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HEALTHINN

Spain, www.rehand.net

A start-up founded by a group of physiotherapists and software engineers created an app to help patients with impaired hand movements to recover more quickly. They worked with two large research hospitals to test their app and in the process gather the data necessary to convince potential customers to buy their product

Executive Summary

Healthinn's focus is on digital health and currently they offer an app for accelerating the rehabilitation process of patients who have problems related to hand movements. The technology can be beneficial for patients and help lower the cost of treatment for health insurance companies. The latter are in fact the target customers, although they are quite reticent to accept innovation and require a large amount of data before entering into a partnership. As part of a scientific collaboration programme, the company works with two of the largest public hospitals in southern Spain, testing its product with actual patients and collecting the necessary data for its potential customers. The commercialization is being carried out through pilot projects. Once the product is scalable, the company has the expectation that their participation in an acceleration programme will help it to access new markets.

CASE N°: SE58

SECTOR: INFORMATION TECHNOLOGY / HEALTH

TECH INTENSITY: LOW-MEDIUM TECH

LIFE CYCLE STAGE: START-UP

INNOVATION VECTORS: PRODUCT, CUSTOMERS/MARKETING

OI PARTNERS: PSR, LARGE CORPORATION, INDIVIDUAL EXPERTS, LEAD USERS/ CUSTOMERS, ACCELERATOR

KEYWORDS: Digital health, start-up, app, hand movement, B2B, insurance companies

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Healthinn

BACKGROUND

The company was founded in the summer of 2016. Its founders are physiotherapists working on clinical research. They had found there was a gap in the market which they were keen to fill by creating a new digital tool compatible with the new trends in digital health. They had established that patients with finger and hand movement problems do not follow their home rehabilitation exercises on a regular basis. The new app therefore gathers all the scientifically validated exercises and implements them with the use of a tablet, at the same time creating and offering more efficient evidence-based exercises. The ambition is to offer health professionals a tool through which they can monitor the development of these exercises.

The company is still in its start-up phase with no employees apart from the six founders who are actively involved. To date the company has been funded by the founders and has received a small grant from the government of Andalusia.

Currently, the company has developed an app that primarily addresses patients with problems related to hand movements, e.g. caused by osteoarthritis or surgery; however, the founders wish to branch out further to treat patients in other specializations, such as neurology, paediatrics and geriatrics.

The next goal of the company is to finish the creation of a haematological version of the application. In the next 2-3 years the founders plan to extend the team by employing engineers to develop different tools, not only the app, but other projects concerning devices and wearables. The company is about to sign a partnership with the largest research hospital in Andalusia which will provide it access to vital research equipment.

INNOVATION CHALLENGE & MARKET OPPORTUNITIES

The main motivation of the founders was to find extra funds to promote their research and develop further their ideas, since universities in Spain do not offer sufficient grants for clinical research. The founders found the idea of creating a start-up helpful for accelerating the rehabilitation process and making it easier for patients to do their exercises correctly. It was also the right vehicle for

monetizing this opportunity.

The founders were motivated in their ambition to create a company by their scientific knowledge of the field. Initially, the founders undertook market research on their own, looking for a similar product to theirs and they discovered that no similar product existed in the market. They then referred to external actors who had experience in the field to validate the results of their initial market research. The external actors, who helped in the second round of market research, were on the one hand researchers and academics, and on the other hand companies which operate in the medical field. The main outcome was feedback concerning the company's product.

OPEN INNOVATION TRAJECTORY

Concept development

The initial concept was thought up by the three founders who were physiotherapists; however, they did not have the technological knowledge to implement it. At the beginning, they tried to work with a software company which developed the beta version of the application. This partnership did not work, because the external company was not as committed to the project as the founders would have liked. In this initial partnership the engineers were developing the app and the founders were testing it and giving feedback in order to make improvements. The most frustrating aspect in this initial partnership was the lack of interest from the external partners.

At that point the three founders realized that they had to find engineers who would become part of the team and work closely on the development of the app. They finally found an engineering team consisting of three members who became co-founders of the company. These engineers had already had similar experience working on apps.

After the arrival of the new partners, the project development accelerated. The close interaction between the therapists and the engineers was very useful in the development of the product. The physiotherapists tested the application on real patients and the engineers made changes in line with the feedback obtained from their colleagues' clinical trials.

The development process, IPR and competition strategy

During the development phase two important features of the product changed: the business model and the technical specifications of the product. The main technical change concerned the digital code of the application after the new team of engineers joined the company.

At the beginning the company wanted to adopt B2B and B2C models but in the development process they abandoned the B2C model, since it was not efficient, and concentrated only on the B2B model. This change occurred as a result of the scientific validation of the company's trials. The company works with hospitals and insurance companies to promote its product. The main actors in the Spanish insurance market are the mutual insurance companies. These are public companies but they work as if in the private sector.

The product can offer two added values to its customers: the product has the ability to reduce the period necessary for the patient to recover from their injury/condition and the insurance companies can check whether the patient is doing their rehabilitation exercises and whether he/she is doing them properly.

The biggest problem working with these potential customers is the fact that the insurance companies are not so open to innovation. They prefer to adopt innovations which are related to reducing cost, but they are less open to introducing disruptive products, such as the app offered by Healthinn, since first they need to have all the necessary data that will convince them that investing in such a product is the right move. To overcome this obstacle, the company tries to convince them that its product is a good investment by providing scientific validation.

The company works in two of the largest public hospitals in southern Spain, testing its product with actual patients and the data from these clinical trials are provided to its potential customers. The doctors and the specialists in the public hospitals have been very helpful in developing the product, but the company faces a number of bureaucratic problems working with the public sector, since there are certain procurement rules which have to be respected.

During their collaboration with the scientific hospital staff, the company did not sign any agreements, but they did agree that they would publish jointly any results arising from their common research. In their dealings with public sector bureaucracy, two public companies have helped the company a lot. These organizations

assisted the knowledge transfer between the public and private sector. Overall, these two organizations have assisted the company in finding both qualified professionals as well as different kinds of help from regional, national and European authorities.

The company did not file any patents since the product is a software. However, they have protected their intellectual property via copyright. On another level, the company signed confidentiality agreements with the external actors who have worked on the development of the product.

The main competitive advantage of the company's product is that it reduces costs for its customers (i.e. the insurance companies), since it assists in reducing the time necessary to recover from an injury or similar by monitoring the patients' behaviour. In other words, by reducing the rehabilitation period and by monitoring the patients' behaviour, the product can reduce the costs associated with this kind of injury/ condition for insurance companies.

Commercialization and follow-up

The company started the commercialization phase by introducing several pilot projects. Currently, the company has launched three pilot projects with public hospitals, two with private geriatric care homes and one pilot project with a mutual insurance company.

The most challenging pilot projects are the ones that are taking place in the public hospitals because the public health system is more complicated to deal with. At the same time, the pilot projects taking place in collaboration with the public sector are the most useful. This is because the healthcare professionals working in the public system are more interested in improving the rehabilitation process for their patients. The problem with the private companies is that they focus too much on results and they do not let their employees spend their working time on trials.

Healthinn's product is very scalable since it is an application for tablets and it can be launched around the world. The company has succeeded in joining the accelerator programme of a co-working space for start-ups in Lisbon that specializes in health. This programme has numerous partnerships with public and private insurance companies and the company is looking for the opportunity to work with them for improving and promoting its product outside Spain.

The company will focus more on working with the mutual insurance companies for commercializing

its product since the product fits their need to reduce recovery time through monitoring the patient. The main challenge in working with the mutual insurance companies is the amount of data that they require before entering into a collaboration.

The organizational changes foreseen by the company are the following: 1) the need to find an investor who would support the company's plans and help them find a commercial partner; 2) the future necessity to acquire marketing and business development experts.

Healthinn has received substantial assistance from Telefonica Spain concerning their marketing and business development strategy, a partnership which has proved very useful for the overall development of the company.

BUSINESS IMPACT

The company has learned to concentrate on one thing at a time. It now makes a point of focusing on a specific project and does not try to develop different projects simultaneously.

The project has not yet had any impact on the business bottom-line since the company has been involved only in pilot projects till now and has not yet reached the sales stage.

LESSONS LEARNED

Healthinn is a start-up that has been trying to access a very closed market for innovation, i.e. health insurance companies. From its knowledge base, the company established partnerships which helped with the market validation of their product. This led to a change in business model, which is now focused on B2B relations. By joining an acceleration programme the company expects to gain access to new markets through the accelerator's network. By testing the product with large hospitals and thereby undertaking their scientific validation, the company has been able to gather the necessary data to improve its chances of selling its app to health insurance companies.

Lessons learned:

1. The importance of finding the right timing,

the right partner and the right way to manage the partnership, even in the early stages of development, is vital. The company succeeded in developing the product only after they brought in three engineers as co-founders. This was a direct consequence of the attitude of the first external partner who did not have the same level of interest in the project.

2. A combination of market and scientific partnerships can be very beneficial for a start-up. External advice can contribute to validating market needs, particularly when the company is knowledge-intensive, but with little experience of the market itself. Scientific partnerships with large hospitals provided the testing and validation of the product as well the data required to be provided to potential customers (health insurance companies).
3. Specialized accelerators can help start-ups in accessing markets and can introduce the company to a broader, but still sector-related, network.