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Investment in Hybrid Organizations in Healthcare

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i. Abstract

Title: Investment in Hybrid Organizations in Healthcare

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Innovation in health is a pressing need throughout the world, whether to solve public health challenges, to assure the sustainability of national health services or even improve the population's quality of life.

Investors have been showing a growing interest in projects with social character; furthermore, there has been a growing emergence of hybrid organizations that combine social and financial goals. Due to the social impact closely associated with innovation in health, many projects in this industry are considered hybrid organizations. Therefore, there is a window of opportunity for investment that organizations in the healthcare industry should use in their advantage. It is crucial, however, that these organizations learn how to effectively capture investment.

Through an exploratory study, this dissertation aims to understand what are the main factors that hybrid organizations in the healthcare industry must focus in order to capture investment. Using a qualitative approach, 15 specialists in this industry were interviewed: founders/ CEOs of the companies, investors and accelerators.

By analyzing the interviews, and considering the specificities of the health industry, six factors were identified: Innovation, Market Drive, Team, Stakeholder Validation, and Intellectual Property. Still companies must not focus on one factor only, since, excelling at just one of them may be insufficient to capture investment. Entrepreneurs must deliver a compelling combination of these six factors in order maximize their chances of attracting the necessary capital.

Keywords: Hybrid Organizations, Impact Investment, Healthcare, Investment in Health

i. Sumário

Seja para resolver problemas de saúde pública, de sustentabilidade dos serviços nacionais de saúde ou para melhorar a qualidade de vida das populações, a inovação em saúde é uma necessidade premente por todo o mundo.

Atualmente tem-se registado um crescente interesse dos investidores em projetos com carácter social, verificando-se o surgimento de organizações híbridas que combinam objetivos sociais e financeiros. O impacto social inerente à inovação na área de saúde leva a que seja possível considerar muitas das empresas neste mercado como organizações híbridas. Existe então uma janela de oportunidade que estas organizações podem aproveitar, no entanto é essencial que estas tenham consciência de como conseguem satisfazer as suas necessidades de financiamento.

Assim sendo, esta dissertação tem como objetivo, através de um estudo exploratório, perceber quais os fatores nos quais as organizações híbridas se devem focar para captarem o financiamento necessário. Para este fim foi utilizada uma abordagem qualitativa, tendo sido entrevistados 15 especialistas na indústria: fundadores/ diretores de empresas, investidores e aceleradores.

Através das entrevistas foi possível identificar seis fatores que, tendo em conta as especificidades da indústria da saúde, aumentam a atratividade dos projetos aos olhos de investidores: Inovação, Foco no Mercado, Equipa, Validação de *Stakeholders*, Propriedade Intelectual, Impacto Social. No entanto um empreendedor não se deve focar em primar apenas num fator, pois isso poderá não ser suficiente para captar o financiamento necessário. Os projetos devem oferecer uma combinação dos seis fatores de maneira a aumentarem as suas hipóteses de atrair o capital necessário.

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1. Introduction

1.1. Problem Definition and Relevance

In Europe, health and social care systems are facing increasing demands at a time when resources are increasingly constrained (Davies & Boelman, 2016). In the United States, the Affordable Care Act and the American Health Care Act are currently on the brink of the news due to the increasing concerns of the American people about their national health service. In Africa, public health challenges such as malaria, tuberculosis or HIV are still responsible for huge numbers of deaths and reduced living standards of the population (Friends of the Global Fight, 2017). This way, all around the globe, we see that there is a strong case for investment in social innovations that tackle such challenges.

Focusing on the health sector and bearing in mind that fundraising, when dependent of donations, is often challenging due to many different reasons – whether it is the growing competition for the same resources, donor fatigue and/ or limited funding as government and philanthropic contributions stagnate or decline (Durakovic *et al.*, 2017) –, it is crucial for projects in this industry to understand all the financing options on their disposal. At the same time, impact investing is experiencing rapid growth in the past years – in 2011 alone, roughly 60 new impact investment funds were established, compared with 44 in 2010 and 20 in 2009 (Höchstädter & Scheck, 2015) – with investors looking for new projects to invest (Durakovic *et al.*, 2017).

These two simultaneous phenomena – health issues as one of the major concerns of this era and the rapid growth of impact investing – represent an opportunity for all actors in the sector. Whether they are investors, who may find new profitable projects; health industry enterprises, who are able to attract new forms of investment that allow them to scale and reach new markets; or the users, that benefit from better and efficient products and treatments that may, ultimately, save their lives.

In the healthcare industry we find a match in the definition of new ventures and hybrid organizations. Hybrid organizations are enterprises steered by different institutional logics (Pache & Santos, 2013). This way, and due to the impact inherently generated by the industry's start-ups and the innovation they produce, it is reasonable to consider that most of the new ventures in the industry fit the description of hybrid organizations and that the most of the investment in the industry is an impactful one.

Innovation in health is not only an outcome of development but also a prerequisite for it. Consequently, the investment on innovation yields one of the highest rates of return that a country can achieve either by improving quality of products and services or by constraining costs (Salge, 2011). Healthcare innovation is, this way, so intricately associated with social responsibility, as imposed by bioethics entities, such as the International Bioethics Committees, that one start-up in the field will naturally tend to solve social problems whilst seeking financial return (UNESCO, 2010).

Recognizing what are the main factors that drive investments in the health industry is crucial for the future behaviour of organizations in the market, and may help guide the behaviour of, not only the enterprises, but also the investors. Therefore this study will focus on what are the main factors that allow ventures in the health industry to become attractive opportunities for investors, being this way able of delivering disruptive innovation in the sector.

1.2. Objective and Research Questions

Historically, most healthcare related start-ups did not explore the financing option from private for-profit sources, and instead turned to philanthropies and donations (Grazier & Metzler, 2006). However, this channel ability to meet the investment demand decreased with more competition for donations and new ventures had to approach the financing market differently. Therefore, nowadays, one of the major challenges start-ups in health face is exactly how to finance their operations, and a poor approach to this subject may lead to discouragement, ineffectiveness and ultimately hindering the growing prospects of the venture (Grazier & Metzler, 2006).

Being that one of the major problems for the healthcare ventures to grow and for innovation to prosper, organizations must be clear providing the incentives that encourage investment on their enterprise (Law, 2000). Also, given the recent unstable financial markets and increased competition for private donations, new healthcare project often face unrealistic and unfavourable requirements for investment returns and time-to-market (Grazier & Metzler, 2006).

Thus, we propose to clarify this subjects presenting which are the main factors that hybrid organizations must focus in order to attract investment. We will present it after observing the healthcare investment environment and its main obstacles, particularly in the Portuguese market.

Therefore, the following research question is addressed:

How do hybrid organizations on healthcare attract investment?

The answer will be provided, using a qualitative approach, by experts in the field, interviewing founders and/ or managers of hybrid organizations, impact investors with past investments in the sector and accelerators specialized in the industry. Focusing on the experience of these firms and projects, the aim is to add valuable insights related to the investment in hybrid organizations, creating understanding that can be verified in future researches (Gebhardt *et al* , 2006).

1.3. Dissertation Structure

This dissertation is divided in 7 chapters that are intended to provide the factors described above. The chapters are: Introduction; Literature Review; Context; Research Methodology; Data Analysis; Findings; Conclusion, Contributions, Limitations and Future Research.

The first chapter, in which this topic Dissertation Structure is inserted, discusses the relevance of the presented subject, the objective and research question. This chapter provides as well a brief description of what will be the methodology used to answer such question. The second chapter provides a summary of what has already been study in the area and provides descriptions of crucial concepts that will be essential to address the research question. The third chapter introduces the Portuguese health care market and its recent developments. In the fourth chapter and fifth the adopted methodology and data analysis, respectively, are described, in line with the objectives and particularities of the dissertation. The sixth chapter reveals the obtained findings and summarizes them dividing it in distinct categories. Lastly, the seventh chapter has the main conclusion of the study and addresses the academic and practical contributions and limitations, closing with the proposal of relevant future research to be fulfilled in the subject.

2. Literature Review

2.1. Hybrid Organizations

During most of the past century, the private, public and non-profit sectors were clearly separate identities in which distinctive standard types of organizations, such as commercial businesses, public organizations and private charities, respectively, fell categorically (Battilana & Lee, 2014). Nonetheless, researchers assumed that these organizational forms were more rigid than they turned out to be (Markman *et al.*, 2016) and, over the last three decades, the borders that separated these forms and their sectors have progressively dissipated (Battilana & Lee, 2014). The increase in the number of organizations that operate at the intersection between boundaries has been notable all over the world – in the U.S, for example, as Haight *et al.*(2015, p. 5) explains:

“With the market for socially and environmentally conscious products and services growing to \$290 billion and the market for socially responsible investments growing to \$3 trillion in assets in the U.S. alone (or 12% of professionally managed funds), there has naturally been a complementary growth in the popularity of organizations that seek to meet this market opportunity that we call “hybrid organizations”.”

Such enterprises, named “hybrid organizations”, congregate different institutional logics (Battilana & Dorado, 2010). As Battilana and Lee (2014, p.400) state:

“The concept of “hybridity”, in the abstract, refers to the state of being composed through the mixture of disparate parts. Specifically, hybridity describes direct constitution from existing elements. Hybrids are not objects composed entirely new, but are rather inter alia objects, composed through the recombination of existing elements.”

Organizationally speaking, hybridization refers to combining parts of different institutions, fusing elements, stakeholders, value systems and operational logics, missions and agendas that in the past were considered to be restricted to one specific sector or organizational form (Markman *et al.*, 2016).

These organizations may congregate, for example, market and academic rationales, with the intention of advancing the medical discovery in biotechnology firms. They can combine logics of government, commercial firms, and non-profit associations in public-private hybrid organizations to tackle the

challenge of climate change. Or even, logics of commercial and non-profit enterprises united to tackle the underdevelopment issues through microfinance organization (Jay, 2013).

As organizations face the growing existence of multiple institutional spheres, known as institutional pluralism, hybrids are increasingly sought as a solution to tackle different institutional logics. Hybrid organizations, as members of more than one institutional sphere, are able to effectively respond to the particularities of pluralistic environments, incorporating elements of various logics and behaving appropriately before a wider set of institutional referents (Pache & Santos, 2013).

One studied example of a hybrid organization is the Aravind Eye Hospital, a cataract-surgery organization based in Madurai, India. Aravind approaches a major cause of concern in the Indian healthcare scenario – unnecessary blindness – embracing social responsibilities, through a tier pricing method: wealthier patients pay close to market rates, knowingly subsidizing cataract-surgeries for poorer patients who get treated for free or minimal price. Through this model, Aravind is simultaneously market and mission oriented thus is able to reach its social goal whilst being financially sustainable. This is a model that literature on Corporate Social Responsibility and non-profit management fails to explain since enterprises such as this one, which combines both business and charity, are still emerging (Battilana & Lee, 2014).

It is clear, by now, that hybrid organizations are in constant conflict. They are stuck between contradictory claims due to the various logics that they gather. Thus, some questions are constantly raised, as Pache and Santos (2013, p. 972) state:

“Should they incorporate as for-profit or as not-for-profit entities? Should they distribute profit to their owners or reinvest it in their social mission? Should they mobilize paid professionals prioritizing efficiency concerns or volunteers favouring a deep commitment to the mission? Hybrids need to find ways to deal with the multiple demands to which they are exposed.”

However, besides their constant conflicts, studies suggest that hybrid companies, by incorporating environmental and social responsibilities in their value proposition, are able to capture superior workers for the same wage (or equivalent workers with a lower wage), state higher prices and enjoy higher levels of customer loyalty by matching the products and brands they sell with the ideas and

principles of their clients and employees (Markman *et al.*, 2016). Furthermore, by being present in multiple fields, and combining different logics within a single organization, research also proposes that hybrid have a higher likelihood of innovating and leading to the creation of new practices and/or institutions (Jay, 2013).

As Jay (2013, p. 138) inquires:

“What are the organizational consequences of participating in multiple fields, or of combining multiple logics under one organizational roof?”

Considering the scenario exposed thus far, it is easy to understand that hybrid organizing give rise to both pros and cons. But in what does the combination of all the previous effects result in?

One important aspect to study is the financially attractiveness of hybrid organizations. Questions, such as: Are hybrid organizations as financially attractive as for-profit businesses? How do they attract investment? typically arise in this context. Thus, in order to better understand the answers to such questions it is crucial to study the different features of *“an investment approach that intentionally seeks to create both financial return and positive social or environmental impact that is actively measured”* (World Economic Forum Investors Industries & Deloitte Touche Tohmatsu, 2013, p.7) namely: Impact Investment

2.2. Investment on Hybrid Organizations – Impact Investment

A new type of investment is arising globally, one that targets, directly the creation of value (social, economic, cultural and/or environmental) in the society as well as financial return on investment. This endeavour is usually called *“impact investment”* (Ormiston *et al.*, 2015).

The term *“impact investment”* may be new, but the concept of combining investment and social objectives is not. The Commonwealth Development Corporation in the United Kingdom, founded in 1948, stands as an example for how long this concept has been around since they are able to sustain their operations from earned income (O’Donohoe *et al.*, 2010), although they *“invest to support the building of businesses throughout Africa and South Asia, to create jobs and make a lasting difference to people’s lives in some of the world’s poorest place”* (CDC Group, 2013). In recent years, however, the attempt to build an impact investing market has increased (Höchstädter & Scheck, 2015).

Impact investing was first introduced in 2007, by the Rockefeller Foundation, following an initiative that brought together numerous finance, philanthropy and development leaders. Conjointly, they debated the need for and means to build an industry that focused on investments with a positive social and environmental impact. Impact investment, just as traditional investment, involves capture funds in order to obtain financial returns. However, as hinted above, financial return is not its only purpose; impact investment also focuses on a social and/or environmental return, combining financial and philanthropic objectives (Höchstädter & Scheck, 2015). Actually this type of investment is differentiated from traditional financial investment due to its focus on a non-financial return yet, on the other hand, it also separates itself from grant funding and philanthropy precisely due to the financial return it aims to bring to investors (Höchstädter & Scheck, 2015).

Impact investment can take many different forms, either by equity, debt or a mix of both with flexible demand levels of financial return – either at a market rate or below/above market. These varying levels of return reflect not only the individual risk seeking but also the motivations for each player to enter the market. Some organizations such as institutional investors, philanthropists, foundations and charities have already implemented some impact investment strategies – some of them are looking for financial returns whilst others deliberately accept reduced financial returns in order to pursue a greater social and/or environmental impact. In order to fully understand impact investment we must note that, by pursuing a blended value creation between social impact and financial returns, we are challenging the long established dichotomy that proclaims an inverse relationship between these two factors (Ormiston *et al.*, 2015).

As previously stated, new impact investment funds have been emerging at an unprecedented rate. The market of impact investment is outstandingly fast and is creating a favourable environment for attracting investment, as Höchstädter & Scheck (2015, p. 450) note:

“A number of mainstream financial players have been entering the field, launching funds (e.g., Deutsche Bank’s Impact Investment Fund I), engaging as investors (e.g., Goldman Sachs is invested in the Rikers Island Social Impact Bond), or researching the market (especially J.P. Morgan with its Social Finance Research division). An ecosystem has been developing, including investor networks such as the GIIN, reporting standards such as the Impact Reporting and Investment Standards (IRIS), rating agencies such as the Global Impact Investing Ratings System (GIIRS), and searchable online databases of investment products such as ImpactBase.”

Moreover, top-ranked universities, such as Columbia University, are introducing impact investment into the academic field by launching impact investment initiatives and including the topic in their syllabuses, as well as dedicating an increasing number of reports, articles, and so forth, to impact investment. The subject has also caught the attention of the public sector, having, for instance, the government of United Kingdom lead the way and others around the world followed the trend (Höchstädter & Scheck, 2015).

Impact investment's most important players have been individuals, foundations and family offices which, along with global development banks, have led impact investment, however, in current years, institutional investors are becoming increasingly attentive to this market. The demand for impact investment occurs both in developed and developing countries, in projects regarding for-profit, not-for-profit, and hybrid organizations, with varied social and environmental impacts. It is hard to have a precise notion of the size of the global market for impact investment, as information on transactions is not usually made publicly, and it is still hard to be fully sure of which projects and investments belong to the impact investment sector and which do not (Ormiston *et al.*, 2015). The estimates vary greatly and it is not consensual what the present industry value is today, as we can see through Orminston *et al.* (2015, p. 355):

“Estimates of the current market size vary significantly between commentators: (1) The Global Sustainable Investment Review (2013) reports US\$89 billion in impact investment representing 0.14 per cent of total managed assets of professionally managed funds actively applying ESG strategies. (2) J.P. Morgan and the GIIN's (2013) third annual survey on the impact investment market reports that the 99 organizations that participated in the survey committed US\$8 billion to impact investment in 2012, and plan to commit US\$9 billion in 2013. Survey respondents reported cumulative allocations of US\$36 billion since inception to impact investment. (3) The Impact Investor, which maps 380 different impact investment funds, reports that that total volume of capital managed by these funds in 2012 exceeds US\$40 billion.”

Other authors even suggest that impact investment is expected to reach one trillion dollars of invested capital by the year 2020 (Battilana & Lee, 2014). This growth of impact investing is in line what Dacin (2011, p. 1204) states:

“A broader movement gaining momentum in contemporary market economies, one demanding a more ethical and socially inclusive capitalism.”

This movement is evidenced, for example, by the emergence and expansion of an increasingly ethical consumerism, and the growth of business ethics and corporate social responsibility movements. The parallel increased emergence of hybrid organizations helps proving the minimization of barriers between the social/environmental and economic/financial domains and also between for-profit and non-profit sectors. This contributes to the increased attention brought to the phenomenon by policymakers and academia (Höchstädter & Scheck, 2015).

Over the past decade many different players have emerged all over the world – from new investors to focused funding intermediaries and policy makers in impact investment. The market changed and evolved from the “incoordination innovation” state to a structured market where various centres of activity and recent infrastructures contribute to increased activity and reduced transaction costs (Ormiston *et al.*, 2015).

Nowadays, impact investment represents a powerful opportunity for social entrepreneurs, since it focuses on providing the necessary funding for social innovation that addresses significant social/environmental problems. Such problems are usually complex, messy and interdependent and call for all-round solutions. Hence impact investment emerges as another means, besides traditional philanthropy and government funds, for these projects to effectively respond to such issues (Ormiston *et al.*, 2015). As we have seen, impact investment is creating the financial structure for funding hybrid projects. Similarly for-profit entrepreneurs who have debt, equity, or a combination of both in order to fund their projects, hybrid organizations are now too faced with this reality in the wake of impact investment; they now have an option besides recurring to foundations’ and venture philanthropists funds, but how do hybrid organizations, specifically healthcare start-ups, are able to attract such investments?

2.3. Investment on Healthcare Innovation

Thinking about start-ups – defined broadly as newly registered firms, with at least one employee (often the founder) (Isenberg, 2016), or as a temporary organization designed to search for a repeatable and scalable business model (Blank, 2013) – is to think about innovation and disruption. In the healthcare industry, innovation is defined by Omachonu (2010, p.5) as:

“The introduction of a new concept, idea, service, process, or product aimed at improving treatment, diagnosis, education, outreach, prevention and research, and with the long term goals of improving quality, safety, outcomes, efficiency and costs.”

This innovation has been responsible for huge increases in the world’s population wellbeing but, in times where the western societies healthcare systems are becoming increasingly costly (Davies & Boelman, 2016), and less developed countries public health challenges such as malaria, tuberculosis or HIV are still responsible for huge numbers of deaths and reduced living standards of the population (Friends of the Global Fight, 2017), there is still an enormous necessity and a strong case for investment in social innovations that respond to the challenges faced.

However, although this necessity is well identified and of public interest, the government and public authorities have failed to become the innovators in this subject, being now clear that the disruptive innovation follows a bottom-up path, kicking off from specialized researchers or front-line health experts as the innovators (Chowdhury, 2012). Such players present, that way, an entrepreneurial mindset proving their ability to create new projects from new concepts, ideas and visions, and present themselves and their ventures as the main responsible for the changes of the health care industry (Grazier & Metzler, 2006).

Though, to finance innovation, it is key to focus on financing the new ventures and start-ups in the industry, and this way improving the quality of care, accessibility, and continuity of services offered to the population (Grazier & Metzler, 2006).

Interestingly such ventures have chronically had on private investors, such as venture capitalists for example, an important financier. Even in times when the attractiveness, for public entities, of healthcare ventures investments reduced, the private capitals kept entering maintaining their levels stable (Lee & Dibner, 2005).

So, with one of the biggest challenge for start-ups being financing, that quest for investment easily becomes discouraging and ineffective (Grazier & Metzler, 2006). Considering the enormous relevance that investments has enabling the research and product development, which are on the basis of innovation, it is essential to understand which factors capacitate such organizations to attract investment.

3. Context

The context in which the research was developed is the Portuguese healthcare ecosystem.

Portugal is a country with a total population, in 2015, of approximately ten million people (INE, 2017), where all residents have access to the national health care system (World Health Organization, 2017). Regarding the health of its residents, Portugal is among the top 22 best countries in the world, positioning this way among the most developed countries globally (Lim *et al.*, 2016).

However, despite the good performance of the Portuguese population's health, research and innovation on health is for Portugal a fundamental sector in an area where the country wants to become a major international player. Thus, innovation in health is constantly a topic of attention from public institutions, for example in 2014 it was specifically discussed in the Portuguese Parliament under the name of: "Think Tank – Inovar na saúde – Promover e Disponibilizar a Inovação aos Cidadãos" (Assembleia da República, 2014).

Considered to be a strategic sector for the Portuguese economy, the industry covers, according to the most recent data, 1.114 firms and close to 11.000 workers, with exports in the sector have growing over 6,7% between 2011-2015 (AICEP, 2016).

The quality of health care provided to citizens and the high level of research and science performed in universities and institutes makes it a reference sector in the country. However, the capitalization of this critical knowledge generated has not been done successfully so far, providing this way an opportunity for growth and for an innovative and profitable ecosystem to develop (Health Cluster Portugal, 2009).

4. Research Methodology

Bearing in mind that we are dealing with recent topics (Battilana & Dorado, 2010; Battilana & Lee, 2014; Battilana *et al*, 2015) that require further research, a qualitative methodology was adopted (Creswell, 2013) in order to understand what are the main factors that hybrid organizations, specifically in the health and social care industry, must address to attract investment. This exploratory study focuses on what are the main topics that must be understood according to the experience of individuals that are familiar with capital investments in hybrid organizations of the health sector. Qualitative research is defined by Corbin and Strauss (1990, p.17) such as:

“By the term “qualitative research” we mean any type of research that produces finding not arrived at by statistical procedures or other means of quantification.”

More specifically, the data collection technique chosen is a series of in-depth interviews with relevant players in hybrid organizations of the health and social care industry. The interviewees are specialists in the field – they are founders and/or managers of hybrid organizations, impact investors with past investment in the sector and accelerators specialized in the industry.

Considering the dimension of this study, the in-depth interviews followed a semi-structured protocol, which is suitable for small-scale research studies (Boyce & Neale, 2006). The semi-structured technique consists in identifying the main aspects to be covered, by delineating the general layout of the interview, hence avoiding narrow focus on specific topics. This is an extremely flexible format which allows the interviewer to direct the interview towards his points of interest, yet allowing the interviewee freedom to express his thoughts. The detailed structure is, therefore, left to be worked out during the interview. This method, which is suitable for studies involving small samples, proved to be the most appropriate for this research, since 15 interviews were performed (Drever, 1995)

4.1 Interview Protocols

Three different interview protocols were created: one for founders and managers of hybrid organizations, another for investors and, lastly, a third one for consultants who deal directly with such organizations. These protocols were used as guiding lines but were adapted and improved as the interviewing process got along, in an ongoing and continuous process of feedback from previous interviews. As it would be expected, due to the singularities of each interviewee, the interviews differ

slightly from each other; however, the collection of information regarding the same topics was assured. The structure of the interview is explained in the tables of the appendix. The main points to be covered in the interview were the following:

1. Identify the interviewee and the organization – foundation and history of the enterprise, position of the interviewee;
2. Understand the project – core business, mission, beneficiaries and clients;
3. Check details of past external investments – stage of the project, amount; understand the experience of the interviewee;
4. Direct question on the personal opinion of the interviewee;
5. Facts about the company and the interviewee.

4.2 Interviews Performed

The table below describes the interviews performed. The names of the organizations were replaced by a code as agreed with the interviewees to preserve their confidentiality.

Table 4.2.1 Interviews Performed

Code	Country	Founding Year	Number of workers	Objective
Projects				
A	POR	2015	Thirteen (13)	Solution for prosthetics adaption
B	POR	2015	Ten (10)	Quick and convenient medical care in all locations and at all times
C	POR	2015	Five (5)	Tests that work as tools in the diagnosis of cancer
D	POR	2017	Three (3)	Low-cost, user-friendly, portable tuberculosis diagnosis device
E	POR	2016	Four (4)	Antibacterial coating for catheters
F	SPA	2017	Four (4)	Real-time monitoring of metastatic cancer progression based on a low invasive sampling
G	POR	2014	Three (3)	Reconstructive surgery monitoring technology
H	POR	2016	Six (6)	App for cancer prevention
I	POR	2017	Five (5)	Complementary test for the diagnosis and prognosis of depression
J	POR	2012	Five (5)	Biomaterial for preventive filling of bone infections
K	POR	2011	Five (5)	Promote healthy eating habits and lifestyles, contributing to the fight against childhood obesity.
Accelerators				
L	IRL	2011	Seven (7)	Shorten the time to market and to investment for MedTech companies
M	POR	2013	Five (5)	Support companies to generate more jobs by taking advantage of the critical knowledge produced in the city
Investors				
N	POR	2015	Three (3)	Invest and have an active part in the management of seed and early-stage projects in the area of Health Sciences
O	POR	2013	Thirty (30)	Invest in pre-series A of highly innovative and disruptive technologies in therapeutics diagnostics, MedTech and digital health with operations in Portugal.

The interviewees were divided in three different types of actors: projects – companies to whom the funds are destined –, investors – those who decide how and where to allocate the funds – and accelerators, defined by Radojevich-Kelley & Hoffman (2012, p. 57) as:

“Groups of experienced business people who provide services, office space, guidance, mentorship, networking, management services, knowledge, and expertise to nascent firms on an as-needed basis to help them succeed in the early stages of venture life.”

Through the contribution of these three stakeholders, the aim is to have a further understanding of the investment process and environment, questioning the two parts that are directly involved – the investors and the companies to whom the investments are directed – about their experience, and also a third party – the accelerators – with a more equidistant point of view.

Part of the interviews were performed at the offices of the companies. The organizations were contacted through cold e-mails or phone calls, which included a brief description of the aim of the research and the interest it had for the players in the industry. The contacts of the interviewees were obtained through a snowball sampling technique, in which each individual provides the researcher the contact of another one, who, in turn, contributes with a third, and so on (Atkinson & Flint, 2001). Considering the difficulty to obtain answers without being referred by someone of trust of the respondent, this “informal” method was considered to be ideal to reach the key players in the industry.

As a result, the opportunity to attend the Worldwide Accelerator Rally at Oporto (WARP) arose, where part of the interviews were carried out. The event took place on the 11th December 2017 and is described as follows (WARP, 2017):

“WARP aims to ignite a cooperative movement between biomedical and health related innovation accelerators at international level, facilitating exchange of good practices and collaboration, and optimise the use of resources among accelerators. The program will focus on specific obstacles in innovation and entrepreneurship in the biomedical/health sector.

The event will provide the opportunity to exhibit the technologies embedded in accelerators and to hold one-to-one meetings with potential investors and licensors.”

At WARP, one-on-one meetings with investors, accelerators and CEOs or Executive Directors of different companies facilitated the interviewing process, allowing the collection of detailed information.

5. Data analysis

The data analysis followed a Grounded Theory methodology. This research method consists in repeatedly reading the data-corpus in order to obtain an overall view of the data collected in the in-depth interviews, which in turn leads to the categorization of the information obtained for subsequent analysis (Coldwell, 2007). This coding approach to data is an active process of retrieving concepts and relevant information from a raw data-corpus (Rose *et al*, 2014). In this study, the categories distinguish and reflect on the different factors that influence investment in healthcare hybrid organizations as referred by the interviewees. Once those factors are identified, they are then given a conceptual label, called a code.

One distinct strength of the grounded theory is its ability to investigate emerging topic areas or to shed new light on existing topics, performing effectively in uncertain contexts (Rose *et al*, 2014). Due to its inductive nature, promoted by carrying out the categorization process posteriorly to collecting the data, this is a method that will generate information that makes sense to subjects involved in the situation being researched and hence facilitates the approach to a practitioner audience (Glaser & Strauss, 2006). Considering this is an emerging topic, there is limited research and information on hybrid organizations and impact investment, which makes it difficult to categorize the data prior to its collection. Therefore, one can easily agree that the Grounded Theory methodology is effective in overcoming the lack of information and providing relevant and insightful contributions to the actors in the market.

6. Findings

6.1 Healthcare Investment Environment

Through research in the field, it was possible to understand that the healthcare industry is inserted in a very special investment market with its own particularities. As explained below by “L”, an international accelerator, this is a highly regulated industry with a strong demand for scientific evidence.

The main difference is that you're selling in a very regulated environment and the level of evidence and testing required is incredibly high. Before you launch a product in the market it has to go through a regulatory approval, in which you need to prove its safety and efficacy – those are two major costs. Showing safety and efficacy can take you ten years to do so, hence the shortest time to get a product in the market is 2-3 years, but, on the other hand, I can develop an app and put it on the market tomorrow. The timing is very different and not very friendly towards investment. (Interview – Accelerator L)

The increased regulation and demand for scientific evidence lead to a slower paced environment, characteristic of the healthcare industry, which is referred by all the players in the different projects (namely the four interviewees who are not founders or managers of projects). “M”, besides highlighting the time factor, also mentions that large investments are required to kick-start a project in the healthcare industry as opposed to the amount required in other industries:

The main difference of this industry is its pace. With very high bureaucratic levels and a legal and administrative component as a challenge, through intellectual property certifications, etc... I would add the financing challenge, which is much higher than our initial expectations. For example, one hundred thousand euros, which in the tech industry is enough to build an advanced product and a team, in this industry are not even close of what is needed to take-off. Therefore, the investment necessities are completely different and the investor profile is very different as well – usually they need to be people with a deep knowledge about the market and with an interesting network, going beyond the money. There are not many people like that profile in Portugal, and that is a huge challenge. Then we can highlight the entrance in the market, the certifications, the intellectual property, closing the deal, all of that is very slow. Then there is still a very particular detail on the market which is the fact that the product needs

to please all interested parts, the clinician, the patient, the hospital, etc... The value proposition has to be multi oriented and please more than one stakeholders. (Interview – Accelerator M)

“M” also emphasizes the enormous influence that the different stakeholders have in the success of a given project, which “L” justifies as follows:

You usually don't sell to the user; you sell to the hospital, to the insurer or to the clinician commonly not to the user. (Interview – Accelerator L)

In brief, the interviewees identify three main aspects that set the healthcare industry apart: the slow paced rhythm of the environment; the high level of investment required; and the large number of different stakeholders to please. Naturally, this leads to multiple obstacles that these projects and investors must face in order to succeed.

6.2 Main Difficulties Encountered by Healthcare Hybrid Ventures

So, what are the difficulties that the entrepreneurs face in such a particular market? “M”, a Portuguese experienced accelerator, gives a clear answer:

I have been asking that to all start-ups I meet and the quick and straight answer, in Portugal and abroad, is always: financing. (Interview – Accelerator M)

This view is coherent with the feedback provided by the other entrepreneurs interviewed. “A”, “H” and “J” mention, respectively:

The biggest difficulty, which is applicable to any project of this kind, is investment. That is definitely the main one. (Interview –Entrepreneur A)

The main problem is capturing investment. Without it we cannot move on. These projects are in the so-called death valley, because we need pre-clinical trials without them we cannot move forward, and we can only preform them with investment. (Interview – Entrepreneur H)

We received a scholarship to support entrepreneurs but we ended up spending the money in the company and could not develop a physical version even close to good enough. It happened because we did not have the access to the laboratory and the know-how to do it. (...) Capturing investment, precisely because of this, becomes of difficult access and so the main difficulty. We needed financing but since we offer a hardware project in the medical field it is very difficult to have what to show, have traction or sales which is the kind of metrics that an investor wants. (Interview – Entrepreneur J)

It is clear that investment and funding is crucial in this industry due to the three aspects mentioned above that characterize the healthcare industry. “E” elaborates on this issue:

As with all projects in the health area, we must pay close attention to the norms to be followed during the experiments and with the validation of the results obtained. It was also necessary to increase the number of people working on the project. For all of this and being able to scale the project requires considerable investment. (Interview – Entrepreneur E)

Alongside with funding, the other main difficulty identified by all types of players is the transition process from a research project to a market driven one. This shift of focus, from the occurrences inside a lab to the market necessities and opportunities, demands different skills and increased funds and is hard to achieve it successfully. The Irish accelerator “L” and the Spanish entrepreneur “F”, respectively, agree that this transition is the main issue to be solved.

By far the biggest problem is that companies develop technology first, when the necessity and the market are not clear. (Interview – Accelerator L)

The most difficult thing is to know what is necessary to successfully move from a research project to an entrepreneurship one. Since it has absolutely nothing to do with each other. (Interview – Entrepreneur F)

It is reasonable to assume that the difference in market maturity and available investors in the Portuguese market compared to international ones affect the kind of difficulties encountered by entrepreneurs; in other words, main difficulties may vary according to the geographical market in which the subject is inserted. This way as we have seen previously, Portuguese actors highlight the

funding process as the biggest challenge new ventures face, contrarily to the international players interviewed who point out the transition process as the main difficulty.

Naturally, investors don't identify lack of funding as their main difficulty. They too identify the transition from a lab to the market as their biggest obstacle, but from the point of view of someone who is familiar with the market and is apprehensive to collaborate with someone inexperienced. "N" and "O" state, respectively:

The biggest difficulty we find is the focus of the teams, due to their structure, since most of the teams we work with are scientist and researchers not used to develop business projects outside of the academic world and that is a big obstacle for the project's growth. (Interview – Investor N)

On the CEO level there is a lot difficulties, most of the entrepreneurs that come here are pure scientists that have a good idea and, because of that, will become businessmen. That transition is not linear since the skill set is not the same at all. We are speaking of capturing capital for the company, for example, and that is not easy for pure researchers. You can be a brilliant scientist but to run a business you need different skills. (Interview – Investor O)

Entrepreneur "I" draws a connection between lack of funding and lab-to-market transition:

The biggest difficulty is finding the necessary funding for the transition between the research and the final product to be in market. (Interview - Entrepreneur I)

Concluding the two main obstacles identified are funding the projects and the transition from the labs to the market. Admittedly, the investment in healthcare projects and how to attract it is a real worry and a huge obstacle that entrepreneurs face. It is essential to understand what the main factors that attract investment are.

6.3 Factors that Attract Investment

To understand what are the factors a project must gather in order to attract investment, according to entrepreneurs in the healthcare industry, we asked them directly. The answer given by "L" introduces plainly this topic:

What you are doing has to be absolutely ground breaking and the impact of your product has to be huge, whether on the patient, on the clinician – by saving them time or making their task easier–, or on the healthcare system – by cutting costs. If the clinician is not jumping over the table to grab your product from your hand, you probably won't be very successful. Still, you can do all that and not be funded. The problem you might face next is not having a big enough market to attract investment, which often happens. (...) I mean you can have a small market as long as the cost of getting it is also small (...) You must also look for clinical validation, meaning you must speak to circa 60 to 70 clinicians who tell you they would use your product. That clinical validation is very important. (Interview – Accelerator L)

As explained by this accelerator, one must not only focus on a single factor. Instead, according to “L”, a product must offer a strong combination of: Innovation, Focus on the Market and Validation. Other interviewees further believe that an organization must gather three other factors in order to attract invest – a competent Team, high Social Impact and the potential of a strong Intellectual Property –, stating respectively:

Innovation

The fact that our project is a very innovative one, particularly when using an app - a tool still rarely used in this area – is, undoubtedly, what made us able to raise the necessary capital. (Interview – Entrepreneur H)

As explained by entrepreneur “L”, a disruptive product – one so innovative that it could change people’s behaviour – is key for the success in this area. According to “O”, it is not possible to strive in this industry with only a different way to perform the same tasks.

We only invest in projects where technology is definitely disruptive, projects that are copies of other ideas already seen in other parts of the world are not accepted (Interview – Investor O)

In pursuance of disruption, “B” advises fellow entrepreneurs not to be constrained by standard behaviours and mind frames.

Entrepreneurs must understand clearly the problem they are solving and do not focus on dogmas to find the best solution. (Interview – Entrepreneur B)

“B” also suggests that not only must you be disruptive but also thoroughly understand the problem that you are proposing to solve, implying an external focus, not only on the project itself, but on its necessity in the market. “G” explains the reason behind his product’s success and says that a disruptive technology as well as the continuous assessment of the market and his competitors was essential.

Regarding reconstructive plastic surgery (in congenital diseases, burns, cancer) multiple surgeries are often required to improve the patient’s life. Currently there are other systems available that automatically quantify facial movements, but the G system has important advantages: the cost of the required hardware is low; is a portable system; no specific installation settings are required; works in 3D. The system is ahead of its competitors. (Interview – Entrepreneur G)

“G” illustrates perfectly the situation exposed: to begin with, he pinpointed a necessity in the market, and then he used disruptive technology to tackle the issue. As a consequence, he built an attractive project with an advantage over his competitors.

Market Drive

As mentioned previously, market research cannot be ignored, even though different entrepreneurs put different focuses on distinct aspects of the market. For instance, “E” focuses on market size and argues that a product must have potential to scale in order to fulfill the demands of a large market.

It is essential to have an idea that can easily be escalated. (Interview – Entrepreneur E)

Just like “E”, “I” also highlights the size of the market along with other factors such as the demand of the market and limited number of competitors.

Our product will have a very huge impact in a market that covers a large number of patients. The market is large and the number of competitors is low. (Interview – Entrepreneur I)

A more complex approach is proposed by both “F” and “A”, who introduce the concept of product-market fit. “A” also warns about the fact that, in this industry, the users are often not the buyers; this means that, in case the user and the buyer are not the same, both of them must always be taken into consideration.

Finding out if there is a product-market fit (...) it's very important to focus on the customers. Talk to many people, many customers, and realize who has influence on the purchase decision, (...) so not only the users, not only the buyers, but all of those who have a say about the product, it must be built a value proposition for all involved. (Interview – Entrepreneur A)

On the other hand, “N”, as a trained investor, argues that the size of the market is not relevant. Niche projects are also interesting to invest in – as long as the demand is clear, a niche market in the healthcare industry may represent millions of users. “L” also explored this idea:

For the project to become attractive it is essential that the entrepreneur is able to clearly identify the need, not necessarily the size of the market because a niche on a global scale can be a market of millions of users. (Interview – Investor N)

The problem you might face next is not having a big enough market to attract investment, which often happens. This does not necessarily mean the absolute size of the market, but the ratio between market opportunity vs. the cost of entering that market. I mean you can have a small market as long as the cost of getting it is also small. (I-L)

It is important to understand how the product fits within the market; in that sense, it might be advantageous to have a well-delineated business case, referred by “H”, and exit strategy, as pointed out by “L”. Entrepreneurs and accelerators often ignore this, however, an obvious and properly structured exit will more likely attract investment.

One way you can differentiate yourself is building a roadmap clear about the next steps. (Interview – Entrepreneur H)

An investor looks for projects that are attractive acquisition targets; this is, not only to him/her but also to other investors. Illustrating this with an example: an investor who injects 9 million euros in a company might be looking for a return of 10 times that amount, i.e. 90 million euros, which he might get if someone else acquires the company. So if they find a company whose acquisition is very attractive – for example, the J&J portfolio –, that's a big plus, even though entrepreneurs usually fail to think this way. An investor is always thinking about their exit, how to get their money back. (Interview – Accelerator L)

Team

Besides the importance of focusing on the market status, “L” stresses that investors value a team with past experience in management, who can promptly react to market changes:

Investors normally prefer a team with experience in running a business, however this is not something that we, accelerators, would usually look for and that is an additional risk we face. (Interview – Accelerator L)

“M” goes a step further by stating:

It is a combination of technology, approach to the market, and have a team capable of offering both. (Interview – Entrepreneur M)

In just one sentence, “M” summarizes the three points analyzed thus far: innovation, market and team. According to his experience, these three factors are intertwined and gather the main characteristics that an investor looks for in a project. It is important to take notice, however, that only “L”, as an investor, refers concretely to the characteristic he values the most in a team – past experience in business; the entrepreneurs and accelerators refer to the team subjectively, valuing the general welfare of their relationships. Entrepreneur “B” argues that, in the early stages, given that the business model is well thought out, the most important factor for investment decisions is the quality of the team.

The belief in a business model that made sense (although with adaptations that we have come to materialize) and verified that necessary condition, the critical factor was the team’s evaluation that was considered to be very strong by the investors. In such an early phase of the company’s life, the most critical factor of success is the team’s quality (Interview – Entrepreneur B)

A strong team that builds a positive impression on the investor is critical for the company’s success. In fact, the importance of a well-rounded team is also highlighted by “A”, who emphasizes the value brought by the diversity of its members:

The investors really liked the team and saw that, XXX (the other founder) and I, are very different from each other and so complementary. (Interview – Entrepreneur A)

Stakeholder Validation

Validation within the healthcare industry reassures investors about the feasibility of the product. “A”, who believes that the validation of their product by different parties enhanced its attractiveness for investment, and “F”, who was able to present patients and clinicians using the product through many years, state respectively:

We had validation at the university-level, at COITECH and at Carnegie Mellon in the US, we also had a good international advisory board and letters from clients saying that if it were to market they would buy. (Interview – Entrepreneur A)

The fact we already had a prototype and also already proven our work with doctors on clinics. When we tried to capture investors we already had many years with clinicians using our product in patients. (Interview – Entrepreneur F)

As mentioned previously by “M”, many different stakeholders interact in the healthcare industry and all must be pleased. “G” supports this idea by stressing the importance of obtaining validation from all stakeholders:

If it is a medical technology to be used in medical field, it is very important to always have the opinion (and, if possible, participation) of clinicians. (Interview – Entrepreneur G)

Intellectual Property

Intellectual property rights are valuable assets for companies that protect their business, so they are key to any valuable product placed in the market. However, it must be created properly in order to become an advantage instead of a leverage.

The potential of patent creation and the fact that we have not done it yet, because the CEO of X (our investor) is a specialist in this area, with several patents already created, and he liked having a technology that could be patented and that he could work on it with us. (Interview – Entrepreneur A)

Instead of rushing into the application process just for the sake of holding a patent, “A” firstly sought for investment. In fact, their investor saw value in their intellectual property and was satisfied by the

opportunity to work conjointly with the company in obtaining a patent. This opinion is shared by the two investors interviewed, “N” and “O”, who explain why they like to get involved:

Little preparation on intellectual property often kills the project from the beginning. Especially at the level of patents, because often these are poorly made and when it is the case we do not invest. (Interview – Investor N)

About patents: they do not need to have patents created, provided they have not disclosed anything, we can, with our knowledge, create it. Here in Portugal all patent specialists are lawyers and not people who have knowledge in this area. This leads to a problem because the projects arrive with very fragile patent. You never know how strong the patent is until the time when the company starts to grow, only then the patent strength is tested and, if poor, it is already too late. We have worked with a specialized international office, the best in the world, to make patents to the projects we support and when it is not done by them the first thing we do is to ask them to review the patents already made here in Portugal to realize their strength. (Interview – Investor O)

“N” considers it to be the most determinant factor when deciding to invest. If the patent is not correctly made and actually protecting the intellectual property, the project is not worth of investment. “O” also offers a solution to companies that they support using their network to provide a strong and reliable patent.

Social Impact

In light of organizational hybridity, “M” affirms that a positive social impact is crucial for projects to reach their financial objectives.

In this industry, my perception tells me that when someone proposes to bring a solution to a pressing problem - for example, trying to diagnose cancer early - that factor continues to have a very significant effect. The ambitious and inspiring character makes investors also want to be part of the project. (Interview – Accelerator M)

“M” argues that, particularly in the healthcare industry, some degree of romanticism still prevails and that investors still consider the impact of their actions in society. This idea is shared and confirmed

by “H” and “E”, who also believe that the fact that their projects have a direct and substantial positive impact on society greatly influenced investors when it came to embracing their projects over others:

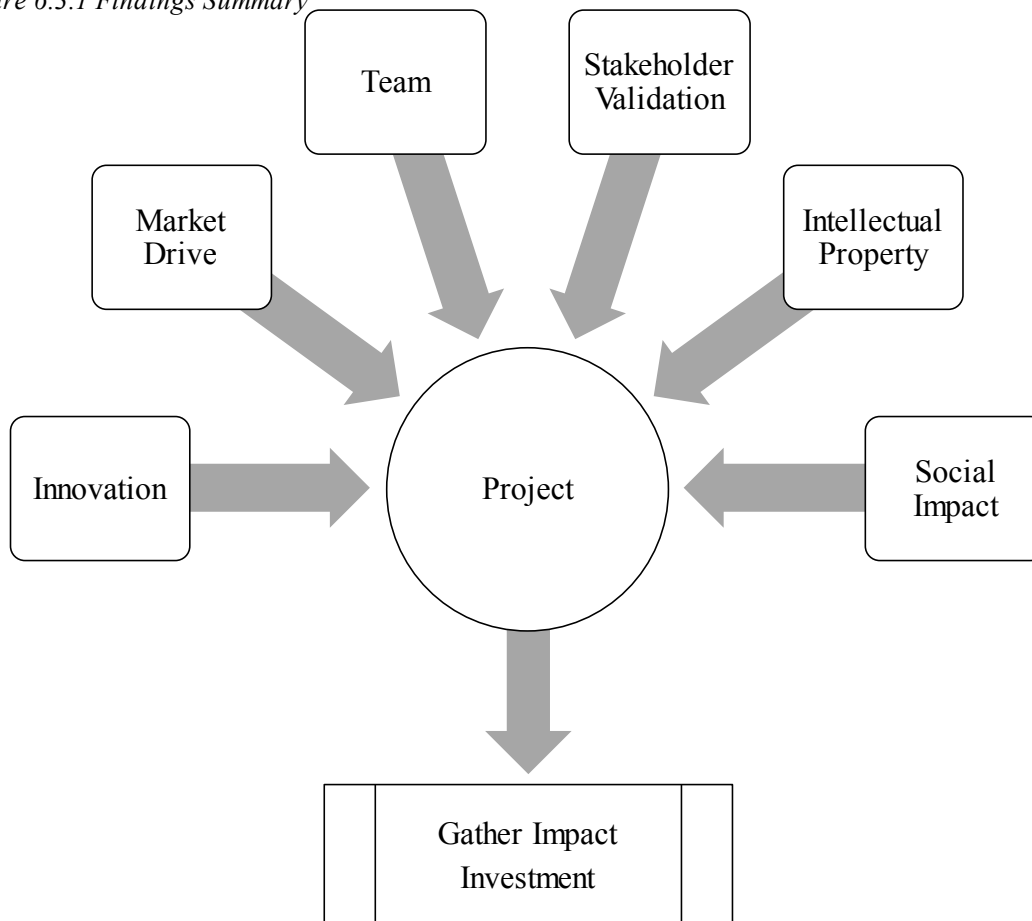
From the social impact point of view it is not necessary to explain the advantages of having such an application – which helps to prevent cancer – since it is immediate. So, while attracting investment, having a direct social impact turned out to be a big advantage. (Interview – Entrepreneur H)

This project addresses a global huge hospital-wide problem, with serious consequences for patients and very high costs for hospitals. (...) The greater the impact of our project in society in general, the easier it is to raise funds. (Interview – Entrepreneur E)

Coherent with the definition of impact investment we can see that having a great and direct social impact attracts investors to such projects.

In conclusion, figure 6.3.1 illustrates the six main factors that the fifteen actors in the market highlighted as the most important ones to attract investment for a given project.

Figure 6.3.1 Findings Summary



7. Conclusion

The objective of this dissertation is to study what are the main factors that a hybrid organization in the healthcare industry should gather in order to offer profitable opportunities for investment.

Hybrid, in general, refers to the condition of being built through the combination of two or more parts of different elements (Battilana & Lee, 2014). When dealing with organizations, hybridization refers to combining parts of different institutions that in the past were considered to be restricted to one specific sector or organizational form (Markman *et al.*, 2016).

In this study, the organizations met the selection criteria in regards to their hybridity if they presented themselves as a for-profit business with the incorporation of social responsibility in their values and/or combined market and academic rationales, with the intention of advancing the medical discovery in biotechnology firms. Most of the organizations – all of whom integrate economic-financial with social or academic logics, hence fulfilling the definition of hybrid organizations – presented themselves as healthcare start-ups. The healthcare industry is very particular in the fact that it is so intricately associated with social responsibility, as imposed by bioethics entities, such as the International Bioethics Committees (UNESCO, 2010). Therefore, one can easily understand that in the healthcare industry, in light of this particularity, the definition of “start-up” and “hybrid organization” may be overlapped, when taking in consideration that healthcare start-ups tend to solve social problems whilst seeking financial return.

Bearing in mind that we are dealing with recent topics (Battilana & Dorado, 2010; Battilana & Lee, 2014; Battilana *et al.*, 2015) that require further research, a qualitative methodology was adopted, performing an exploratory study focusing on the experience of individuals that are familiar with financing operations of healthcare start-ups. This was accomplished through a series of in-depth interviews with relevant players in the healthcare industry – founders and/or managers of healthcare start-ups, investors and accelerators specialized in the sector.

The data analysis followed a Grounded Theory methodology: the data-corpus was repeatedly read and, as a result, an overall view of the data collected during the in-depth interviews was obtained, which in turn lead to the categorization of the information for subsequent analysis (Coldwell, 2007).

Through the contribution of these three types of stakeholders, it was possible to retrieve the distinct aspects that characterize this industry and the main obstacles that healthcare start-ups must overcome when trying to prosper.

Since the healthcare industry is an extremely regulated environment, with a high level of evidence required prior to launching a product in the market, its environment moves at a very slow pace and it may take years before an entrepreneur can actually sell his product to the public. Another key factor that characterizes this industry is the high level of investment required for each project. This adds up to the main difficulty encountered by healthcare entrepreneurs in the Portuguese market: the access to funding. In fact, understanding the reasons behind this difficulty and seeking the necessary tools to overcome this obstacle were the greatest motivations of this study. Besides the difficulty in accessing to investment, other players in the market, especially international ones, highlight the struggle in transitioning from the lab, where the product is developed, to the market.

To tackle the obstacles detected, six factors were identified as key in improving attractiveness for investment in this market.

Firstly, innovation was closely associated to product/service success. In such a competitive market, a company must develop disruptive ideas in order to strive; otherwise, it will fail to stand out from other existing products.

Even though a company must commit to innovation, the necessity of the market must always be taken into account. Therefore, the second factor identified was the focus on the market. Some interviewees highlight the size of the market as the most important aspect; however, this was not a unanimous belief. Still, all interviewees could agree on the fact that it is crucial to have a clear and well-defined market. Some also argued that, given the plurality of stakeholders involved in the healthcare industry, a company must consider all stakeholders' needs and meet as many different interests as possible. In fact, the user is not usually the buyer and the decision to buy the product depends on a broad number of different types of actors in the industry.

Thirdly, investors also show great interest in the profile of the founders' team, valuing specially teams with past experience in the business world.

Fourthly, validation assures investors that third parties, such as clinicians, also saw interest in the product. This is particularly handy when dealing with start-ups, which usually don't have concrete results they can present at an initial phase. Validation also provides credibility and safety demanded by the investors.

Fifthly, the two investors expressed the value attributed to intellectual property. A poor patent, that fails to protect the idea properly hence reduces greatly its financial attractiveness, is a good enough reason for an investor not to invest. Investors even often like to get involved in the application process for a patent, to assure a strong patent is obtained.

Lastly, a positive social impact is referred to as an important characteristic that an investor looks for, affecting the likelihood of a project obtaining its necessary funding. In other words, an ambitious and impactful project allures investors to get involved.

All in all, one must not focus on one factor only; in fact, excelling at just one of them may be insufficient to capture investment. Entrepreneurs must deliver a compelling combination of these six factors in order maximize their chances of attracting the necessary capital to scale and reach new markets, and to offer improved and cheaper products and treatments, creating a positive impact on, potentially, the global health and, ultimately, save lives.

7.1 Contributions

This exploratory study aims to contribute with information about a growing industry that still remains understudied, particularly in Portugal. By focusing on the healthcare industry, the results are context dependent; however, more specific information is valuable for the players involved, may it be from a financial point of view or even from the users' and general population's perspective. Either way, health will always be a pressing matter and, consequently, investment in health will continuously yield one of the highest rates of return that a country can achieve. In this study, using a Grounded Theory approach to draw information from the direct testimonials of the players facilitates the translation of the information to the market, to some extent.

The combination of different opinions from different types of stakeholders – 11 entrepreneurs, 2 accelerators and 2 investors – is useful to formulate a wider theory that aligns expectations and helps to stimulate the growth of an emerging market in Portugal.

Being the access to funding one of the main obstacles found by players in the Portuguese market this dissertation can help by exploring the reasons behind this difficulty and providing information for companies to gather the necessary tools to overcome this obstacle and successfully gather investment.

7.2 Limitations

One limitation of this study is the fact that it is practically based on the Portuguese market solely – only two out of the fifteen interviewees were not Portuguese – which, obviously, limits the reproducibility of the results in other geographical markets. Secondly, the sampling number of interviews is relatively small due to the fact that the market in Portugal is still very immature, with few players and of difficult access. Furthermore, most of the contact attempts were ignored. Also, given this is an understudied subject, bibliographical support is very limited, especially in Portugal where information is almost inexistent. Lastly, this dissertation only presents a snapshot of the industry, in the sense that it describes the situation at a given moment, as opposed to a longitudinal view, which would monitor the progression of the industry.

7.3 Future Research

Further research is required to study the level of importance of each factor over others and the interconnection between them; to evaluate the situation at an international level, with actors from different markets, in order to understand the differences between geographical areas; to determine whether certain characteristics of a market influence the relative importance of each factor; and, lastly, to explore other relevant industries, aiming to aid entrepreneurs in various industries with successfully attracting investment.

8. Appendix

Table 3.1 Interview Founder or Manager of a Hybrid Organization in the Health Sector

Dimension	Objective	Questions
Know the company	Identify the interviewee and the company – foundation and history of the enterprise, position of the interviewee	1. Thank you _____ for accepting the invitation for the interview. As an introduction, can you please tell me about the creation of ____? And what is your current role on the company?
	Understand the project – core business; mission; beneficiaries; and clients – and its foundation	2. Can you tell me a little bit about the mission and the business of _____? 3. About the story of _____? How did the idea come, and what it took to make it a reality? 4. Between the foundation of _____ and today, which are the main difficulties you found along the way to keep the project growing?
Past investments	Check details of past external investments – stage of the project, amount, investors	5. Financially speaking, how was the project funded? Meaning what was the proportion of external investment occurred, and by whom? 6. Did _____ already had any external investment? What can you tell us about that experience? (want to know who invested, at what stage of the company) 7. What did, in your opinion, mostly influenced the investors to choose your project?
Future investments	Direct question about the personal opinion of the interviewee	9. What recommendations do you have, for future entrepreneurs create attractive projects for investors?
Relevant Data	Facts about company and interviewee	10. Now some facts about _____ – year of foundation; number of workers; Number of external investors (in terms of capital) and who? 11. About yourself, can you tell me your: Age, Gender, Level of Education, Position in the company;

Table 3.2 Interview Consultant of Hybrid Organization in the Health Sector

Dimension	Objective	Questions
Know the company	Identify the interviewee and the company – foundation and history, position of the interviewee	1. Thank you _____ for accepting the invitation for the interview! As an introduction, can you please tell me about the creation of _____? And what is your current role on the company?
	Understand the project mission, and interest for the health sector	2. Can you tell me a little bit about the mission and the business of _____? 3. Why focus on the healthcare industry? What’s special on the industry so that you focus only in companies in the health-care sector? What distinguishes the sector from the others?
Company activity	Understand the experience of the interviewed. Check details of past experiences in the field	4. Considering that you support projects to attract investment what do you consider to be the main difficulties companies find that activity? 6. Which are the most important factors of a project that you look for when helping it to find investors? 7. Which are, in your opinion, the most important factors investors look for when deciding to invest, or not, in a project?
	Direct question about the personal opinion of the interviewee	8. What recommendations do you have, for future entrepreneurs in the industry to create attractive projects for investors?
Relevant Data	Facts about company and interviewee	10. Now some facts about _____ – year of foundation; number of workers; Number of companies supported 11. About yourself, can you tell me your: Age, Gender, Level of Education, Position in the company;

Table 3.3 Interview Investor in Hybrid Organization in the Health Sector

Dimension	Objective	Questions
Know the company	Identify the interviewee and the company – foundation and history, position of the interviewee	1. Thank you _____ for accepting the invitation for the interview! As an introduction, can you please tell me about the creation of _____? And what is your current role on the company?
	Understand the project mission, and interest for the health sector	2. Can you tell me a little bit about the mission and the business of _____?
Company activity	Understand the experience of the interviewed. Check details of past experiences in the field	3. Considering that you focus on projects on the seed and growth stage what do you consider to be the main difficulties companies find between those stages and the maturity? 4. Which are, in your opinion, the most important factors when deciding to invest, or not, in a project?
	Direct question about the personal opinion of the interviewee	5. What recommendations do you have, for future entrepreneurs create attractive projects for investors?
Relevant Data	Facts about company and interviewee	6. Now some facts about _____ – year of foundation; number of workers; Number of companies supported 7. About yourself, can you tell me your: Age, Gender, Level of Education, Position in the company;

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