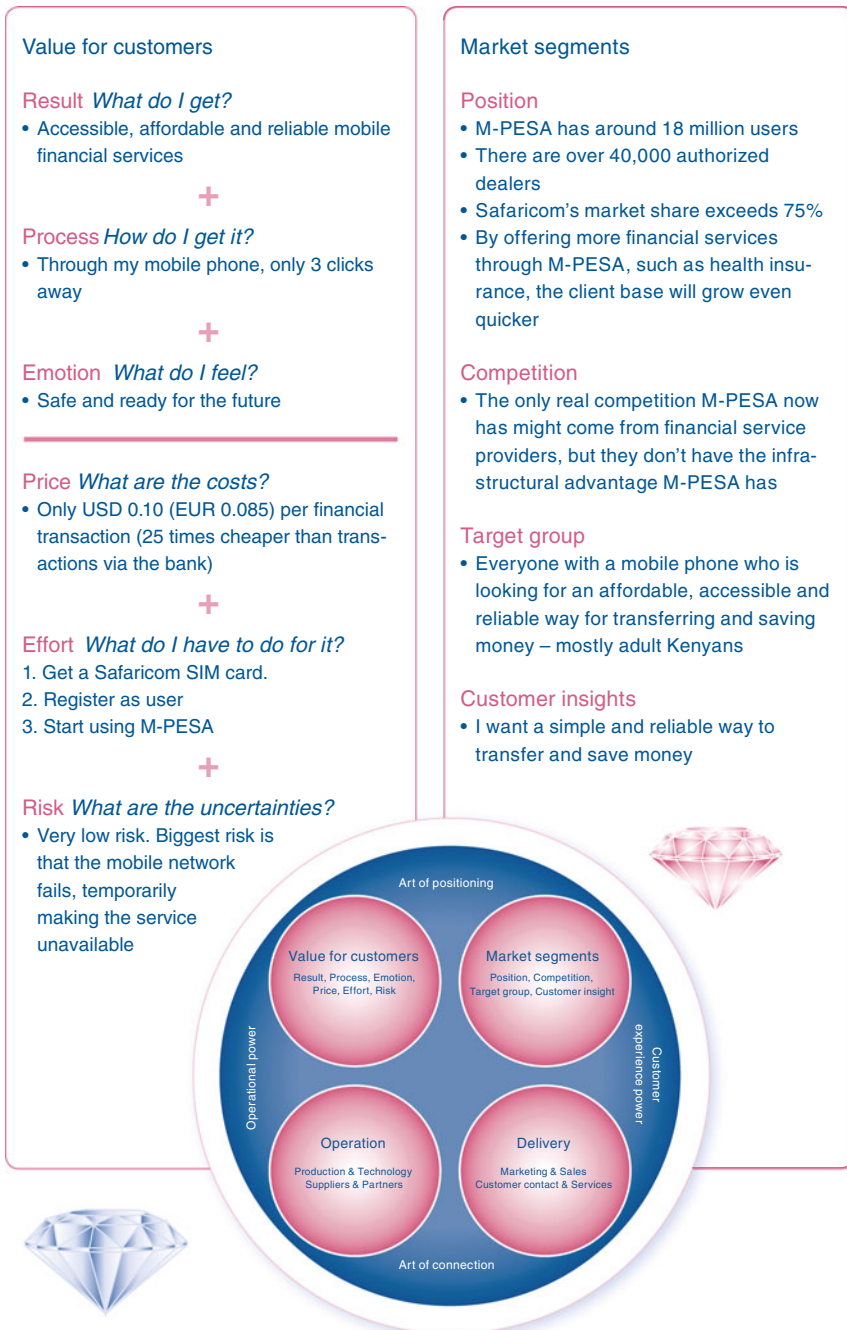


Figure 8.3.2 Value for customers and Market segments of M-Pesa

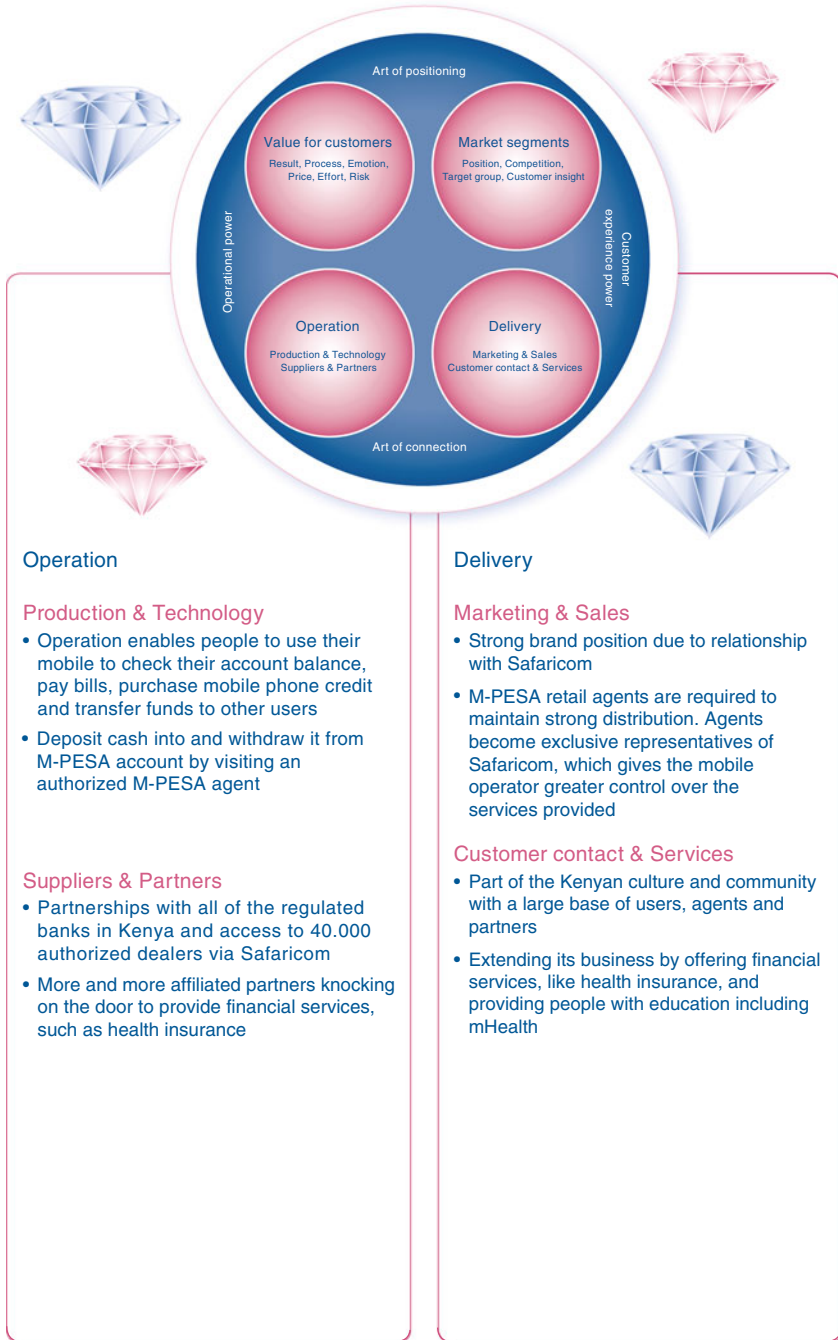


Figure 8.3.3 Operation and Delivery of M-Pesa

To gain access to the services of M-PESA, new customers sign up at an authorized retail agent. After registration, customers receive a personal electronic account managed by Safaricom. Safaricom deposits the value of the money that its customers have deposited in their M-PESA accounts in an umbrella account at a bank. Safaricom therefore issues the M-PESA accounts. The balances are situated at the commercial bank collaborating with M-PESA. Consequently, Safaricom does not take over the role and function of the bank, but rather focuses on facilitating the transaction. Given that M-PESA is not positioned as an alternative to banks, the know-your-customer regulations and requirements are not so strict. By contrast to what happens at the banks, users only need to identify themselves to gain access to the service. As a result, the service is increasingly becoming accessible. In particular to people in the countryside, where proof of where one lives and other documents usually demanded by banks are difficult to come by. The relationship with both the bank and the government is important: Safaricom has involved the Central Bank of Kenya since the launch of the organization and continues to work together with it. On 4 May 2009, the Central Bank gave the instruction to audit the M-PESA service of Safaricom. The Kenyan government was concerned that criminals could use the service to launder money. Safaricom passed the audit thanks to completely transparent activities and the proactive sharing of data. The Central Bank then declared the service secure and in compliance with the government's objectives for financial inclusion.

8.3.3 Result: “Relax, You’ve Got M-PESA”

M-PESA started as a corporate social responsibility initiative for micro-financing, but was soon converted into a successful enterprise. That was of primary importance, because charity is not scalable, while a money-earning company is. An investment to provide free SIM cards to all with M-PESA software would for instance never been conducted for charity alone. M-PESA has meant a lot to the people of Kenya. They are better able to make plans for the future—whether it concerns planning for their own home, their children's education or medical treatments. That is why M-PESA is more than just mobile money. It is an infrastructure that not only provides access to financial services, but also makes all kinds of other services such as healthcare-related services available to everyone with a mobile phone.

As discussed in the business model, prior to launch customers created value for M-PESA by indicating and showing through their actions what they were looking for in financial products and services. In the area of customer confidence, M-PESA scores very high according to the independent trust Financial Sector Deepening Kenya (FSD), whose objective is to support the development of inclusive financial markets in Kenya. Research conducted by FSD Kenya demonstrates that more than 90% of M-PESA's users believe that their money is safe.³³

³³http://www.fsdkenya.org/pdf_documents/11-02-14_Mobile_payments_in_Kenya.pdf.

As a service, M-PESA plays a pivotal role in the daily lives of its customers. The Safaricom SIM card is therefore significantly less exchangeable with those of competitors. Consequently, loyal M-PESA customers are creating a large degree of brand loyalty for Safaricom. The more the customer database of M-PESA grows, the more the customer database of Safaricom grows, which ultimately contributes to customer loyalty. Its market share continues to grow and by the middle of 2013 had reached a record high. Vodafone, one of the shareholders with a 40% stake in Safaricom, profits as a result thereof. Since the introduction of M-PESA, Vodafone has continued to be a principal owner of M-PESA. In return, Vodafone receives some 10% of the turnover of Safaricom³⁴, which was roughly USD 20 million (EUR 17 million) in 2013. Banks also profit from the growth and success of M-PESA, since money is deposited into their accounts via M-PESA.

M-PESA works with more than 60,000 agents, mostly local shopkeepers providing an extra service by acting as replacements for cash machines. In this way the agents are assisted in several ways. Firstly, they are helped by the extra source of income in addition to the articles sold in their shops. Secondly, shopkeepers previously were confronted with the problem that they had too much cash in their shops (which could be unsecure). This problem has been resolved since the money is deposited by the M-PESA customer. And thirdly, this extra service ensures that more customers come to shopkeepers' stores. The question is: what does M-PESA get in return for all of this? First and foremost, M-PESA acquires a close network of trusted local agents who are the face of the organization in an environment where little trust exists.

The value for society is evident in many ways: money is used more effectively (quicker and safer and at lower costs); businesses can make mobile payments instead of using cash; crime rate is lower (electronic transfers result in less crime); and the system creates employment. Furthermore, international cash transactions allow Kenyans to offer financial support to family members living abroad and to receive it. Thanks to the high degree of market penetration as well as the original corporate social responsibility intent of the organization, M-PESA has started playing a role in initiating social-welfare challenges, such as creating awareness in the field of insurance policies and launching healthcare and study (e-learning) programs. Examples of this include healthcare programs that are being implemented by various foundations—such as the Health Insurance Fund—in various fields, including pregnancy, hygiene and nutrition. In addition, the network is also being used to solicit funds. And given the high degree of solidarity among the Kenyan population, much of the money flows via M-PESA to people who have the least amount of money.

³⁴ <http://www.businessdailyafrica.com/Corporate-News/Vodafone-takes-home-Sh2-3bn-of-M-PESA-revenue/-/539550/1852810/-/m9igv0/-/index.html>.

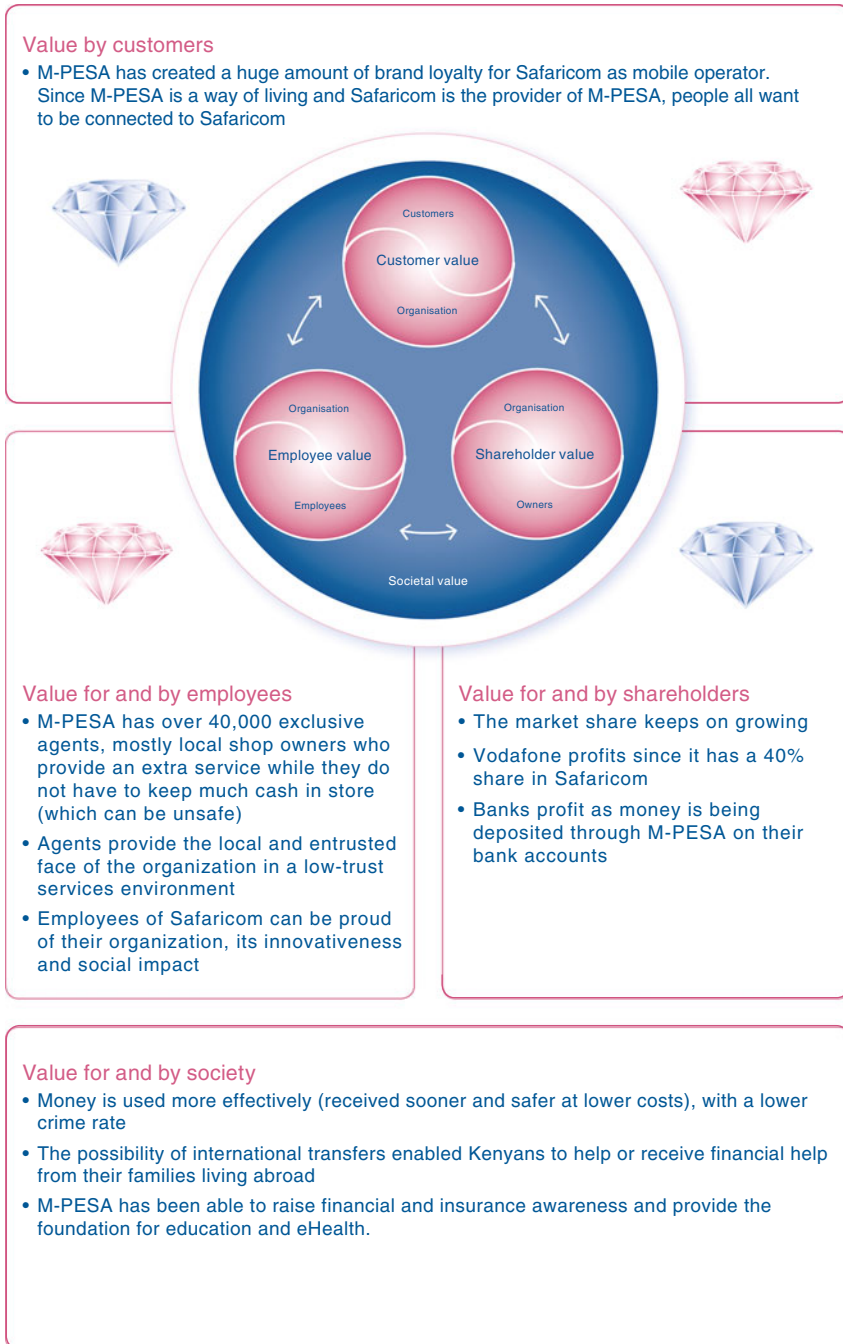


Figure 8.3.4 Value for and by stakeholders of M-Pesa

8.3.4 *The Brilliant Lessons of M-PESA*

After a thorough review of M-PESA's vision and mission, its business model and its value creation, the most important insights into this organization are set out below:

- Charity is not scalable, business is. If M-PESA had continued operating as a corporate social responsibility initiative and not been converted into commercial operation, it is very likely that it would not have had the same societal impact. In other words, earning money and “doing good” at the same time can go hand in hand! The investments in the launch and the success which followed enables its scalability. If you want to make products or services available to a large group of customers, ensure that it is clear what they are about and that they are accessible.
- Make products relevant by looking at actual behavior of customers. It really can be as simple as that. If you keep your eyes and ears open in relation to customers, you will acquire all the insights to succeed. If you then combine these insights with innovation, the greater the likelihood that this will be the start of a brilliant business model.
- Why not use existing channels and infrastructure? Be smart—utilize existing networks. Even more so when it comes to distribution is the fact that it is vital to go the extra mile for the customer.³⁵ Otherwise, distribution channels can be very expensive, certainly in personal contact. By using existing channels, employees can be active locally and on a personal level without the associated high costs.
- Look for a way to strengthen one self-financing business model with another self-financing business model. This can be done, for instance, just as M-PESA provided an add-on service—one that is relevant to the customer but does not require any investment or only a small investment for the existing parent organization and distribution partners. It will ultimately result in lower costs and access to a broad market.

8.4 The Jaipur Foot of Bhagwan Mahaveer Viklang Sahayata Samiti (BMVSS)

Mass innovation for people without a handicap

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³⁵Rhyne (2009).



Prelude As a small girl, Sudha Chandran³⁶ (1964) has already demonstrated her striking talent for dancing. Her father does not permit Sudha to participate in sports or play outside too often³⁷ as he is concerned about injuries that could hinder her career or dance training. Her future looks rosy, but in 1981 fate intervenes. Sudha is injured in a bus accident and her leg develops gangrene because her wounds are not treated properly.³⁸ Doctors have to amputate her right leg to save her life.

From that moment on, Sudha's life changes dramatically. She is suddenly disabled. In India that means, generally speaking, that you are no longer able to participate fully in society. Sudha refuses to believe that she will never walk again. Her passion reinforces her mission, so she starts looking for a way to be able to dance again. In her quest, she hears about P.K. Sethi, an orthopedic surgeon, and writes him a letter. He replies that it might be possible for her to dance once again with a prosthesis, specifically with the Jaipur Foot.

After this prosthesis is measured for her, she is able to walk—but she wants more. Through sheer perseverance and will power, she is ultimately able to dance again. This achievement became known in India and Sudha's story became increasingly well known. In 1984, a film based on her life story was screened. In it, Sudha herself played the main role. Since then she has become a famous dancer, TV and film actress in India and beyond. She has also become a symbol of hope for millions of disabled individuals. Pupils in India learn about her life story.³⁹ Without the Jaipur Foot, she could never have reached these heights.

Introduction Due to a special collaboration between a sculptor and a group of doctors, Jaipur Foot has permanently changed the lives of more than a million people over the years. This artificial foot may have been developed back in 1968, but the Jaipur Foot is still a work of art in the world of prostheses. The “artwork” was created by Ram Chandra, an innovative sculptor. The “footwork” was designed by S.M.S.

³⁶ Meenu (2009).

³⁷ Patel (2011).

³⁸ <http://msmunited.com/uncategorized/sudha-chandran-inspiring-story-dancer-part-1>.

³⁹ Meenu (2009).

Medical College Hospital together with a number of orthopedic surgeons (including P.K. Sethi). The Jaipur Foot is an answer to the prohibitive costs of prostheses made in the West and the limited usefulness thereof in Indian living conditions. For the purpose of promoting the prostheses, it was decided not to patent the Jaipur Foot. This is a philosophy aimed at sharing—something currently also seen in the open-source work of Linux. In 1975, the nonprofit organization Bhagwan Mahaveer Viklang Sahayata Samiti (BMVSS) was founded by Mr. Mehta, Dr. Purohit, and Dr. Bapna, among others, to ensure that the prostheses would become available to a greater portion of the populace. The technology is still freely available today.⁴⁰

BMVSS is the world's largest nonprofit organization for the benefit of physically disabled individuals. The Jaipur Foot was developed further and other aids have been added over the years. Each year BMVSS helps approximately 65,000 people receive a prosthesis or other orthopedic aid. To date, some 1.3 million individuals have been helped. BMVSS also operates on an international level, such as in conflict areas. Typical for BMVSS is the ease with which it can be approached by patients and the quick turnaround time for helping them. They can seek assistance at any time of the day in one of the 22 clinics across India and one of the camps in 26 countries. They may stay there at no charge while their prostheses are being measured. They are helped within 1–3 days on average, upon which they may leave with their prostheses or another orthopedic aid. Patients come from throughout India for the Jaipur Foot. The prosthesis does not cost them a cent and is amazingly well suited for difficult living conditions in developing countries like India. It actually enables individuals to participate fully in society once again.

8.4.1 The Cornerstone: A Prosthesis at Hand

In India an average of 25,000 people a year lose a limb due to illness or accident. A majority of the population lives below the poverty line and is consequently unable to afford insurance, healthcare costs or a prosthesis.⁴¹ People lose limbs quicker in poor countries than in the West. This is caused, among other things, by illness, accidents due to unsafe conditions and landmines, or the inability to effectively combat the complications thereof. This is also the case in India. Although polio has been eradicated in India, there are still some four million people who have to live with the consequences of this disease. Diabetes and wound infections are important causes of amputations.

Dr. Bapna, Dr. Purohit and Mr. Mehta see it as their duty to help underprivileged patients who are amputees. There is no organization other than BMVSS in India where patients can receive a made-to-measure prosthesis at no charge. It is no surprise then that the higher goal of BMVSS is “physical, economic and social reha-

⁴⁰ Menon and Kumar (2008).

⁴¹ Mack et al. (2003).

bilitation of the disabled, so that they regain their mobility and dignity, thereby making them normal, self-respecting and productive members of society.”⁴² In order to achieve this, BMVSS produces a prosthesis at a fraction of the cost compared with one from the West. The unique aspect of a Jaipur Foot is that it costs USD 50 (EUR 40) to produce and measure it. By comparison, a similar prosthesis in America costs an average of USD 12,000 (EUR 9600)⁴³; the costs in Europe are a bit lower, but often exceed USD 5900 (EUR 4700) as well!

Everyone who requires a prosthesis is helped free of charge at BMVSS. One of the founders, Mr. Mehta, explains why: “Once you start asking for a fee for the service, the most vulnerable section of the population is affected, whilst this population group serves society the most.”⁴⁴ The higher goal of BMVSS is implemented by participants focusing on the needs of the disabled instead of on their ability to pay for a prosthesis. For the purpose of focusing on these needs and at the same time providing the prosthesis at no charge, both the production costs and overhead costs are kept as low as possible. An important strategy for monitoring the operational integrity and frugality of the organization is to focus on financial expenses from time to time.⁴⁵ At 14 %, the overhead costs of BMVSS are exceptionally low; comparable nonprofit organizations have an overhead level of 20 %. In that regard, 86 % is spent on the primary process, while the comparable figure for western producers of prostheses is closer to 50 %. Mr. Mehta explains that each dollar is spent on their core objective: “From the beginning, I have aimed for a culture where money is only spent on our goal. We even go so far as to avoid serving tea at our meetings, even though a cup of tea costs a mere two cents in India.”

BMVSS excels in cost leadership and operational excellence which enables them to provide people with a physical handicap with a prosthesis at no charge. The prosthesis is of such high quality that it can even be used in difficult living conditions. The disabled can cycle, run, walk and even dance again. The most vulnerable population group is empowered. BMVSS ensures that the physically disabled regain their dignity and mobility. This desirer is also expressed by Mr. Mehta as follows: “We want to recover and enhance the dignity and self-respect of those we serve.” The disabled can participate fully in society once again.

Aside from the fact that BMVSS enables the disabled to regain their self-respect and dignity, the quality of the Jaipur Foot is equal to that of prostheses produced in the West. A study conducted by Royal Liverpool Hospital into the quality of the Jaipur Foot revealed that it provides the most natural performance compared to other prostheses. The Jaipur Foot comes closest to the flexibility of a real foot or a real leg. BMVSS has become the world’s largest producer of prostheses. Since 1975 it has helped over 1.3 million disabled people. In the clinics of BMVSS, an average of 20,000 disabled people receive a prosthesis every year and 45,000 crutches,

⁴² See: http://www.jaipurfoot.org/who_we_are/vision_and_mission.html op Jaipur Foot (2013).

⁴³ See: http://www.jaipurfoot.org/images/JAIPUR_FOOT_KNEE-LIMB_BROCHURE.pdf op Jaipur Foot (2013).

⁴⁴ Kanani (2011).

⁴⁵ Idem.

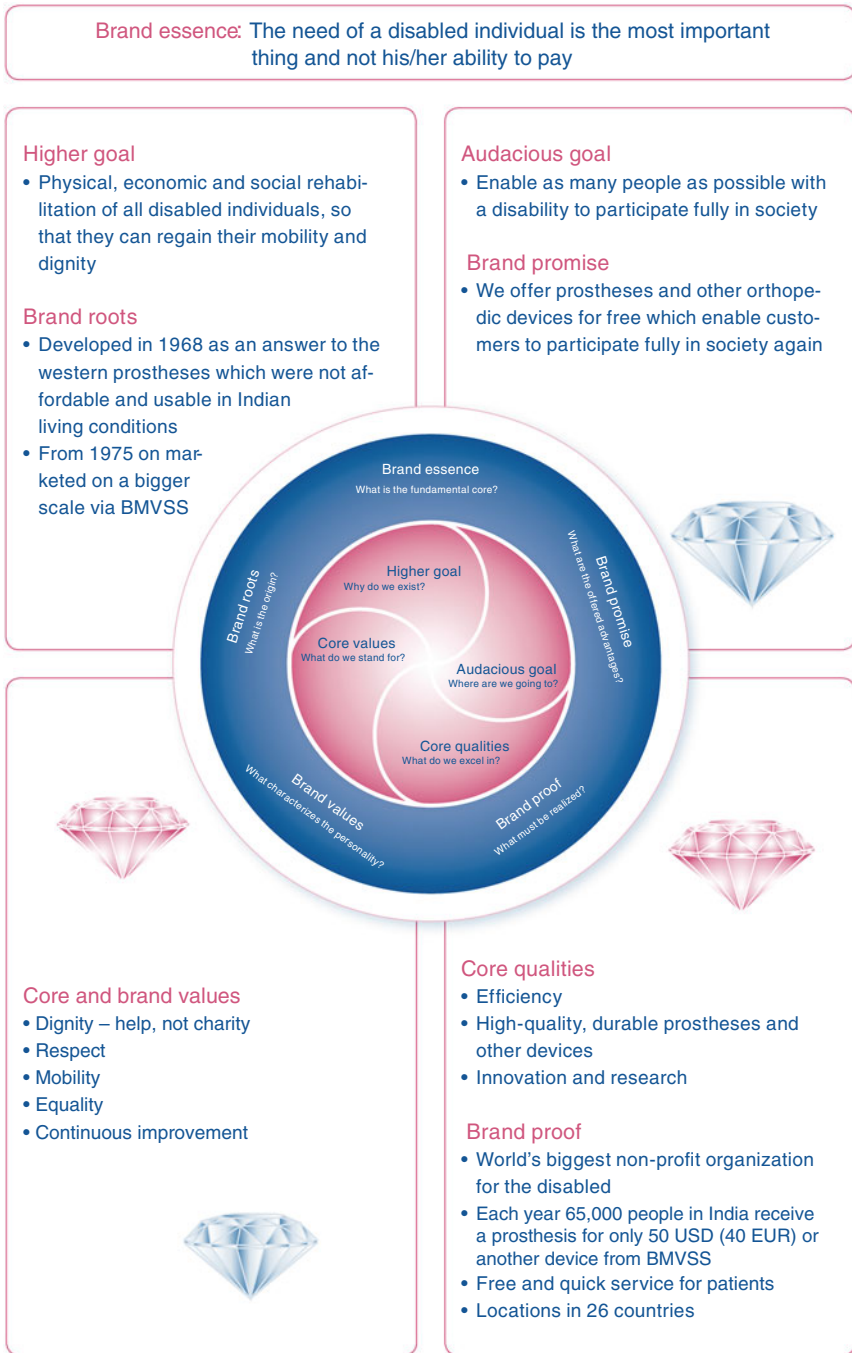


Figure 8.4.1 Vision and Positioning of Jaipur Foot

wheelchairs or another aid. BMVSS has an annual budget of USD 3.5 million (approximately EUR 2.6 million): 10 % is financed by its own revenues, 60 % comes from donors around the world and 30 % stems from government subsidies.

BMVSS has established mobile clinics in 26 countries where poverty is prevalent. Examples of such countries include the Philippines, Afghanistan, and Sudan—current or former war zones where many people are injured by landmines, for example. Doctors and technicians on location are responsible for measuring, producing, and delivering the prosthesis. “You’ll find the Jaipur Footprint in countries with the most difficult conditions. These are places where people need help the most,” notes Mr. Mehta.

BMVSS is completely dependent upon donations and subsidies. This is also the bottleneck that determines the total number of prostheses that are produced and delivered.⁴⁶ It is not possible for them to utilize the maximum capacity of the organization. “We have the capacity to produce 10,000 more prostheses annually, but this production is not maximized due to our dependence upon donations,” says Mr. Mehta.

8.4.2 The Business Model: Participating in Society Again

A technological masterpiece within everyone’s reach—that could well be an apt description of the Jaipur Foot. It is an organization that makes patients the focal point instead of letting them wade through reams of bureaucratic red tape. Everything is done to work as efficiently as possible to assist as many physically disabled individuals as possible. It is, after all, a product that literally changes people’s lives!

Market Segments: Everyone Who Requires a Prosthesis BMVSS is the world’s largest nonprofit organization for the benefit of physically disabled individuals. Its target group is broad: all physically disabled individuals worldwide who need a prosthesis or other orthopedic aid. Segmentation is not part of the equation; everyone in need of a prosthesis is helped. It does not matter who you are; BMVSS makes sure that you can walk and fully participate in society again. If the physically disabled individual cannot come to BMVSS, BMVSS will go to the patient by organizing an on-site treatment camp in remote areas of India. BMVSS focuses in particular on physically disabled individuals who under normal circumstances cannot afford a prosthesis. That sets BMVSS apart from other prosthetic manufacturers that focus on patients who can pay. SACH and Seattle Foot also offer prostheses, but these are considerably more expensive. Competition is not viewed as something negative given that these organizations also wish to assist as many people as possible. This philosophy is also reflected in the fact that BMVSS did not file a patent for the Jaipur Foot. The number of people that BMVSS is able to reach is limited in particular by practical limitations, such as the necessary funds to make and measure more

⁴⁶To understand the meaning and the role of a bottleneck, see for instance the standard work on this topic by Goldratt and Cox (1986).

prostheses. The focus lies on where the need is greatest and people can be helped the most. The patients helped in India are primarily people who have lost a limb through illnesses such as polio, wound infections and complications from chronic disorders like diabetes. Furthermore, BMVSS focuses globally in particular on rendering assistance in conflict zones, where large groups of people lose a limb due to landmines, for example.

Customer Value: I Can Walk and Participate in Society Again! Disabled individuals in India often lead a “second-class life.” If they cannot work, there is no safety net to catch them. After receiving a prosthesis, BMVSS customers can participate in society once again. Where at first they could no longer work due to the absence of a limb, a prosthesis now allows them to return to work and provide an income for themselves. This is vital, especially in developing countries where social security systems are largely absent. In that case, a prosthesis makes a world of difference and produces much joy and relief. BMVSS helps patients maintain their dignity. Customers do not have to pay, but the financial assistance provided is not emphasized. The process from the initial assessment to obtaining a prosthesis takes 1–3 days. A major difference with the Western world is that after patients have had their prosthesis measured, they only need to return one time after several weeks to have it tailored to their size and fit. Sometimes patients in the West have to visit a clinic a number of times before everything is fine. If this were to happen in India or other developing countries, it would create huge barriers given the long distances and the transport options that people have or do not have. In this way, BMVSS makes an enormous difference for people with a physical disability who otherwise would never receive the required prosthesis or aids due to their financial and social circumstances. Although putting on a prosthesis and seeing how it works continues to be a tense moment for most if not all amputees, the wealth of experience and huge numbers of people with a BMVSS prosthesis engenders considerable trust. In addition, if you are disabled in a country lacking a social safety net and can only benefit from this prosthesis, receiving one will give you hope for a future in which you can care for yourself once again.

Delivery: Care When and Where You Want It True marketing and sales relate primarily to finding and convincing donors. This often concerns major funds and governments that do receive an enormous benefit in exchange for their investments, because people will become productive in and for society again after they have been fitted with a prosthesis. Investments are achieved via networking for fundraising, which is supported by free publicity and seminars to spread the BMVSS story far and wide. Future donors are proactively invited to come and take a look behind the scenes of BMVSS. Demonstrating to donors the difference that Jaipur Foot makes in people’s lives elicits larger donations and greater involvement in the organization’s ambitions. The Jaipur Foot also sells itself. An example of this is the word-of-mouth advertising that occurs when someone has just received a prosthesis. People who walk around with a Jaipur Foot also provide a very visible and mobile means

of advertising. Organizations are inspired to set up a treatment camp in collaboration with BMVSS, such as in the case of ArcelorMittal in Liberia.⁴⁷

Patients are given attention and treated with empathy and care. They can seek assistance in the mobile or other clinics of BMVSS at any time on any given day. By setting up mobile clinics in addition to its regular clinics in more remote areas, BMVSS enables people below the poverty line to gain better access to a prosthesis.

They can be admitted 24 h per day. During treatment, patients along with any family members who have travelled with them may stay at BMVSS free of charge. An appointment is not necessary—in accordance with Indian culture. So if a new patient has to wait, that is all part of the process. The initial assessment is unique when compared with what normally happens in healthcare. Every patient at BMVSS is first observed and then registered (instead of vice versa). A permanent staff member is then assigned to the patient throughout his/her stay. Measuring a prosthesis takes 3 h on average. Within 1–3 days, patients can return home with a prosthesis or other orthopedic aid.

Operation: According to the Assembly Line Method Whereas a BMVSS prosthesis might be a fraction of the cost normally associated with prostheses in the West, the requirements for its effective use in some territories is not lower but rather higher. For instance, a solution had to be found to complete the process of measuring, producing and tailoring within 1–3 days, so that individuals need travel to and from the clinic for the actual treatment only once and be assisted quickly. That is why the production process is incredibly simple with standard procedures for receiving, registering and measuring patients, producing and adjusting the prosthesis, and discharging patients. Consequently, product requirements are more extreme in terms of durability, functionality and maintenance. And production is provided in an entirely different approach than in the West, where it is all about made-to-measure prostheses instead of mass production. In Western countries, prostheses are an exception that may certainly command a price. The development and further improvement of a prosthesis at BMVSS is therefore a typical example of innovation originating in drastic simplification, cost reduction and economies of scale which occur because it is the only way to solve the problem.⁴⁸

Each prosthesis is tailored by a specialized technician. The material costs for a prosthesis above the knee are on average USD 7.68 (EUR 5.65). The technology used is unique in the world. The Jaipur Foot is manufactured from HDPE plastic, which is flexible and light, but also strong. Furthermore, it is suitable for changing weather conditions. This is very important for use in countries like India. In many countries people walk around on bare feet or unprotected prostheses. Given the volumes, extreme requirements and social relevance, BMVSS is a challenging but attractive partner for Western companies that want to stay ahead. The lyrics “If I can make it there, I’ll make it anywhere” from Frank Sinatra’s signature song

⁴⁷ Pearson (2012).

⁴⁸ Christensen (1999, 2009).

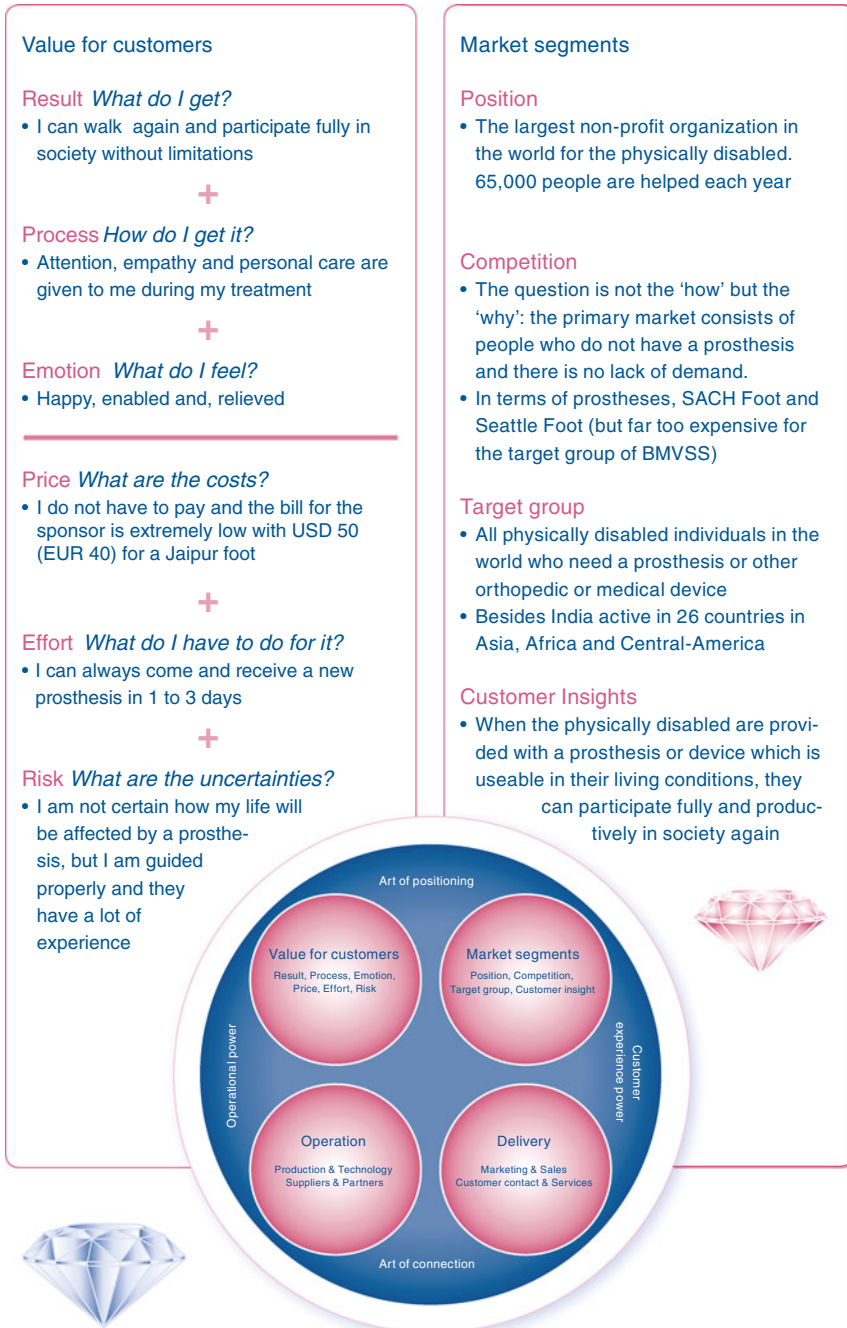


Figure 8.4.2 Value for customers and Market segments of Jaipur Foot

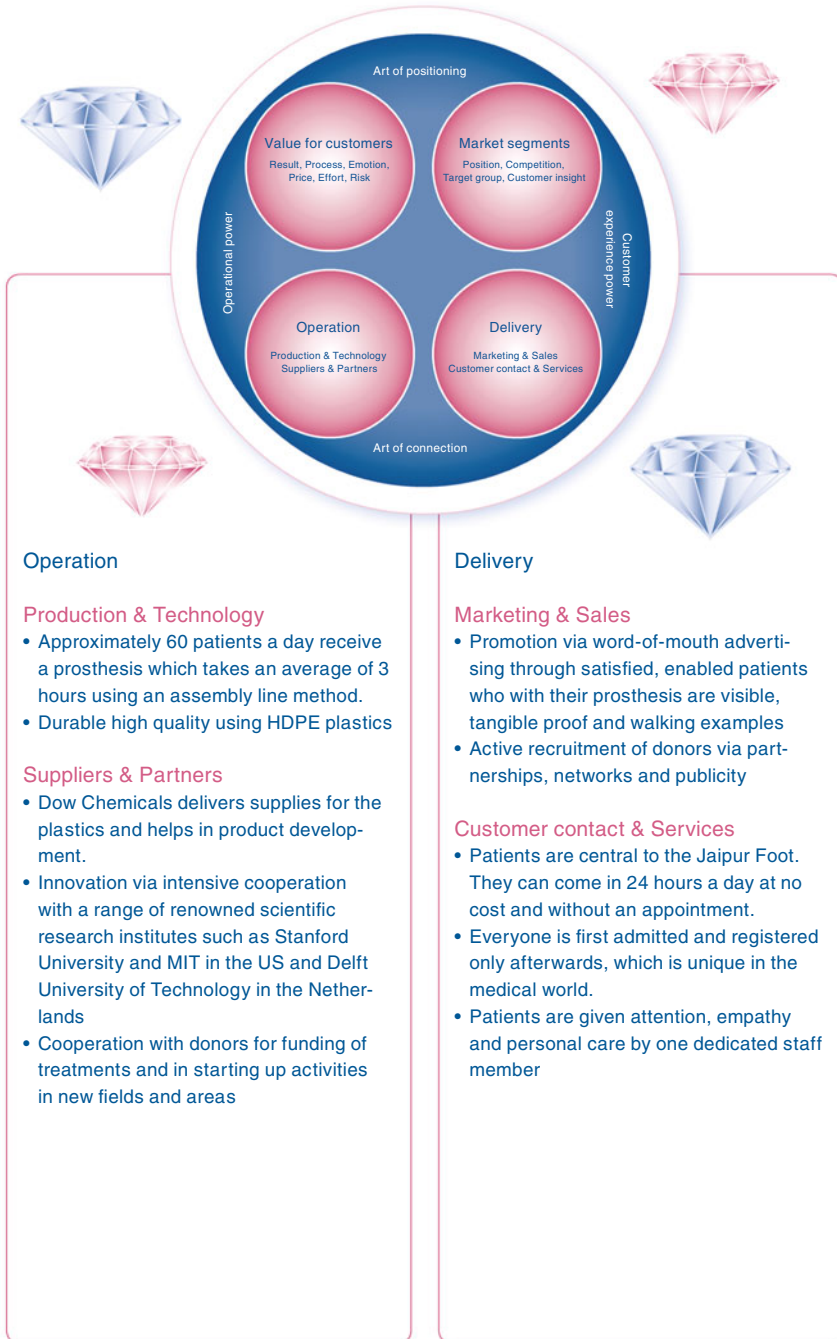


Figure 8.4.3 Operation and Delivery of Jaipur Foot

may refer to New York, but it is even more applicable to India with this type of product. BMVSS works intensively together with the supplier Dow Chemicals on plastics for product development. Wheelchairs that work well in the extreme conditions of India and are simultaneously affordable are procured by Whirlwind Wheelchairs.

Research and development are an important part of the BMVSS vision. Continuous improvement based on science ensures better quality and lower costs. In addition to its technologically advanced suppliers, BMVSS has established joint ventures with leading organizations in and beyond India. Examples of such organizations include Stanford University and MIT in America, the Indian Space Research Organization (ISRO) in India and Delft University of Technology in the Netherlands. By working together with leading universities, BMVSS is able to develop prostheses of outstanding quality. As a result, patients do not receive a third-class prosthesis, but rather an innovative, high-quality product. This is also evident from the fact that Time Magazine selected the Stanford-Jaipur Knee as one of the best innovations in 2009.⁴⁹

8.4.3 *Result: Participation in Society*

BMVSS has helped more than 1.3 million customers. Each year, the organization assists 65,000 people, 20,000 of whom receive a prosthesis and 45,000 another aid. The value that BMVSS provides for these customers is abundantly clear: the accessible, high-quality and free prostheses and other aids ensure that physically disabled individuals, who often live below the poverty line, are able once again to participate fully in society both socially and in terms of work. The impact that this has on society is the fuel on which employees, initiators, donors and society run.

BMVSS is a nongovernmental organization with its head office in Jaipur, India, and 26 clinics throughout the country. The Executive Committee consists of public figures, such as social workers, medical experts and financial experts. The founder, Mr. Mehta, is still the incumbent CEO. Due to its NGO status, BMVSS is completely dependent upon donations. In general, BMVSS enjoys a lot of awareness with donors in India itself and abroad. Thirty percent of its budget comes from the Indian government, 60 % from donors and 10 % from other sources such as contributions by customers themselves. BMVSS has an annual budget of USD 3.5 million (approximately EUR 2.6 million).⁵⁰

There is still more demand for prostheses than can be met with funds which are provided by the Indian government, philanthropic organizations and other donors.

⁴⁹ See: http://jaipurfoot.org/what_we_do/prosthesis/stanford_jaipur_knee.html at Jaipur Foot (2013).

⁵⁰ Kanani (2011).

The funds are invested for the purpose of producing as many prostheses as possible. As a nonprofit organization with the aim of helping as many disabled individuals as it can, BMVSS is focused on cost control.⁵¹ Costs are kept low in a variety of ways, including by working with locally sourced materials. Thanks to this approach, 43 % of BMVSS costs goes towards material, 31 % on labor, 12 % on mobile clinics, and 14 % on overhead. That means that 86 % of the costs of BMVSS are related to the production process.⁵² This makes BMVSS unique! For instance, Ossur, a producer in Iceland, only spends 48 % of funds on the production process.

The 200 employees of BMVSS are highly motivated. The production process is labor-intensive, and the technicians who work for BMVSS receive special training before they may begin. In addition, further specialization is encouraged. Everything is focused on helping the patient better and setting up the production process more efficiently. Aside from one permanent doctor who has been hired, local doctors donate their time on a part-time basis. The intrinsic motivation among employees is enormous, because they make a difference in the lives of patients. Technicians earn on average USD 100 dollars (EUR 80) per month—twice as much as the average wage in India, but far less than the salary they could make elsewhere.⁵³

India does not have any social security or medical benefits for its citizens, which means that they are completely dependent upon family members. Many people die of easily treatable diseases, simply because the money for treatment is not available.⁵⁴ The loss of a limb is disastrous for the lives of working people. If these people are furnished with a prosthesis, they can participate in society again and the labor participation rate increases. It makes someone who is an invalid able-bodied again. Consequently, delivering “free” prostheses has a very favorable impact on the Indian economy.

BMVSS has received various humanitarian and innovation awards. The Jaipur Foot is a high-quality prosthesis comparable with Western prostheses in terms of quality, but produced at a fraction of the cost thanks to operational excellence.

8.4.4 The Brilliant Lessons of Jaipur Foot

What can we learn from BMVSS’s example? And what lessons can we draw from this business model?

- BMVSS is a typical example of the type of breakthrough required to make a difference at the “bottom of the social pyramid”, where most people with the least amount of money are found.⁵⁵ This is the type that is only found if that is the only

⁵¹ Mack et al. (2003).

⁵² Idem.

⁵³ Idem.

⁵⁴ <https://www.solidairmetindia.nl/uploads/newsletter/128d816e04c4aa95345ba7c35564d08c0a506087.pdf>.

⁵⁵ Prahalad (2009).

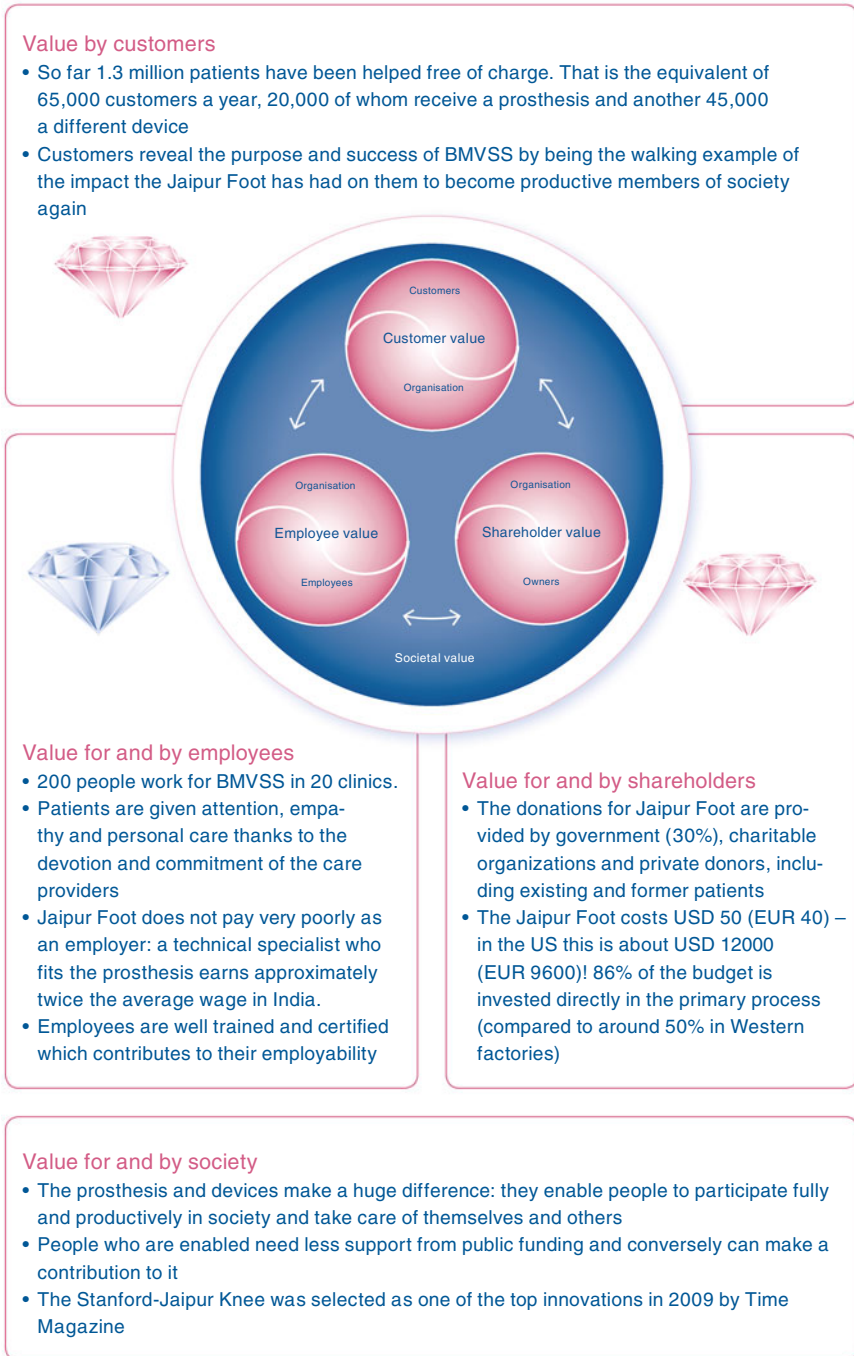


Figure 8.4.4 Value for and by stakeholders of Jaipur Foot

way to resolve a problem, simply because there are no more resources available. If necessity is the mother of invention, then innovation is a driving factor in the pathway to success.⁵⁶ The quality of the Jaipur Foot is comparable with that of Western prostheses and its patents are freely available. Since BMVSS gets the most out of challenging circumstances, its success could create competition for existing producers of prostheses in affluent countries. If you can make it in the type of conditions prevalent in India, then you make it anywhere in the world.

- By constantly innovating, BMVSS remains an inspiring partner that has to be regarded as a player in the global market. This attracts leading universities that are helping to strengthen the operations of BMVSS. In this way, BMVSS continues to improve its product—prostheses—in cooperation with these universities. In return, these educational institutions gladly attach their name to the mission of BMVSS.
- Operational excellence and cost leadership create the opportunity to produce prostheses at a fraction of the cost compared with those of other producers. An optimum process generates minimal waste, allowing almost all of the money to be spent on patients and more to be produced for less.

As set out above, capacity is not being maximized. The revenue model is not set up in such a way that it is able to entirely finance potential growth. BMVSS could research how it could optimize this aspect. One idea to that end is that patients pay according to their ability to do so. People who are missing a limb have no money, but a contribution could also be deferred based on their future ability to pay. If after the measurement of a prosthesis people become self-sufficient again, they could, for example, still pay for part or all of their prosthesis with the money they have earned after a year. A wonderful idea would be if someone with a new prosthesis donated money, so that two other persons as a present could receive a new prosthesis!

⁵⁶Christensen (1997, 2009).