

POLITECNICO DI TORINO
DEPARTMENT OF MANAGEMENT AND PRODUCTION ENGINEERING
MANAGEMENT AND ENGINEERING

MASTER THESIS
START UP PERSPECTIVE IN ATTRACTING INVESTORS: POLITO I3P CASE STUDY

AUTHOR:
SHERFIAJ ERA

SUPERVISOR:
UGHETTO ELISA

March 2020
Torino, Italy

ABSTRACT

Entrepreneurial activities have been spread at a high rate in the last past years, attracting and increasing the attention of society and academia. Their presence has influenced economy, technology and social life. Start-ups are the initial step for further development of new young businesses with perspective to grow, become big and bring new technologies, new solutions, new ideas to the world, create employment and contribute in economy growth. To reach this success and have an interaction with the world these start-ups need support especially financial, they need capital and investors that provide this capital. As there is vast amount of existent work in investors characteristics and criteria, it is curious to see that literature works focuses on investors, start-ups success factors and failures neglecting start-ups perspective in attracting financial capital.

This thesis aims to understand the process start-ups follow to attract investors attention and capital. The core goal is to recognize, analyse start up viewpoint and strategies they follow to generate funds. The study implements qualitative methods and focuses on Polito I3P start-ups, it presents 17 interviews conducted with start-up founders and teams, to identify the process they follow to reach financial support.

Research shows that the process is very complex, and a combination of many steps and factors is needed to be successful. Personal network, new connections earned by participation in events, abilities and technical skills, goal alignment of team members, valuable product, market research and continues search for investors are among factors followed by start-ups in their path of accomplishment. Finally this study work contributes to academic work and literature on start-ups and their journey to success, also contributes to Polito I3P start-ups, through this work they can review their position and take necessary steps to enhance their overall performance and procedure they pursue to attract capital.

Key words: I3P, start up, investor, capital, perspective, network, financials,

ACKNOWLEDGEMENTS

The journey of completing this thesis has been very challenging, and I wouldn't be able to finish successfully without the help of important people.

Firstly, I want to thank I3P start-ups for participating voluntarily and give their contribution on this work. Secondly my professor Elisa Ughetto for helping me with every step and suggesting ideas and solutions to get out of difficulties.

I want to thank my friends here in Politecnico which have made my journey easier, sharing laughter and beautiful moments. Great thank u to crazy Beliz for being there ready for any new crazy adventure, Asli for pushing me to work harder, and focus on my work, Betul for being the comic girl of our group, she always had something to share and get us out of our monotone life.

I want to thank my bestie Sibora for always being there supporting and rooting for me.

I want to thank my uncle and his family here in Torino for helping me to start my journey in Polito, and my little cousins who give me hope for the future, Margerita, Alex and Elios , they are shining lights which have filled my university life with joy.

Finally but not least I want to thank my family, they are my biggest supporters helping me in every direction and fighting form me, they are my power resource and I Thank them from the bottom of my heart, my ninja mama, my hero papa, my funny brother and my fierce little sister.

Thank you all!

Faleminderit!

Era Sherifaj

TABLE OF CONTENTS

1	INTRODUCTION	8
1.1	Research Background	8
1.2	Research Gap	9
1.3	Thesis Scope and Limitations	9
1.4	Outline	10
2	LITERATURE REVIEW	11
2.1	Start-Ups	11
2.1.1	History of start- up Terminology	11
2.1.2	Start-up Definition	12
2.1.3	Start-up Types	14
2.1.3.1	Start-ups lifestyle (Work to live their passion)	14
2.1.3.2	Small-Business Start-ups (Work to feed their family)	16
2.1.3.3	Scalable start-ups (Born to be big)	16
2.1.3.4	Buyable start-ups (Acquisition Targets)	16
2.1.3.5	Social start-ups	17
2.1.3.6	Large company start-ups (Innovate or Evaporate)	17
2.1.4	Start-up life cycle	19
2.1.5	Capital Funding Rounds	20
2.1.6	Importance of stat-ups	22
2.2	FUNDING	24
2.2.1	Finance importance for start-ups	24
2.2.2	Sources of finance for entrepreneurial activities (start-ups)	26
2.2.2.1	Internal sources of financing	26
2.2.2.1.1	Founder (Owners capital), Family, Friends and Fools	26
2.2.2.1.2	Bootstrapping	27
2.2.2.1.3	Strategic Alliances	27
2.2.2.2	External sources of financing	28
2.2.2.2.1	Angel Investors	28
2.2.2.2.2	Venture capitalists	29
2.2.2.2.3	Crowdfunding	30
2.2.2.2.4	Banks	32
2.2.3	Other sources of financing	33
2.3	INVESTMENT CRITERIA	33
2.3.1	Business angel's investment requirements	34

2.3.2	Venture Capitalists Investment Criteria	37
2.3.3	Investors' evaluation criteria in Crowdfunding.....	41
2.4	ENTREPRENEUR CAPITAL ATTRACTION STRATEGIES.....	42
2.4.1	Strategies for attracting angel investors	42
2.4.2	Strategies for attracting Venture Capitalists.....	44
2.5	Start-up Incubators	45
2.5.1	Role of Incubators.....	46
2.6	ITALY START-UPS.....	48
2.6.1	Italy Entrepreneurs.....	49
2.6.2	Italy start-up funding.....	49
2.6.3	Italy start-ups general knowledge.....	50
3	METHODOLOGY.....	51
3.1	RESEARCH PROBLEM AND RESEARCH DESIGN.....	51
3.2	Methodological approach	52
3.2.1	Method Background	52
3.2.2	Method Advantages and Disadvantages	54
3.3	Data selection.....	55
3.4	Data generation and collection.....	56
3.4.1	First stage of data collection.....	56
3.4.2	Main stage of data collection.....	57
3.5	Data Analysis	57
3.6	Challenges.....	58
4	RESULTS.....	59
4.1	Interview Analysation.....	59
4.1.1	Questions about entrepreneur	59
4.1.2	Questions about start up.....	60
4.1.3	Question about Organizational Factors	62
4.1.4	Question about Investor characteristics	63
4.1.5	Question on how start-ups attract investors.....	64
4.1.6	Questions about Financial factors.....	65
4.1.7	Questions about business market and product.....	66
4.1.8	Questions about presentation.....	69
4.1.9	Question about Investments	70
4.1.10	Questions about I3P	70
5	DISCUSSION.....	72
5.1	Discussion on start-up sector and type	72

5.2	Discussion on sources of finances.....	73
5.3	Discussion on investment criteria.....	73
5.4	Discussion about strategies entrepreneur follow to attract capital	74
5.5	Discussion on incubators	76
5.6	I3P Start-up road to investor	77
6	CONCLUSION.....	78
6.1	Contributions.....	81
	Bibliography.....	82

ABBREVIATIONS

BA	Business Angels
VC	Venture Capitalists
FFF	Friends Family Fools
IP	Intellectual Property
Polito	Polytechnic University of Torino
ROI	Return on Investment
CEO	Chief Executive Officer
SME	Small Medium Enterprises
R&D	Research and Development
BAN	Business Angel Networks
IT	Information Technology
IPO	Initial Public Offering
NPV	Net Present Value
MBO	Management Buy Out
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
I3P	Incubatore Imprese Innovative Politecnico Torino (Innovative Enterprise Incubator of the Polytechnic University of Turin)

LIST OF FIGURES

Figure 1. Start-up vs Scaleup	14
Figure 2. Mobile app usage	15
Figure 3. Global mobile app usage by category	15
Figure 4. Buyable Start-up	16
Figure 5. Social Entrepreneurship Start-up	17
Figure 6. Large company sustaining innovation.....	18
Figure 7. Large company disruptive innovation.....	18
Figure 8. Start-up life cycle.....	20
Figure 9. Start-up financing rounds	21
Figure 10. Start-up funding sources.....	42
Figure 11. How incubators help start-ups	47

LIST OF TABLES

Table 1. Start-up financing Rounds	22
Table 2. Investor Criteria	34
Table 3. Angel Investment Requirement	35
Table 4. Venture Capitalist Investment Criteria.....	41
Table 5. Distribution by business sector	88
Table 6. Distribution by company type.....	89
Table 7. Regional distribution and density.....	90

APPENDICES

Appendix A	Italy Start-up Main Evidences
Appendix B	Start-up Sampling
Appendix C	Interview Guidelines for Research Questions
Appendix D	Face to face Interview Example (Young Platform)
Appendix E	Audio Message Interview Example (Numenu)

1 INTRODUCTION

This first chapter is organized in four subparts. It starts with research background to specify and clearly explain the topic considered. The part continues with the research gap, what is missing and how this work will try to bring a new insight and raise awareness for the need of further work on this topic. In the third subpart the defining of thesis scope, the research objective, research questions, the problem and overall goal is presented. Finally, the outline of thesis with an overview of the main points is discussed, clarifying thesis structure.

1.1 Research Background

A start up is a youthful entity that has just started to create and operate. New companies are typically small and run by a modest group of founders or just one person at the very beginning. Such organizations sell an item or service which is not sold anywhere else on the market at that time, or which the authors agree is provided in a second rate. During the early stages, the costs of new companies outperform their earnings as they try to build, test and advertise their ideas. “We have to learn what customers really want, not what they are saying they want or what we think they want”, (Ries, 2014) this is a philosophy of accomplishment ignored by most aspiring entrepreneurs. In general, they need money and a committed team on a regular basis. An entrepreneur without financing is like an artist without an instrument. New ventures might be founded by traditional, independent company advances from banks or credit unions, and limited, sponsored by the government. (Jr, 2012) Investors can provide both capital and advice for new companies, while family and friends can give advances or good wishes as well. A start up that can prove its capacity may have the power to pull in investment financing in exchange for giving up some control and rate of ownership of their organization.

Bad things happen. They always do. The chances of going from start-up creation to liquidity without any problem are one in a thousand. Paul Graham suggests start-ups to not get depressed because establishing a start-up and running a good start-up are two different things.

A long- standing question in the study of entrepreneurship and strategic development has been: how different early resources shape a young company? From an operational point of view, start - ups are resource constrained, but generally more accessible and open to advice than existing organizations. (Smith & Hannigan, 2015) A major challenge concerning young entrepreneurs is how to access adequate financial and mentoring support to go beyond the idea stage. (Cassar, 2004) According to M. Masons estimations, about 137.000 new companies are registered around the globe every day. Enterprise activity is on the rising, and start-ups are growing at an accelerating pace. Meanwhile, around 0,25-2% of all start-ups pursuing venture capital, receive funding (Hsu, Venture Capitalists and cooperative start-up commercialization strategy, 2006). Due to the information asymmetry between the entrepreneurs and potential investors, almost all new innovative companies face obstacles in the capital attraction stage. However, certain entities tend to be more successful in capital attraction than others, indicating the existence of different paths, strategies, factors related to different perspectives start up founders follow to confidently receive seed capital from investors.

Current studies focus on venture capital investors, which stand for business angels and venture capital funds, who have their own set of criteria that must be met in order to provide financial support to start ups. Most articles identifying the most important characteristics for early- stage investors highlight the team’s leadership skills and the entrepreneur abilities in particular, as important elements for the start up during the fundraising round. However, start-ups with different cultures, knowledge, experiences have their own standpoint on what is important during capital raising process and they follow specific paths which differs according to their characteristics.

1.2 Research Gap

The performance of entrepreneurial firms in terms of innovation, job creation, economic growth and productivity growth is constantly increasing and improving, affecting the number of new start-ups that are created every day. This has increased the immediate attention of researchers and media which have developed many works on different aspects and topics. The research available can be synthesised in four main areas. Firstly, “start-ups” where there is developed literature on entrepreneurial theory and entrepreneur’s behaviour, entrepreneurs’ reasons on starting new businesses start-up characteristics, types and start-ups establishment phases, start-up importance, impact on technology and society. The second group is the work concentrated on investors whose capital is needed for funding new ventures. Types of investors, investor characteristics and criteria in selecting, number and amount of investments are among the topics discussed in this part. The third section includes work on other start up supporters such as accelerators, incubators, government and policies. Lastly, all other literature which is a mix of previous groups, similarities, differences and the importance of each factor, reasons of start-up failures and critical success factors are analysed. All previous research is normally focused on theoretical concepts of the entrepreneur mindset, investors financing and effect they have on start-up success, leaving gap for further work on start -ups stand-point, strategies and thinking. Furthermore, extensive amount of research papers can be found about entrepreneur’s specific process and path followed from idea generation to business establishment. However, within academic literature there is lack of papers about start-ups, entrepreneur’s perspective on how to attract investors.

This study seeks to analyse start-ups view point in the process of capital attraction, and strategies they follow to get financial support to solve this gap and fill the other side of the coin and get a complete view, from what investors want, to what start-ups think investors want, and what they do to impress them. To reach this goal a detailed analysis of interviews conducted with a group of entrepreneurs from Polito I3P is performed. The research brings a new view in the academic information, by bringing start-ups whole process of capital attraction.

1.3 Thesis Scope and Limitations

The main intention of this research is to perform a thorough analysis, of start-ups incubated in I3P, capital attraction process. Hence, the first goal of this study is to examine the strategies and paths entrepreneurs follow to get financial support from investors. The second goal is to take in consideration and understand also the entrepreneurs view of point on what investors want to see, as a reaction to previous research which focuses only on investor perspective. To reach this goal, the community decided to be carefully analysed was the start-ups in Politecnico university business incubator, through interviews conducted with start-up teams or entrepreneurs. Interviews were a discussion among the main objective also other questions which support the main research questions such as:

- How start-ups attract financial capital?
- Do they follow any specific strategy?
- Do they know what investors really want and try to comply with them?
- Do they give proper work and attention to capital attraction or they are most focused on start-up development and live it to luck, and hope some goodhearted BA or VC will invest in them?

Hypothesis of this thesis is: Understanding start up viewpoint may bring new proof work to the research market, therefore positive effect for start-up overall performance and successfulness especially in attracting capital.

The research framework is applied within a case study research strategy. Since a thorough understanding of the identified phenomenon is required, a qualitative method is applied in order to answer at full extent all the research questions. The interview process is divided in three main parts: the initial part focuses on elaboration of interview guideline supported by research and supervisor control and suggestions, secondly, interview questions were put in test through an initial small group of entrepreneurs. Finally, considering feedback, critics and suggestions the final guideline was completed and interviews were conducted in mass to 17 start ups in I3P.

Although a case study is not a simple research technique to generalize research results, a good sample of 17 start-ups brings quality and generalization opportunities to this research. The scope of this research focuses solely on start-ups, and its results may not be true for larger or established companies with greater experiences in market. Also, from this research couldn't be delivered a global perspective because it is focused only in one incubator of a city in a single country. However, it is a good start for further research and considering the presented sample, this research completely addresses the research questions and objectives.

1.4 Outline

With the purpose to present the outcomes of this research in a structured manner and to ensure a high level of readability, this study is organized into five parts. The first chapter is "introduction" which includes the research background, research gap as well as research objectives, questions and limitations. The subsequent chapter, "Literature Review" addresses all the related principle and theoretical framework. For a deeper understanding of particular concepts this chapter is split into six subchapters. They are Start-ups, Funding, Investor Criteria, Access Strategies, Incubators Role and Italy Start-up Overview.

The next chapter is "Methodology". It involves a full description of the methodological framework of this study, including research problem, design, data collection, method background, advantages disadvantages and limitations. The next chapter is "Results", it has two subparts, the qualitative interview analysis and discussion in which the findings from interviews are compared to related theory, previously discussed in the chapter "Literature Review". A This chapter also intends to answer defined research questions and accomplish research goals. Finally, "Conclusions" is the last section of this study. It discusses the limitations of the research and theoretical and business implications. Also challenges researcher for new studies on this topic.

2 LITERATURE REVIEW

This chapter provides an in-depth review and analysis of the theory related to this research topic. Literature review is necessary to support the study and help to reach stated objectives and research questions. It covers main theory principles, previous research studies and brings a rich background relevant for the empirical part of the work. Furthermore, the study of academic literature, key theoretical insights and latest developments, promotes a better structural model for the entire research. The theoretical review is constructed taking into account academic literature, books, and trend topics. To collect the information different data sources were used. For this research the most used source was Research gate and the Google Scholar search tool. Also, research paper includes reviews from many famous business, management, entrepreneurship and finance journals. The main phrases used to search the appropriate literature for this study were: "Start-up"; "Investor Criteria"; " Sources of Funding"; "Venture Capitalist"; " Business Angel"; "Incubators" and "Start-up Strategies".

This chapter is divided into six subparts "Start-ups", "Funding", "Investment Criteria", "Start-ups capital Access Strategies", "Incubators" and "Italy Start-ups". The total number of literature resources used in theoretical review is 80 references. In the literature review the total number of literature sources is 91 specific references.

The analysis of academic literature has shown that start-ups influence many academic fields. The author's intention is to give a complete view of start-up ecosystem, starting from their organization to capital attraction. As addressed in the "Introduction" chapter and after analysing several papers, this work aims to understand the start-ups approach in attracting investor and collecting capital.

To reach this goal an overview of this young business is presented in the first subchapter to clearly understand what they are and what they do. The section continues with a presentation of possible investment sources, which start-ups fight to reach. However, the process of capital attraction does not end by getting in contact with investors, they have requirements and specific characteristic they are looking for, an outline of most important investor criteria is given in "Investment Criteria" subchapter. In the next part, a view of strategies entrepreneurs follow or are suggested to follow from investors is shown, to have some information in order to compare with the results of this research work. During the life of a start-up, one important institution for their functioning are incubators, and it was seen reasonable to give a general view on their role. Finally, since the work is focused on start-ups located in Italy, an overview of start-up situation in Italy was provided to better understand the focus group in which study is concentrated.

2.1 Start-Ups

2.1.1 History of start- up Terminology

"A start-up" is a term that formed in the late 1970's in the U.S. and was widely used in the late 1990's as part of technology and internet propaganda that gradually exploded around the year 2000. Start-up (start-up company also known as upstart) concept has arisen to explain and define a new or early phase business which has a higher growth potential than usual companies due to the evolving technology and since 90's also due to internet as high growth factor. Such start-ups were known as internet or more generally technology start-ups, and still the word start up sometimes it is referred as "internet start-up". The term was required and developed by the venture capital industry, which used the word to distinguish this particular type of new growth potential companies from standard entrepreneurship, typically new businesses and small businesses, where the key factor for this distinction was the "scalable rapid growth potential". (Commons)

Later VC started to consider and validate other aspects, amongst which, a key separator for targeting possible investable start-ups, the formation of a development team with complementary skills has become one of the key factors for investment (if not “the one”).

“Ideas are cheap. Execution is everything”, Chris Sacca invests when he thinks he has found the right team for the right company, because it is all about the people.

While this definition progress is ongoing, there are quite a lot of ideas about what “a start-up” is, there is already sufficient common and shared “consensus” to determine the definition of a start-up. Compared to much older concepts of “innovation” and “entrepreneur”, start-ups are starting to be understood as well. (Commons)

2.1.2 Start-up Definition

A start-up is just a “new” company, a recently formed firm. For many years business schools around the globe have come up with a new academic interpretation of what a start-up really is. The definition, which is mostly accepted and embraced by business schools, was defined by Steve Blank, an entrepreneur and professor at business schools like Stanford, Berkeley and Imperial College. The definition is as follows: *a start-up is “a temporary organization designed to look for a repeatable and scalable business model.”* (Airetuo, 2018)

Other potential definitions of “start-up” are listed below:

"A start-up is a business that works to solve a problem where the solution is not apparent and progress is not assured," says Warby Parker's co-founder and co-CEO, Neil Blumenthal. (Robehmed, 2013)

"Start-up is a state of mind," says Homejoy's co-founder and CEO Adora Cheung, one of the Hottest U.S. This is when people enter the market and already make a deliberate decision to leave stability in return for the chance of rapid growth and the thrill of making things happen". (Robehmed, 2013)

“A five-year-old company can still be a start-up," writes Paul Graham, the founder of Y Combinator. "This way the ten-year-old will begin to grow."

Founders claim that a start-up is a community not determined by numbers, and that at all ages and sizes, it will still remain a start-up.

"It stops being a start-up when people don't feel the value of what they're doing," Seat Geek co-founder Russell D'Souza, a ticket search engine, said. "I don't think the turning point is a certain number of employees but an environment where workers would be able to individually and collectively make the company succeed."

"But with every new employee and every year that passes, maintaining the diverse culture in a business gets much harder," noted Matt Salzberg, CEO and co-founder of the dinner set delivery service Blue Apron. (Commons)

Finally, when you achieve revenues of less than \$20 million, have less than 80 personnel, and remain firmly in control of the company you founded, you are probably running a start-up. Similarly, if you've just set up a small for-profit business and you're trying to get it big enough to take over the world—even though you're only operating from your bedroom—you're probably a start-up founder. (Robehmed, 2013)

A start-up mindset can include existing companies as long as they perform with the same attitude on which they were created. Here are key principles that characterize start-ups.

- **Fast-paced** – whether it is quick decision taking and shifting goals or rising and expanding business in a limited amount of time, things are changing fast at start-ups.

- **Founders**—while the team will have a major influence, a start-up is the creation of its founders, normally one-three individuals who are vital to the operations of the company. The developers have a vision that they want to function, to bring change in the market and are dedicated to making it possible, mostly due to a private relationship.
- **Funding**—start-ups tend to be self-funded or gain capital from angel funding or venture capitalists. What distinguishes these from other funding sources is that there is also partnership between investors and founders. This is highly probable with angel investors who can also provide some mentoring or advice to new ventures.
- **Global view**—one of the main differences between a start-up and a small business is that a start-up has a concept that can be implemented and marketed internationally. A small business, by comparison, is limited to a specific area or sector. That is why many start-ups are tech companies which create products or services that function through internet.
- **Growth**—while a start-up can start the cycle with one-or two-person in a small scale, their aim is to seek for expansion and scale fast to reach a large market.
- **Limitations**—even if it is resources, size, time (or a combination of all three) start-ups are lean operations.
- **New** – while the concept of start-up business has evolved over time, there is still acceptance that start-ups are a new business. How “new” ranges – in general an enterprise would be called a start-up in its first few years of operating (up to a limit of about five years).
- **Problem-solving** – one of a start-up's primary objectives is to solve a problem through a new or improved service or product. This often involves working without a clear path or instructions for success.
- **Registered business** – some suggest you have to be an officially recognised company to be a start-up. Without the presence of the required documentation and business status, it is only a business idea.
- **Team culture** – while there's some discussion about how many group members a start-up should have, it's accepted that it's a small business where each person and the team together have a direct effect on the business.
- **Ambiguity**— it is common within new businesses and especially in the case for start-ups. This often allows exploration to occur, as well as a perception of volatility; stuff can vary on a daily basis. Risk and failure are key to start-ups - so many ideas and concepts are being developed, some will succeed, and others will not. (Cook, 2018)

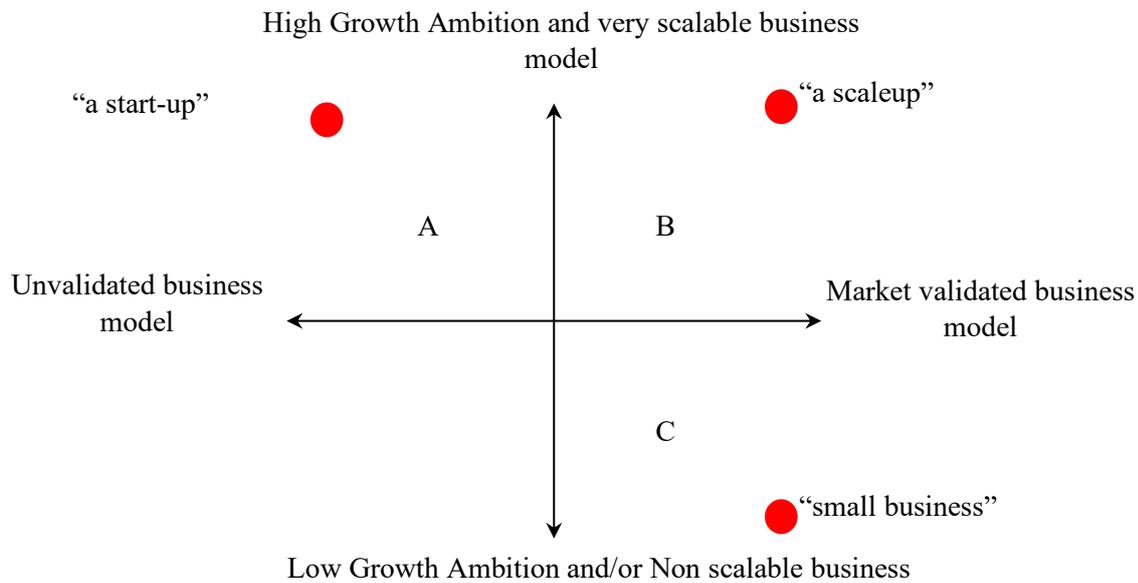
Given all of the above, it's interesting to note that change is key to the meaning of start-up business. There is a nature of change and a temporality, as a start-up may develop or be purchased by some other firm in time. So, it's hard to say a start-up is certainly one thing or another, except to stress the ability to change and be different is the nature of a start-up. In start-ups runs the energy, enthusiasm and sense of possibility, as well as the feeling that anything could happen.

Finally this is a definition that summarises almost all of the above discussed points: “A Start-up is a team of entrepreneurial talent developing new innovations, in identifiable and investable form, , to verify and extract the value generated from innovation - with the intention to develop rapidly with a scalable business model for full impact.”

At the very beginning of start-ups, there was too much confusions between other types of organizations such as SMEs and Scaleups. A graph which clearly shows the distinction between them, because of all above stated start up particularities, is shown in the Figure 1. (Commons)

A Start-up

A Scaleup



Source: Commons

Figure 1. Start-up vs Scaleup

2.1.3 Start-up Types

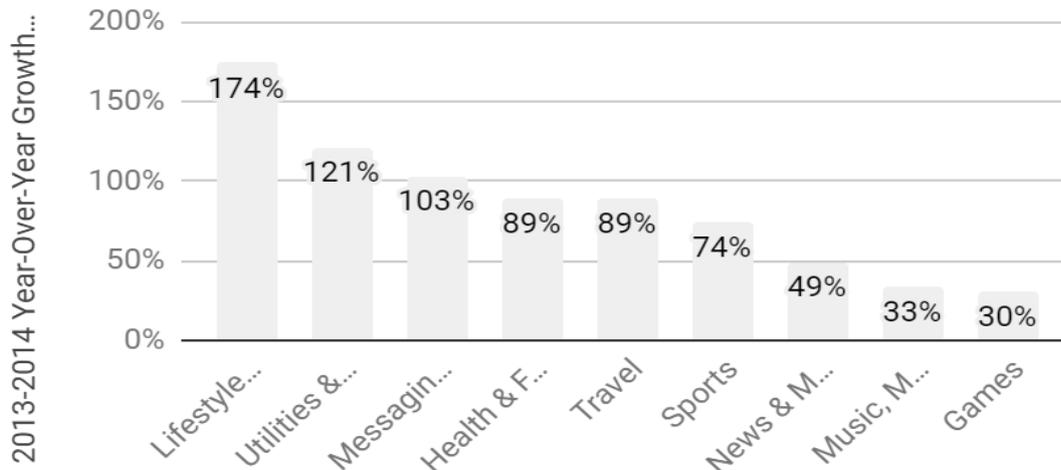
The founders who start these new businesses are all “entrepreneurs”. But there are substantial differences between the individuals involved, financing and strategies. Underestimating those variations can decrease the possibilities for success. Therefore, though there is only one term for "start-up," there are six different types: lifestyle, small business, scalable, buyable, social and large company start-ups. (Blank, 2013)

2.1.3.1 Start-ups lifestyle (Work to live their passion)

Lifestyle entrepreneurs live the life they love, work for themselves, and pursue personal interests and passions. These start-ups are a practice of their profession and sometimes discoveries on how to make life easier and solve problems by creating products and services. These professionals in Silicon Valley are skilled coders or web designers, who are passionate about their work. (Blank, 2013)

Lifestyle start-ups are backed by the importance of technology and internet, mainly by mobile apps. More than 80 percent of the time spent on smartphones in recent years is only to use apps. This increase in the use of mobile apps has created immense opportunities for enterprise customer interaction, eventually converting into revenue growth. (UtkarshTiwari, n.d.) According to data provided by a research carried by Flurry Analytics, the most used mobile apps in 2014 were related to lifestyle and shopping ,utilities and social media. The Figure 2 gives a detailed information about their percentages.

Mobile Use Grows 76% Year-Over-Year (Sessions)

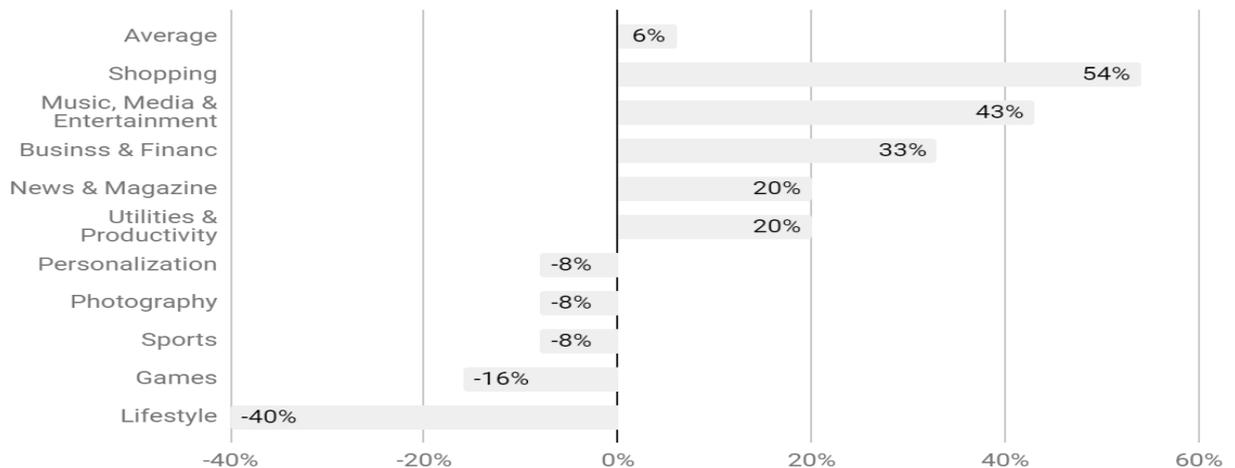


Source: Flurry Analytics

Figure 2. Mobile app usage

However, a more recent research shows that the percentage of lifestyle app usage has drastically decreased with 40%, while shopping continues to lead the charts with an increase of 54%. These data show that the potential for lifestyle start-ups investing in web app development has decreased. New strategies and disruptive ideas are crucial to revive the glory days for lifestyle start-ups. The new research data are shown in Figure 3.

Global Mobile App Session Growth, by Category n 2017



Source: Flurry Analytics

Figure 3. Global mobile app usage by category

2.1.3.2 Small-Business Start-ups (Work to feed their family)

This category includes grocery shops, hairstylists, consultants, layers, travel agents, electricians, plumbers, etc. They're regular people running his or her own company. Small business owners work just as hard as any other large enterprise. They hire local staff or their family members. Most of them are hardly profitable and this type of businesses are not designed for scale- the owners want don't aim to be big they just want to own their business and make a comfortable living for their family. Their only at disposal money is their own savings, and what they can borrow from banks and friends. (Blank, 2013)

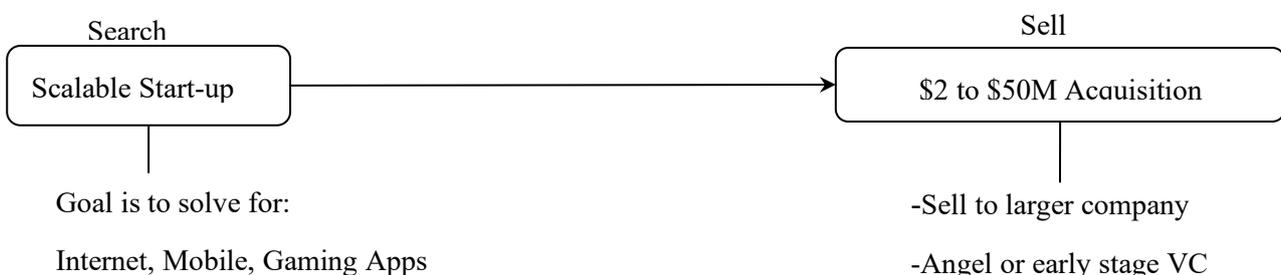
The recent research conducted by The Boston Consulting Group and Qualcomm reveals that by embracing mobile technology, 25 per cent of the largest Small and Medium Enterprises are achieving 2-time growth in revenue and creating jobs up to 8-times faster than their peers. Eighty-two percent of SMEs surveyed in research said that mobile technology gives them a considerable advantage over their rivals, i.e. greater flexibility and efficiency in their operations as well as better customer interaction. (UtkarshTiwari, n.d.)

2.1.3.3 Scalable start-ups (Born to be big)

The latest examples of scalable start-ups are Google, Uber, Facebook, Twitter. The founders have the belief and vision from the very beginning that they will change the world. Their aim is to generate equity in a company that will potentially become publicly traded or acquired, earning a multi-dollar pay-off. Scalable start-ups need venture capital to fund their business models, which means they should be able to attract investments from venture capitalist. They recruit the best and the brightest professionals. They are always searching for repeatable and scalable business model. After finding the right model, they focus on scale and this needs extra venture capital to boost rapid expansion. According to VC Fred Destin, *"Scaling refers to the time in a start-up's life when management and board believe like they can consistently drive growth with trust that the effort they put in will deliver positive and tangible results". It usually happens after product-market fit is identified and the search for a repeatable sales or customer acquisition model has provided enough positive data.* They have the ability to continue to increase their revenues while keeping their incremental costs to a minimum. That's basically why Venture Capitalists and investors only invest in technology start-ups and never in-service start-ups. (UtkarshTiwari, n.d.)

2.1.3.4 Buyable start-ups (Acquisition Targets)

This start-up class is likely to be sold for \$5 million to \$50 million to a larger organization. The entrepreneurs and investors walk away with millions but not billions. There have been several web and mobile app companies acquired off in the last decade, often through Internet conglomerates like Facebook and Google. Figure 4 summarizes information about this process.



Source: Enterprise Development and Market Competitiveness (EDMC)

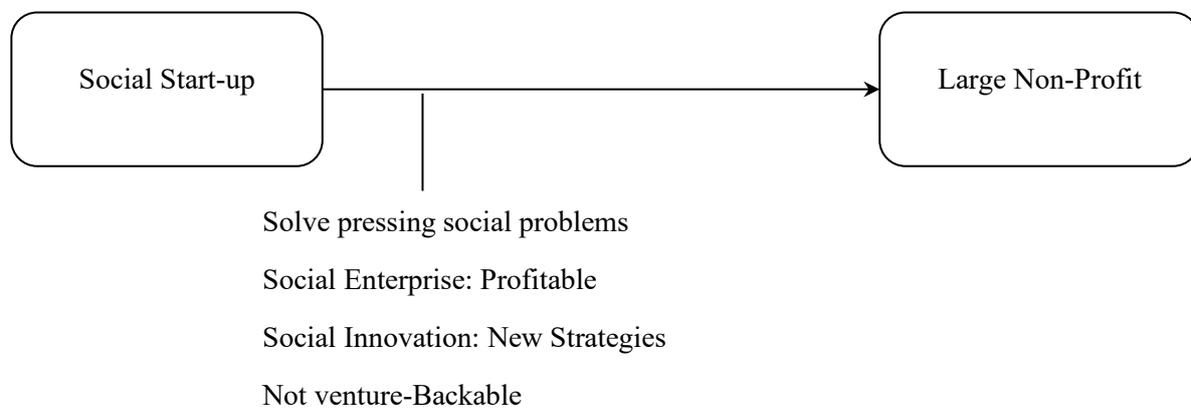
Figure 4. Buyable Start-up

Normally these purchasable start-ups, being in the web niche, have goods that are contingent on device or web development. From scratch they are designing their own products, releasing them and successfully establishing a following for them. It is their quality and performance success that drives other companies to acquire them. As an example, we have Instagram that was acquired by Facebook. (Tiwari, n.d.)

2.1.3.5 Social start-ups

Companies started by socially motivated and committed entrepreneurs inspired to make a difference in their community, are called social start-ups. Unlike scalable start-ups, their aim is not to create market share or profit for the owners, but to make the world a better place. Such start-ups can be structured as profitable (for profit), non-profit or hybrid. Usually, social entrepreneurs require contributions to fund their ventures. Other than donations, charities are relying on a network of collaborating like-minded people to make a difference, i.e. online forums. (Blank, 2013) . Figure 5 are shown main characteristics of social start-ups.

Social Entrepreneurship Start-ups



Source: Enterprise Development and Market Competitiveness (EDMC)

Figure 5. Social Entrepreneurship Start-up

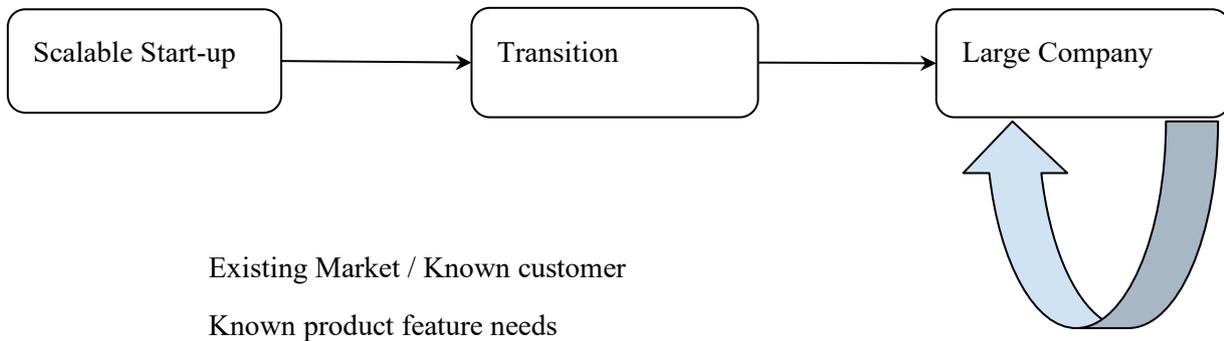
2.1.3.6 Large company start-ups (Innovate or Evaporate)

Companies starting small with a product that is innovative but going on to be known internationally are considered big start-ups. Such companies get very quickly to the end of their life cycle. Therefore, to keep growing as a business they need continuous innovation maintaining (the core product variants) and/or disruptive technologies (new products for new markets). Such companies are self-dependent in the creation of all types of applications, web and mobility. It is one of their core strengths, and therefore continues to adapt and evolve as technology demand and patterns move. Uber, AirBnB and Basecamp are examples of successful scalable companies in the current days. (Blank, 2013) (Tiwari, n.d.) Differences between companies following sustaining and disruptive innovation are demonstrated as well by Figure 6 and Figure 7.

Large Company Sustaining Innovation

Innovate or evaporate

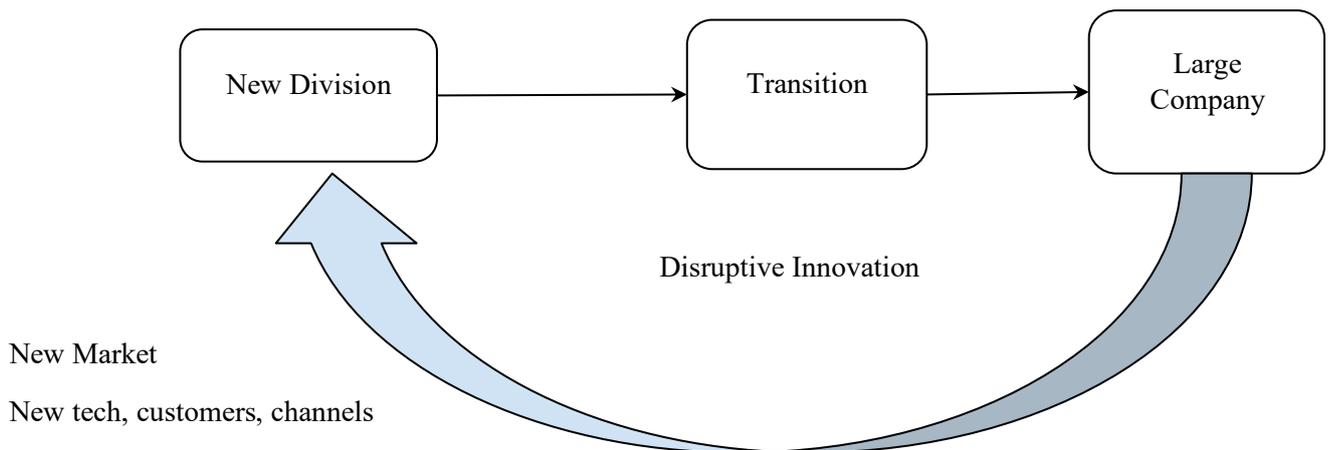
Sustaining Innovation



Source: Enterprise Development and Market Competitiveness (EDMC)

Figure 6. Large company sustaining innovation

Large Company Disruptive Innovation



Source: Enterprise Development and Market Competitiveness (EDMC)

Figure 7. Large company disruptive innovation

To conclude and relate start up with funding we can group in three main types of start-up: lifestyle middle-market and potentially high-growth businesses. Lifestyle companies just enable their creators a decent living. This is the typical small business and this group represents 90 per cent of all start-ups. They are unlikely to receive financial support from external sources and are entirely funded internally. Their estimates for revenues in five years are below \$10 million. Middle-market companies make up for less than 10 per cent of all start-ups. They rise 20 percent per annum and their estimates of sales for five years are \$10-\$50 million. Such businesses are interesting to business angels and are strongly dependent for early growth on bootstrapping.

High-potential businesses cover less than 1% of all start-ups. They rise more than 50 per cent yearly and their expectations for five years are more than \$50 million. They hope to expand to more than 50 workers within 5-10 years and await from angels and venture capitalists' multiple rounds of financing. (Tiwari, n.d.)

2.1.4 Start-up life cycle

The lifecycle model aims to define the stages that start-ups undergo throughout their lifetime. The model describes the operations, organizational resources and entrepreneurial characteristics, the milestones and the actors through which start-ups can obtain the necessary resources, to develop entrepreneurial characteristics, achieve measurable outcomes (achievements) and conquer probable problems, challenges or just keep on evolving effectively. Reaching a milestone is a critical moment for each start-up, as it signals the shift to another state. Each start-up goes through lifecycle stages aspiring to become the next Uber or Amazon. Every single step of this life cycle poses unique challenges that can build or break any company. (Passaro, Quinto, Thomas, & Rippha, 2016). The phases of start-up life are as below:

- Idea creation

This is an important time when the idea takes specific form and then the groundwork for making it a reality is laid out. The company's priorities are pretty simple from a business perspective, because there is no income with very little outside investment. The functions of the founding members are defined, and basic legal structure and tax planning and enforcement are put into practice. A corporate lawyer, a tax consultant and a bookkeeper are likely to be the key experts needed and it's never too early to start searching for the advisors you will need later, though.

- Screening

Here the idea eventually takes shape: the company hires developers and generates quick money and continues to defend intellectual property (IP). Which means the burning of cash that's in short supply. Therefore, the management of cash burns is important, as is the preparation for the company's future, including remuneration plans and recording of capitalization tables. An outsourced CFO is a great option for most businesses to complement the solicitor, tax adviser and accountant at this point. In many cases, a specialist IP lawyer will also be required.

- Customer Engagement

If you have already got this far, congratulations! A lot of people, besides you, believe in your business. Early angels may want a seat on the board and may be helpful in reaching milestones. Early clients have already entered the picture. Initial revenue generation would make sales tax and B&O tax a concern. As the team expands, rental space may require an actual estate broker, and the business will need great benefits and insurance to compete for talent. The business strategy is taking shape and more grants may be needed, often necessitating a valuation expert.

- Scaling

As the product gains traction, the company is growing rapidly. This is out of start-up stage now and it's on the way of becoming a "real" company. The customer base grows substantially, requiring extra resources for customer relationship management (CRM). Larger venture capital investors enter the scene and join the team. It's a good time to move from an outsourced CFO or manager to a full-time staff. The company's accounting requirements become more complex, needing a more experienced consultant—especially when selling across national or international borders. Banks and VCs also seek external audits and extend the partnership of your accounting firm.

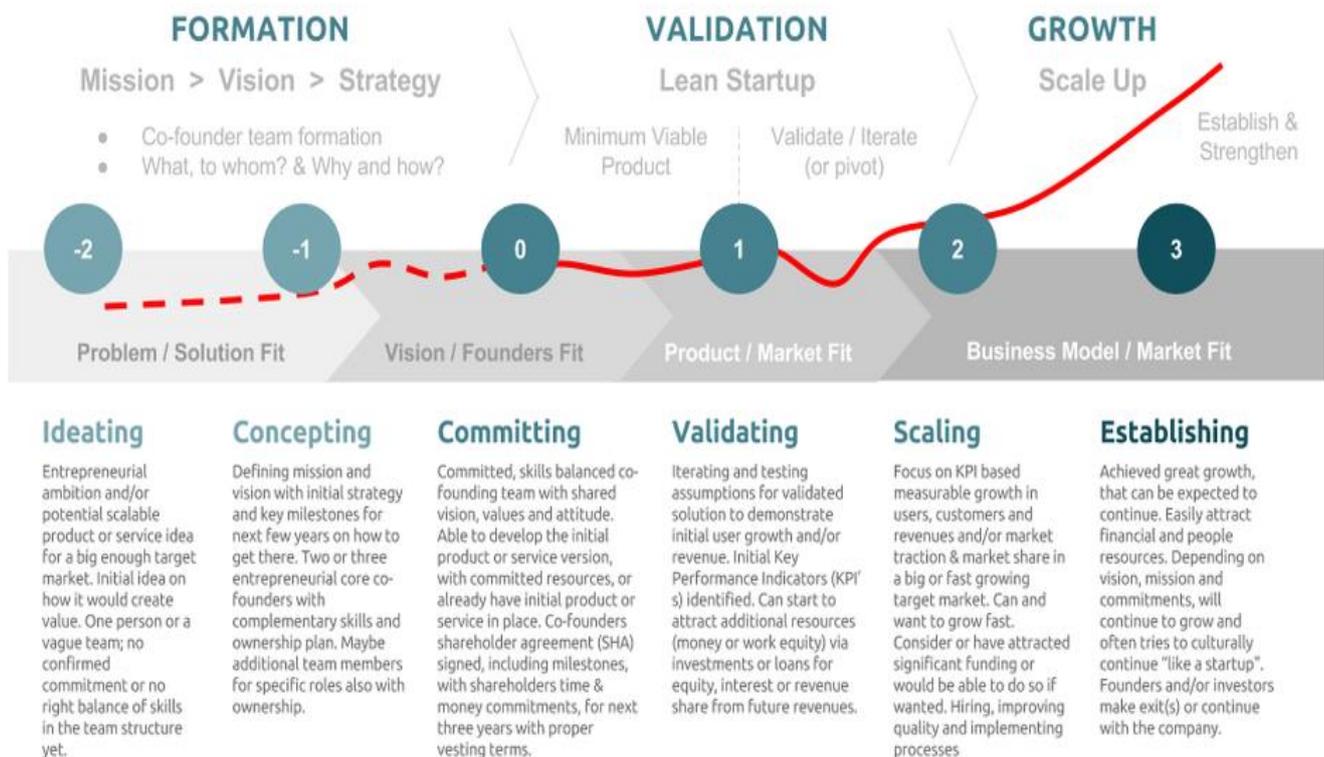
- Profitable Growth

At this stage, the business has the same issues as large enterprises, including the creation of internal controls, the management of acquisitions and the rivalry for talent. It might need to implement enterprise accounting software, rethink its compensation strategies, and most likely recruit full-time tax specialists.

- Maturity / Exit

If all goes according to plan, the company will be ready for an exit that will offer a big payout that everyone wants. General counsel and a bank are likely to participate in this procedure, and the managers of the company will need personal tax advice to increase their revenue profits.

By looking at these processes from the start and during the growth process, businesses can slowly build a solid base for success instead of spending time and effort playing catch-up, just as they gain traction. It's essential to have an expansive perspective of where you're supposed to be going— and it's just as important to know how you're intending to get there. (Medlin, 2016) The start-up lifecycle summary is also presented in Figure 8.



Source: Hackrenoon (Guignard, 2017)

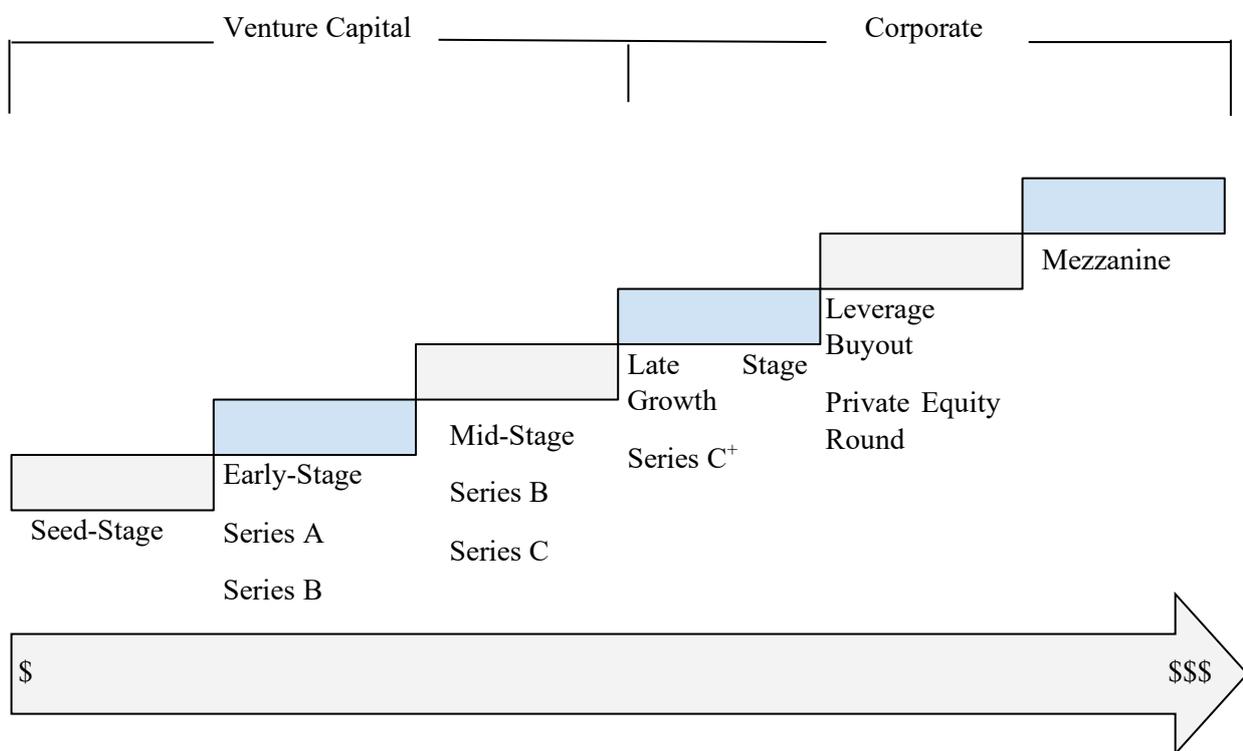
Figure 8. Start-up life cycle

2.1.5 Capital Funding Rounds

Start-up financing takes place through a series of round stages. Usually, every round targets a particular kind of investor, for various sums of cash. Throughout growing point investors have different perceptions of entrepreneurs and their start-ups. There are usually four start-up funding rounds in a start-up that needs to

collect outside capital: Seed, Series A, Series B, and Series C. Each round is structured to provide enough capital for entrepreneurs and their small businesses to get to the next milestone or level. Although there are often exceptions, this 'runway' can be as short as 12 to 18 months between rounds, but some entrepreneurs are pushing it up to 6 months.

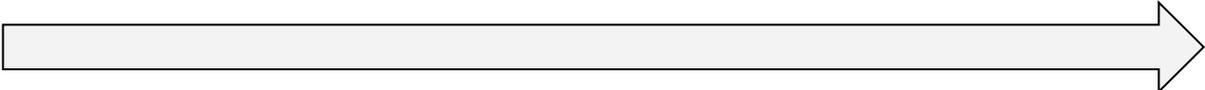
Within each round entrepreneur are searching for money in their business to sell equity, which they will use to step up. These investment rounds offer incentives for outside investors to invest cash in a-business in return for the company's equity, or part ownership. If you hear discussion of funding rounds for Series A, Series B, and Series C, these words apply to this phase of developing a company through outside investment. Convertible notes are often commonly used in earlier funding series when investors face more risk or when entrepreneurs need a bridge round to expand their current path to the next investment round if there is insufficient momentum to complete an equity round. (Cremades, How funding rounds work for start-ups, 2018)



Source: Crunchbase

Figure 9. Start-up financing rounds

Figure 9 and Table 10 provide the financing rounds of a start-up. Each type of financing round is accompanied with information for the start-up development phase, type of investors in different rounds and after capital collection, it is shown how start-ups use this money to finance growth.



Type	Pre-seed	Seed	Series A	Series B	Series C ⁺
Investor type	<ul style="list-style-type: none"> -Same as seed investors -Friends and family -Early-stage angels -Start-up accelerators 	<ul style="list-style-type: none"> -Angels -Early-stage VCs -Accelerators 	<ul style="list-style-type: none"> -VCs -Super angels 	<ul style="list-style-type: none"> -VCs -Late-stage VCs 	<ul style="list-style-type: none"> -Late-stage VCs -Private equity firms -Hedge funds -Banks
Typical Company Stage	Pre-Product	<ul style="list-style-type: none"> -Signs of product-market fit -Some traction 	<ul style="list-style-type: none"> -Revenue growth -Marketing becomes increasingly important 	-Ability to scale	-Large-scale operations
Raise Typically Spent on	<ul style="list-style-type: none"> -Hiring critical team members -Developing prototype products 	<ul style="list-style-type: none"> -Fuels growing beyond funding -Funds product development 	<ul style="list-style-type: none"> -New sales and marketing processes - Understanding ideal customer 	<ul style="list-style-type: none"> -Expensive hires -Expands into different market segments -Experiment with different revenue streams 	<ul style="list-style-type: none"> -Moving into new markets -Fuel acquisitions

Table 1. Start-up financing Rounds

2.1.6 Importance of start-ups

Entrepreneurial activities act as the economic workhouse by contributing employment, stimulating creativity and bringing value to the economy. (Victor Hwang, 2019) Ilmakunnas and Kannaiainen found that the relationship between economic development and entrepreneurship has a U-shaped form. (Pekka Ilmakunnas, 2000). Johnson studied entrepreneurship economic theory and recognized that social and cultural change supports entrepreneurship. (Koellinger, 2008) He realized that entrepreneurial risk can be reduced in highly

evolved economy by new job creation for the self-employed person and other people that work in this entrepreneurial activities. Koellinger studies state that as individuals' economic conditions drop, a decline in good jobs is caused, leading to self-employment. (Dess) Entrepreneurship is fundamental for national benefit because it is of immense importance to the economy, as entrepreneurs perform functions like creativity, innovation and technology. (McDougall) The requirement of transition to knowledge-based economy is a consequence of entrepreneurial activity development and growth of small enterprises in an economy.

Start-ups may be small business but can play a key role in economic expansion. They lead to more jobs, which means higher employment, and higher employment means a better economy. Not only that, but entrepreneurship can also lead to economic dynamism by encouraging creativity and fostering rivalry. New entrepreneurs will come up with solutions and ideas, which are much necessary to drive innovation and encourage competition. "Transformational" start-ups have a huge influence in the economy. Such start-ups have the most economic impact, with the goal of becoming nationally and internationally known. According to studies from Kauffman Foundation, transformation start-ups have been introduced at a faster rate in recent years, but still have a way to go. These high growth firms constitute 15% of all enterprises. But they do contribute a calculated 50% of the overall job creation. These young companies compared to older ones invest more in research and development (R&D).

This optimistic view can be seen in entrepreneurial firms' role in political culture. The success of entrepreneurship has been noticed by many leaders. President Obama has highlighted how "Small businesses have created 65% of all new jobs in America... And more than half of all Americans working in the private sector are either working in or run a small company. Such businesses are the source of growth in jobs, in America. They fuel our prosperity..." (Obama, 2008) President Bush II similarly has highlighted "We often think of pioneers as those hardy settlers who tamed the American frontier... However, small businesspeople also stand among our nation's greatest pioneers. They, too, are men and woman of vision. They, too, have eh courage to take risks the willingness to make their ideas work. Small entrepreneurs and women, industrious and self-reliant, consistently lead the way in developing new technologies and goods and generating economic opportunities for all Americans. Indeed, small business is the lifeblood of free enterprise system. Many employees find their first jobs and employment within this vitally important area of our economy. Small business account for two out of every three new jobs created. (Bush, 2009)

This position is the same in other countries in Europe and Asia. Here are the ways in which start ups disrupt the economy and push it to adapt and change, moving technology in higher levels.

- Advanced Technology

Start-ups concentrate more on disruptive technologies and cutting-edge innovation. Free from multi-layered corporate bureaucracy, entrepreneurs are more flexible, capable of turning concepts into a product and optimizing it to consumer with rapid interactions in decision making. The high stakes inspire the workers to do whatever it takes and work hard to be successful.

Giant companies like google and Microsoft purchase start-ups and use their size and distribution channels to enhance creativity and boost sales. However, this process is criticized by Vivek Wadhwa a member of Harvard's Labour and Work life program, who argues that "when technology's top guns join these companies, they seem to make smaller impact than those that don't get hired". (Wadhwa, 2010) Then he suggested that entrepreneurs need to be equipped with seed funding in order to provide more technological innovation for the economy.

- Open new markets

Start-ups create new markets or replace old markets entirely by developing goods that change the world. Start-ups create massive advantage over traditional firms, fostering competition and disrupting the growing

economy. Not all start-ups do succeed, though. The main reason of that is the increasing power of established companies. (Surowiecki, 2016)

- Boost production of goods and services

Start-ups are characterized by high technology. This is boosting services and goods production. High growth companies are disproportionately young and contribute disproportionately to production and productivity growth. Start-ups were found to generate more revenue with equal amounts of capital inputs than older firms.

- Increase employment

Start-ups create jobs. These high growth businesses add 25 plus percent to employment. Existing companies were net job destroyers from 1977 to 2005, losing 1 million net jobs per annum. New start-ups added an average of 3 million jobs in their first year. In a 2017 study from the progressive Policy centre, in the places where start-up operation is large, the growth in private sector employment is considerably higher. In comparison, regions with few start up initiatives are witnessing less than half the increase in employment. (Wadhwa, 2010)

- Direct local impact

Start-ups have a direct influence in the places they are positioned. This can be proved by seeing how Infosys changed Bangalore, how Alibaba influenced Hangzhou, how Microsoft changed Redmond and how Google changed Mountain View in California. All these firms started out small, but as they expanded, they changed the cities they performed in. They enhanced employment trends providing both skilled and young educated professionals job opportunities. This led to an increase in graduate inflows and the transfer of qualified professionals from different towns. (Didar, 2016) (Entrepreneurship is key to economic growth for cities, 2018)

2.2 FUNDING

2.2.1 Finance importance for start-ups

In these days, a brilliant idea and a solid will to succeed are simply not enough. If you are an entrepreneur looking to expand and scale, financing your company might be essential. Surveys show that lack of funding is one of the most common reasons for the failure of small businesses. On the other side, Apple, Google and Amazon all started out as small start-ups and thanks to investment, turned to business giants. Taking funds to develop your new venture is not “a piece of cake”. However, today's start-up companies have numerous options to obtain the funding they need, including venture capital, angel investment, or crowdfunding as one of the relatively new opportunities. Guidance is also provided by accelerator start up programs. Today particularly in technology sector, the saying “time is money” is more a fact than ever. In general, an entrepreneur with an idea needs financing to move on, in no time. (Montes, 2017)

Available evidence confirms that capital of various types is significant for the formation of new businesses. A wide range of studies confirm the value of capital for entrepreneurs, although the different types of obtained capital (i.e. bank loans, credit, venture capital, and personal wealth) vary considerably. (Bricker, Henriques, Krimmel, & Sabelhaus, 2016) Credit accessibility has been linked to greater success in new enterprises. Research from companies in their fourth year of life shows that as new businesses expand, the need of external debt funding is increasing. (Brooks, Huang, Kearney, & Murray, 2014) An analysis of young companies involved in accelerators which give financial and nonfinancial help, found that two years after raising capital, financed firms generated 30% more revenue growth and 50% more employment growth compared to firms

that couldn't raise money. (Brown & Earle, 2017) In addition, credit is relevant at each point of the new business development. (Brush, Carter, Gatewood, Greene, & Hart, 2009)

Extra, to their direct influence on individual companies, capital investors may play a great role in societies by creating structural and industrial effects that foster entrepreneurship. An analysis of 59 accelerators between 2005 and 2012 found that the introduction of an accelerator in a metropolitan area brings regional seed earnings and early stage funding, along with a jump to 104 percent in the number of VC investments. An increase of 1830 percent in the volume of seed and early stage deals and an increase of 97 percent in the number of individual investors. (Burhouse, et al., 2014)

Bank deregulation increased the level of capital in systems, boosting entrepreneurship activities. (Carter, Wilson, Shaw, & Lam, 2007) One research showed that deregulation was directly related to an increase in the amount of small firms, while one other study concluded in mixed regional outcomes. (Carter & Rosa, The financing of male and female owned businesses, 2006) The contribution of capital suppliers in the system can also assist the community with signalling and role model effects. VC support acts as a quality symbol, confirming the firm's integrity and generating more possibilities. It can also lead to a process of repeated entrepreneurship, spin-off opportunities, technology and knowledge transfer and a wider reinforcement of entrepreneurship activities in our society. (Chatterji & Seamans, 2012)

Except the details given in the previous paragraphs financing has direct relationship with start-up performance, some other main reasons why financing is important and why start-ups struggle to get capital at early stages are discussed below:

- Allow start-ups to grow on strong basis

Often it takes more money and a bigger workforce to turn initial idea into a functional product. This means the need to hire more people, recruit field experts, invest in production costs and keep operations running efficiently in the development phase to put the idea into life.

- Gives opportunity to increase market presence in little time

It is crucial to reach as much of the market is possible when disruptive ideas are well received in the market. To cope with other strong players in the market the increase in marketing and sales activities is necessary and this can only happen on a pretty penny, again. (Montes, 2017)

- Asset creation

The main long-term goal for business owners is to increase production by raising business assets. To full fill this need, the finance sector helps businesses to have a solid investment strategy that is not conditional on short-term finances. Investing in things like property, vehicles, and machinery certainly would raise the scale of production. But it'll only happen with smart financial management. For the most part, the asset development issue goes as far and large as keeping up with technological advances that will mean success for the business's future. (Importance of finance to your business, 2019)

- Additional value from investors

The initial reason to contact and get investors for start-ups is the need for capital. But investors, can contribute to start ups not only monetarily but also in network creation and initiation of new deals with other companies thanks to their connections. Star up business success is also in investors' interest, so they get involved in start-up activities and provide advising, coaching, network and previous experience.

- Increase market and potential future investors' attention

The fact that start up receives funding from a venture capital, an angel investor or from crowdfunding indicates their readiness and preparation for the future. Funding increases credibility and attracts market interest. It adds value to company and shows to potential partners and clients they have perspectives for the future and are worthy to be considered. (Montes, 2017)

- Manage unavoidable risks

Running any business means taking risks. Even so, it isn't enough to think of established business as a risk. Natural processes along with human mistakes can be the main reasons start-ups experience substantial loss. Before that time comes, the financial management strategies should assist in creating a contingency plan that will make the company ready for the management of unforeseen risks. The money and previous experience of investors make this process easier and successful. (Montes, 2017)

2.2.2 Sources of finance for entrepreneurial activities (start-ups)

Financing is the most important aspect of the new business management process. Getting the right funding generates sustainability, positive cash flows and eventually a profitable business. The investment can occur at any level of the company development. Finance is needed at different stages for different goals, at the beginning it is necessary to start up, and later for business growth and further expansion. (Watts, 2015) The financing that a start-up can get relies on its long-term prospects.

In its initial stages, raised capital for a start-up comes from internal sources. The founders ensure the early stages capital, together with support from family and friends (3Fs) resources, the company also counts on bootstrapping and business alliances. As the firm develops and requires more money, external funding sources will be required like, bank loans, government-sponsored programs/grants, professional investors (business angels, venture capitalists, corporate investors), IPO(initial public offering) and equity markets. (Markova & Mircevska, 2009)

2.2.2.1 Internal sources of financing

2.2.2.1.1 Founder (Owners capital), Family, Friends and Fools

These include cash savings from the owner, as well as funds collected from family and friends, also known as "love money". (Markova & Mircevska, 2009) Firstly entrepreneurs try to survive with their money, effort and hard work. Contributions from family and friends can be a perfect way to raise seed money in order to get business off the ground. This category can also be a useful resource for rather long-term investments, driven by trust and encouragement than by specific investment returns. Such close groups usually involve people who develop a strong affection to your brand—or, to you. Investments are well documented. In general, the parties involve in signing an agreement, acknowledging the risk and specifying that they may not get their money back. (Type of investors, 2015) This is the "very first tier" of investors and is sometimes referred to as "fools" because they put their money in start-ups, even though all data indicates that a large number of start-ups fail during the first three years of business. Before heading to bigger and more powerful investors, it is critical that the start-ups acquire upfront investment. (Calopa, Horvat, & Lalic, 2014) This implies that the entrepreneur trusts in his idea, and that his family and friends are also willing to take the risk and engage in their business proposition. Possible risks of such funding are tensions that may happen in the family or among friends if the company fails in the end. (Calopa, Horvat, & Lalic, 2014)

2.2.2.1.2 Bootstrapping

Bootstrapping means starting lean and without the support of external funding. This means keeping to power growth from the business-generated cash flow. (Cremades, The Pros and Cons of Bootstrapping Startups, 2019) Bootstrapping is very innovative resource creation and use, without gaining capital from common sources or borrowing money from a bank. There is a heavy dependence on: internally derived retained earnings, credit cards, home mortgages, and advances from the customers. (Markova & Mircevska, 2009) Bootstrapping is supported by to different approaches, such as trying to minimise the cost of resources acquired and organise the business in the best possible way to avoid capital need.

Advantages of bootstrapping start-up are remaining 100% in control of your own shares and avoiding ownership dilution from multiple round fundraising. Bootstrapping makes possible to have complete control over decisions and management direction. There is no pressure for exit and entrepreneurs can keep their business for their lifetime. It increases the self-confidence of start-ups and gives the sense of accomplishment, gives the chance to say, "I did all of this"! Bootstrapping allows start-ups to rapidly build a business model that actually works and that can give positive cash flow and immediate profits. From there it is possible to build on and scale everything else. Start-ups having to operate under capital constraints become more flexible, creative and efficient. (Cremades, The Pros and Cons of Bootstrapping Startups, 2019)

Disadvantages of bootstrapping are related with different obstacles in the process of start-up development, difficulties not calculated such as valley of death can cause the need for money and if not financed externally can decrease the survival chances and lead to failure. Bootstrapping may dwindle the growth potential because of lacking market visibility and publicity, also less passment of resources needed to focus on product or service enhancement. By only bootstrapping start-ups lose the opportunity to get top level help which can be brought by deal makers, contributors, board members who have connections and keys to sizeable sale channels. Bootstrapping puts more pressure and responsibility on entrepreneurs, who have to work harder and handle more tasks, because they have less budget to recruit professional talents. Being so overloaded entrepreneurs have time only to focus on primary tasks and neglect system organization, documentation preparation which can result in big concerns later. Focusing to much in one direction sometimes let's go of good business opportunities. (Cremades, The Pros and Cons of Bootstrapping Startups, 2019)

2.2.2.1.3 Strategic Alliances

Strategic alliance is a mutual agreement between two or more firms for the common benefit of all businesses involved. The concept is that each engaged entrepreneur or legal entity adds something to the partnership that makes it possible for all parties to have a greater chance of close-term success than the participants might accomplish independently. Although one company may be able to invest in another to grant access to products and services faster than it can build the same for itself, the more probable scenario is one in which two businesses with complementary resources collaborate to boost prospects for long-term revenue generation. (Harkins, 2017)

Even though business alliances are considered as a financial option for start-ups it should be emphasised that most strategic alliances typically do not involve direct investment. Instead allow an entrepreneur to reach first projections or to develop the first products required to initiate or expand a business. The aim of a strategic alliance as a source of funding is to encourage new opportunities, to increase the prospects of cash flow, or to get a business off the ground in the case of a start-up. The first step to ensuring the funding required for long-term progress would be to identify and align with the strategic partner.

The motivations for creating a business alliance are: market penetration, time-to-market growth, use of sales and marketing platforms, regional expansion, access to client lists, building product reputation, limited resources to operate alone, client demands, process improvement, economies of scale, joining forces vs.

competition, acquiring business experience, and others. Business alliance members are identified via intensive search based on knowledge of the industry, professional connections, sector channels and, lawyers, exhibitions, auditors, bankers, colleagues, investment forums and others. (Markova & Mircevska, 2009)

Strategic alliances are challenging especially among start-up projects. The main challenges tend to be a problem of finding appropriate cooperating partners, a failure to measure the alliance's positive and negative aspects properly, the difficulty of correctly structuring the partnership and the concern that collaboration could result in business expropriation. (Hsu, Venture Capitalists and Cooperative Start-up Commercialization Strategy, 2007) In addition, certain alliances can present problems to future investment financing process if investors are in disagreement with other alliance partners. (Ozmel, Robinson, & Stuart, 2013) Though, if entrepreneurs are committed to such partnerships, the help of professional business consultants, lawyers, and accountants will easily resolve such obstacles. (Harkins, 2017)

2.2.2.2 External sources of financing

2.2.2.2.1 Angel Investors

Angel financing is an informal direct funding market where investors can directly finance through an equity agreement in small firms or start-ups. (Tariq, 2013) An angel investor or angel (known in Europe as a business angel or an informal investor) is a high net worth person who invests directly in the potential entrepreneurial businesses, typically in return for ownership equity. Most angels are business professionals, corporate executives and have previous successful entrepreneurial experience. (Type of investors, 2015) The name "angel" originated from the trend of wealthy individuals who invested in Broadway productions in the early 1900's. (Markova & Mircevska, 2009) The average age of angels is 47. Most angels invest close to their location, and in amounts which don't pass hundred thousand dollars. They are long term investors and normally expect return in 5 to 7 years. They want to see a return which is proportional to risk they are taking and assistance they are giving.

Business angels are investors who support entrepreneurs to transform their business ideas into reality. Business angels also contribute by sharing knowledge, expertise and financial resources. Business angels' greatest quality is the so-called "smart financing," which involves offering skills, experience and business contacts, while the most common motives for investment are benefit acquisition, promoting entrepreneurship, market development and generating new value.

A contract specifying the relation between the start-up founder and the business angel as an investor is signed once investment in a company takes place. The agreement usually contains an investment value, the investment duration, the investment price and the company's exit strategy. Business angels play a significant role in the early financing of high-tech start-ups. One motive for this is government support, by tax exemption of their investments. (Sharpe, Cosh, Connell, & Parnell, 2009)

Typically, angels finance companies that have initial stage high-risk capital needed, to operate a 10 to 20-employee business and that can expand to a 50 to 100-employee "middle market" venture with annual sales varying from \$10 to \$20 million. Angel investors seek an approximate annual return of 26 per cent when they invest, and they assume that around one-third of their investments will probably result in a major loss of capital. They fund in angel organisations or on their own and support an average of 3 offers for every 10 considered. The most likely reasons to refuse an offer are inadequate growth potential, overly expensive equity, lack of managerial ability, lack of knowledge about team members and entrepreneurs' skills. Angel-friendly enterprises are those with capital requirements of \$50,000 to \$250,000, with sales between \$2 million and \$20 million over 5 to 10 years, small, existing, private-owned undertakings with sales and profit growth of 10% to 20% per year, exceptional situations such as very early funding of high-tech entrepreneurs who have not produced yet a prototype. (Markova & Mircevska, 2009)

Entrepreneurs can reach angel investors from other entrepreneurs (sponsored by angels and/or willing to invest themselves), organizations (formal matching services, venture capital clubs, angel alliances, private matchmakers, internet services), networks (personal: friends, family,) professional: banker, lawyer), and through publications (lists, newspapers).

The relationship between angels and entrepreneurs is a very interesting phenomena which has many advantages. Business angels not only provide financial support to start-up companies but also "human capital" in the form of knowledge, expertise and skills they possess to help new start-ups as well as small-scale businesses already established in the various scenarios. Another value of angels is that they also assist in "social capital", aimed to strengthen newly formed client contacts. "Business Angel Networks has built a contact platform between private equity investors (angel investors) and venture capital seekers. Business angel networks (BAN's) promote small start-ups with very small amounts of finance to raise equity capital, particularly in their early stages". (Mason & Harrison) The key reason angel investors are a valuable source of funding for start-ups is because they require less control The current informal existence of the angel market could be the best option in the early stage of the new start-up capital needs to reduce the information-related problems. (Berger & Udell, 1998) Another strength of angel financing is that angel investors put their own money in contrast with the venture capitalists who have a legal obligation to care about how they invest. In turn, business angels make rapid investment decisions and business angels need few financial and legal expert due care, resulting in low investment costs. (Mason C. , Informal Sources of Venture Finace, 2007) One of the main findings in the research showed an interesting fact that most business angels tend to invest in start-up companies while they are in their stage of growth, rather than the stage of start-up or creation or even before the company is set up. This gives the corporate angels a diversified view of the funding priorities. However, business angels still play a critical role in providing funding to start-up companies in their early stages. (Freear, Sohl, & Wetzel, 2002)

While business angels can be seen as informal investors, the main disadvantage is that they encounter problems in continues funding, challenge most present on follow- on financing especially when angels lack this capacity. This raises the threat of the absolute suspension of start-up operations. Another limitation is that, business angels provide less financial experience to the newly established company in comparison to other investors Since there are no angel investor databases and no financial information of the investments they've made, finding the most suitable angel investor becomes much more complicated. As a conclusion limited financial scope and market invisibility of business angels are the main disadvantages of these type of investors. (Tariq, 2013)

There is a gap in connection between entrepreneurs and business angels, which leads entrepreneurs to look for passive financial solutions, diverting their attention towards their families, friends, colleagues and business associates. Developing Business Angel Networks (BANs) might help solve this gap issue by connecting both the contributor and the receiver to one single platform. Angel groups have grown They got more influential and organized. These are angel investor groups that are coming together to invest money in start-ups. This helps them to invest more comfortably, with greater check sizes and lower risk exposure. Angel investors dominate in investing small amounts in many firms but in total as much or greater than venture capitalists. Even though issues exist angel investors are one of the most important finance resources for start-ups. (Markova & Mircevska, 2009)

2.2.2.2.2 Venture capitalists

VC are financial intermediaries, which means they take money from the investors (not their own) and directly inject it in business units. A venture capital firm invests only in private firms and plays an important role in controlling and assisting businesses in their portfolio. Their capital is used to finance the company's internal

development and their main goal is to optimize their financial return by exiting out investments by sale or IPO. Venture capital process includes activities such as: funding, tracking and exit. Generally, VC finance second-round and growth capital for later-stage companies for structural reasons: high overhead costs, and high cost of measurement and tracking compared to the size of the investment, long repayment period and potentially high risks when funding in early-stage start-ups. VC investments have historically been focused in two large sectors: information technology (IT) and healthcare. (Markova & Mircevska, 2009)

Companies appropriate for VC investments are: young emerging and middle-market private businesses that go public or merge in 4 to 7 years, have a billion dollar potential, have a full management team with a major competitive advantage, have a gross margin of 40% to 50% or more, have revenue of \$5 million to \$200 million, rise 25% annually, and are able to give back 10 times of the initial investment.

Venture capital funds are generally organized as partnerships the general partners of which act as the company's managers, also they may serve as equity advisors. Venture capital fund investors are identified as limited partners. This group includes both wealthy investors and organizations with large volumes of capital available, such as university institutional foundations, public and private pension funds, insurance firms, charities and pooled investment vehicles, named funds or mutual funds. (Markova & Mircevska, 2009)

The venture capitalists bring with them several advantages. VCs are typically willing to grow and raise their venture value while evaluating their investments, thus the entrepreneur's potential and the start-up firm's managing group's ability to achieve the growth are essential for Venture Capitalists. Venture capitalists in comparison with banks add a lot of value to start-ups in form of experience, skills, and knowledge. Also, they manage to keep entrepreneurs motivated to work since they don't intend to run the business and get ownership of the firm. Moreover, VCs offer social capital to start-up companies, where founders can learn more about new venture capitalists, thus extending the venture networking platform. (Alexy, Block, Sandner, & Ter Wal, 2011) In addition to giving monetary and motivational support, the VCs' professional knowledge significantly reduces the start-ups' failure rate. Experience in the process of performance controls allows them to undertake the right corrective actions. In addition, the experience provided by the VCs in the later stage helps to understand and resolve the company's challenges, thus improving the learning ability of start-ups. (Dimov & Clercq, 2006)

Venture capitalists do have some weaknesses in the way they fund start-up companies. To certain level, venture capitalists demand to have the board of directors in their control as well as business decisions on future equity dilution. (Clercq, Fried, Lehtonen, & Sapienza, 2006) Where there is ambiguity, venture capital will limit the size of investment each time. Globalization of business operations has increased the exposure to economic and political risks, raising the overall uncertainty, which increases the need for the venture capitalists to transfer information. Additionally, venture capitalists adopt new structures, policies, and procedures for administrative conditions that could be perceived as intrusion within start-up firms' activities. Agency problems may rise as venture capitalists mainly invest in established and in late stages start-ups, leading to conflict of interests between entrepreneurs and investors. in this situation VCs can choose intensified surveillance over a period of time that can lead to greater agency risk. This is relevant together with other reasons, like, lack of sufficient data, expertise in decision-making and ineffective effort to reduce costs. (Berger & Udell, 1998), (LiPuma & Park, 2014)

2.2.2.2.3 Crowdfunding

Crowdfunding as the name implies, it is all about getting the crowd involved in co-funding projects and start-up companies by providing capital, feedback and suggestions, through internet and specific platforms. Everyone from individual investors, as well as informal and professional investors can contribute by getting in exchange a reward, equity shares or just give money to raise social benefit as donation. Crowdfunding is

the process of financing a venture or plan by collecting small sums of money from a significant number of people, usually via the Internet. Crowdfunding is a method of crowd-sourcing and alternative finance. (Calic, 2018) Modern crowdfunding structure is based on three elements: the campaign initiator suggesting the idea or proposal to be backed, individuals or groups supporting the idea, and a moderating entity (the "platform") putting the parties together to release the project.

There are a lot of advantages to crowdfunding over traditional methods, from entering into a wider pool of participants to having more versatile financing choices. Crowdfunding creates the possibility to access a great number of different investor types in a limited time. Creating a crowdfunding campaign gets rid of tiring process of preparing very strong to get in front of investors, instead they get presented with an easy package illustrating their idea or prototype and asking for investors. Start-up can spread and market the campaign from start to finish via social media, email newsletters and other online marketing strategies. As both start-up and other media sources track their fundraising performance young business can double down by directing traffic to their website and other business resources. Presenting idea to the public provides a great way to confirm and optimise initial concept, product or service prototype. When potential investors start expressing interest, giving feedback, asking questions or even show dissatisfaction, start-ups can identify missing aspects that could increase the investors potential financing. One of the greatest things about online crowdfunding is the capacity to consolidate the fundraising efforts and streamline them. In creating a single, robust profile to which start-ups can funnel all opportunities and potential investors, by removing the need to actively seek and convince investors.

Based on the type of product or service start-ups offer and their growth goals, there are different types of crowdfunding. The main ones are donation-based, reward-based and equity-based crowdfunding.

- Donation-based crowdfunding

These types of crowdfunding are mostly non- profit with aim to increase social benefit, supporters or donors do not get financial returns. Popular donation-based crowdfunding includes projects such as charities, medical solution and disaster relief financing.

- Reward-based crowdfunding

Rewards-based crowdfunding includes people who contribute to business in return for a "reward," usually in the form of the product or service produced by your company. Although this approach provides a pay out to investors, it is still commonly considered a subset of donation-based crowdfunding because there is no return on finance or equity. This method is popular in platforms such as Fundable, Indigogo and Kickstarter. It allows business owners to stimulate their investors without inducing extra expense or losing stakes in ownership.

- Equity-based crowdfunding

Equity crowdfunding is a mechanism that allows large numbers of individuals to finance start-ups and small firms in return for equity. Investors are offering money to young ventures and getting control of a small portion of that business. Individual investors commit different amounts of money to jointly achieve a goal of funding a company in exchange for equity, which in the case of an IPO will eventually be transformed into publicly traded shares. Crowdfunding usually enters into the life of corporate earlier than VC. The risk as in VC case is substantial, but there is capacity for high returns. The crowd spreads the risk through its many members instead of placing it in the hands of larger investors, as the investment constitutes by numerous investors. Selling investments by crowdfunding has taken different names such as crowdfund investment, crowd equity, investing crowd hyper funding. (What is Crowdfundng, 2018)

- Lending based crowdfunding

Encourages a group of creditors to lend capital to people or companies in compensation for secured debt with interest payments in addition to capital repayments. Borrowers must show creditworthiness and the ability to pay the loan, making it difficult for start-ups.

2.2.2.2.4 Banks

Banks are the most well-known providers of finance after founder's capital of as a source of finance for start-up companies. Banks are financial institutions that supply financing to all types of companies, regardless of size. In any bank-based system, the banks play an important role in enabling the money flow between different investors and entities. Banking finance is essential for start-ups because they seldom receive long-term debt or equity, so they have to rely on bank loans as a main source of financing, because most of the external capital is secured by entrepreneur's own resources, and informal investors via family members, friends and colleagues.

Banks tend to minimize their risk by lending out to companies who have some collateral in disposition. When firms are established and financially stable, it is an important source of external funding for start-up firms. Factors banks stay away from early-stage companies are: lack a track history of reliable data about entrepreneurs, start-ups are highly leveraged, they have too much debt outstanding, they have unpredictable income and cash flow metrics, and if the investment is successful, the bank's profit is only 4-6 percent, but if it fails, it loses all the invested money plus interests. (Markova & Mircevska, 2009)

Many start-ups try to avoid bank loans, as they are generally associated with complicated processes and are provided based on the credit history and characteristics of the company or individual. Since start-ups are typically formed by young people who do not have capital, in many cases, a bank loan is difficult to obtain. Researches indicates a very strong and positive relation between bank loans and start-up stability. Nonetheless, there is a negative unconditional correlation between bank loan and sustainability. The explanation for this negative correlation is the increasing number of start-ups that have earned some other form of funding and at the same time operate on the market effectively. High tech start-ups don't rely to much on banks loan because it is difficult for them to receive in comparison to other sectors.

Bank plays a key role as classical financial intermediaries, fixing the problem for start-up firms by producing knowledge about them, by setting loan contract terms to boost start-up firms' opportunities. (Boot, 2000) Banks gives the chance to start-ups to renegotiate the deal if companies face financial distress and diversify the risks. Banks seek to create long-term relationships with start-up businesses and over time, as the working partnership reaches maturity between the two, leading to lower interest rates and less collateral criteria in terms of additional financial support. Banks could also place migration limits on these start-ups to discourage them from applying for other source of capital. (H.)In fact, banks ensure that star-up companies have available fund without any delays or discontinuities. Another advantage of using bank loan is that, relative to other funding options, they require fewer supervision and control rights. They aren't involved in ownership of companies. (Winton & Yerramilli, 2008)

However, some researchers argue that start-ups entrepreneurs needing capital in early phases still consider bank financing to be very risky. Even though they can manage somehow to find this financial resource the conditions set to provide them are unaffordable for start-ups. Banks need to meet the liquidity funds in order to operate, therefor failure to meet this liquidity need can cause problems for banks, that's why with time they may ask for additional loans and intensify demand for loan repayment. Another problem with this type of financing , exists for firms with net positive cash flow (NPV), which think are successful enough and neglect their commitments to banks, causing them to get annoyed from this situation and since they hold valuable information about this young firms they may leak and cause damages to start-ups.

2.2.3 Other sources of financing

Some other options for funding directly or indirectly start-ups are outlined below.

- Leasing - This is a tool start-up can use to fund machinery they don't need to own. It is often used to fund cars. The equipment is rented instead of purchased, and rental payments are distributed over a number of years. As part of the deal, may also be the opportunity to repair maintenance costs.
- Hire Purchase - This is used to fund equipment purchases. Your company owns the machinery, but capital and interest payments are distributed over a negotiated period.
- Factoring - gives funding against invoices that clients still have not paid for. Usually, when the customer pays, firms obtain up to 85 per cent of the invoice value instantly. (Watts, 2015)
- Bartering - Exchanging products or services as a cash replacement can be an ideal way to run when start-ups have little money. Example: trading free office space by agreeing to serve as the owner's property manager. This approach may also work for legal services, banking, and engineering. (Zwilling, 2010)

2.3 INVESTMENT CRITERIA

As it was discussed in the parts above capital infusions are essential for the development and further expansion of young ventures. Investors in order to engage in financing and support financially start-ups have some criteria they look for. Investment requirements are the specified range of metrics used to determine an investment target by financial and strategic buyers. In general, professional buyers have two groups of criteria: The specifications that are made public to intermediaries such as banks, so they know what the purchaser is seeking for in order to find deals that fit both parties interests; and the requirements established for internal review that help investors determine if transaction is profitable. The most widely stated investment parameters include location, investment size or targeted business, and sector. Many buyers also disclose investment process conditions that may include Management buyouts (MBOs), distressed assets, or succession situations.

First, it is necessary to understand that all investors share one common thing: the requirement for a return on their investment. Even, those Impact Investors who can agree for a lower return rate still need that ROI. In this section main investment criteria of most influential external finance sources are analysed. Banks, venture capitalists or business angels make a financing choice taking into consideration various investment requirements and stressing specific types of information. Different investors have specific requirements that are vital when providing the funds, as well as certain goals that they strive to achieve. A close relationship built on trust is essential for the family, friends and fools. (Callegati, Grandi, & Napier, 2005) Whereas the most important element for bankers is the willingness to repay loans and collateral. For venture capitalists and business angels who are equity investors, financial data (level of performance, capital use) and the market (size, level of competition, productivity) are really essential, whereas the financial side of the business mainly concerns bankers. (Mason & Stark, What do investors look for in a business plan?, 2004)

A more comprehensive presentation of the different criteria set by different capital providers is listed in the Table 2.

Sources of capital	Criteria for accessing funding sources
Family, Friends and Fools	Personal relationship based on trust
Business Angels	Meeting or harmonizing of independent entrepreneurs with investors
	Atmosphere of confidence between individuals and business angels
	Reliable business plan in the eyes of the Business Angel
	Effective management team
	Financial opportunities
	Entrepreneur market awareness
	Exit path presence
	Return on investment (capital gain)
Venture Capitalists	Reliability of business plan
	Business plan with patent technology
	Track record (in previous years)
	Capacity to grow and deliver quickly
	Management team capabilities
Banks	Availability of collateral
	Ability to repay debt
	Business track record
	Professional management
Repayable short-term loans	Innovative nature of business ventures
	Quality of management team
	Business plan
Public funding	New jobs
	Investment in productive tools

Table 2. Investor Criteria

2.3.1 Business angel's investment requirements

This part analyses what angel investors expect when evaluating an investment opportunity, and how their investment parameters are prioritized. The first study to provide empirical insight on angel's investment criteria is Van Osnaburges study. (Osnaburges & S.) Here is Table 3 ,with main characteristics investors look for and the value they put on them. According to this table the main characteristics of start-up that angels want to see in the venture they will finance are: entrepreneurs enthusiasm, expertise and trustworthiness, sale and growth potential , product quality, expected rate of return , market and industry position and synergy between team and investor.

Selected Investment Criteria	Ranking
Enthusiasm of entrepreneur(s)	1
Trustworthiness of the entrepreneurs	2
Sales potential of the products	3
Expertise of the entrepreneurs	4
Investors liked meeting with entrepreneurs	5

Growth potential of the market	6
Quality of the product	7
Perceived financial rewards for investors	8
Niche market	9
Track record of the entrepreneur	10
Expected rate of return	11
Product's informal competitive protection	12
Investor's involvement possible (contribute skills)	13
Investor's strengths fill gaps in business	14
High margins of business	15
Low overheads	16
Nature of competition	17
Ability to reach break-even without further funding	18
Low initial capital expenditures needed (on assets)	19
Investment Size	20
Product's overall competitive protection	21
Low initial cost to test the market	22
Venture is local	23
Investor understands the business/industry	24
Potential exit routes (liquidity)	25
Presence of (potential) co-investors	26
Formal competitive protection of product (patents)	27

Source: Van Osnabrugge

Table 3. Angel Investment Requirement

New studies and researches are continuously done as the market and technology changes, also investor requirements change. The main themes important for angel investors according to late studies are:

- Solid Return

Angel investors seek for a better return on their investment than they would get on the stock market, but this aim correlates with a high level of risk. Just 40% of Angel investment exits in 2017 generated more capital for investors than they invested. (Who are American Angels? Wharton and Angel Capital Association Study Changes Perceptions About the Investors Behind U.S. Startup Economy, 2017)"For every dollar an angel puts into a business, he or she wants to take out seven dollars in seven years, after taxes," says Allan Riding, a leading angel investment specialist and professor at Carleton University. (Ward, 2020)

- A strong reason to invest

For angel investors, the three general types include the economic, the hedonistic and the altruistic, each with its own motivations for investing. While the thrill of developing something new, innovative, or enjoyable attracts a hedonistic angel investor, an altruistic angel may be most concerned with serving and supporting to his or her community. Economic or entrepreneurial angels chose to invest in a larger number of firms, involve on more active roles in the firms they invest in, and as a result receive higher returns. (Who are American Angels? Wharton and Angel Capital Association Study Changes Perceptions About the Investors Behind U.S. Startup Economy, 2017) In general angel investors pursue the excitement and challenge of

expanding new firms, and effectively getting their attention would require knowledge of their investment background.

- A Good Business Plan

Angel investors search to see a business plan that's both detailed and reasonable, involving financial projections, extensive marketing plans and target market information. They look for a clear vision that gives information on how the company will develop and stay competitive. (Ward, 2020)

- Business Structured for Investment

Although some angel investors offer a company direct loans, more than half are seek for ownership. This implies that a company needs to be organized to enable investment and owners should be willing to give up a certain level of control in return for money. The majority of angel investors require a structured shareholder agreement. (Ward, 2020)

- The Chance to Be Actively engaged

Most Angel investors plan to devote their time actively to any company they invest in. This could be by serving as an advisor to the leadership of the organization, sitting on the board of directors or taking an active position as the firm's manager. This extra contribution is a way to help guarantee your investment returns, and a note that these angel investors pursue new knowledge expertise and professional connections through the companies they are funding. (Ward, 2020)

- Enthusiasm, Passion

The entrepreneur's passion and commitment are identified as the most influential criteria. Investors look for enthusiastic entrepreneurs. Entrepreneurs who show this quality are eventually more interesting than those who might have had a great business model or product but missed passion. Investors are less interested in start-ups where entrepreneurs are not enough enthusiastic for their idea. This because start up development process is very complicated, and probability to be successful is even smaller if entrepreneurs don't commit enough. Business angels believe that dedication and passion translate into success. Showing high energy enthusiasm impressed angels even though entrepreneurs had no previous financial service experience. Also, entrepreneurs who had put most of their collected money from previous jobs in starting this business, including mortgaging their home, made a very good impression in the eyes of angels. Their behaviour was perceived as dedication and generated excitement from the investors.

- Credibility

Every communication between the creator and the angels is an opportunity for investors to build or break down trust. Many angels state clearly that they did not trust a specific entrepreneur when their answers to questions were doubtful, decreasing investor interest regardless of how attractive the business proposal was. In the angel mindset, a lack of confidence would often wash out any benefits, potential for growth, or ROI potential of the business idea. The entrepreneur should be reliable.

- Team

Angels look for passion and commitment in start-up team as well. A team that seems to have enthusiasm, devotion and an understanding of their respective roles is a great advantage. Additionally, the fact that team members might have been part of previously successful start-up teams is seen as a highly respected feature. Investors require evidence that a business is in the hands of experts, professional and reliable managers. A good management team for most companies will include members with expertise in human resources, marketing, selling, accounting, advertising and analysis. The ability of teams to be coachable and adapt to it is

a primary element to pass through the due diligence phase. Investors found that passion was needed, not just in the entrepreneur but in the entire business team. Other factors that boost success are consultant experience, advisor complementary skills, track record of work done by each individual and team experience in working together.

- Exit

Angels invest aiming a return on their investment. Angel investments generally have a 4-6-year period (Mason & Harrison, 2002), and return is normally only obtained through an exit or liquidity event. Angels look for projects that will expand and be appealing to acquirers or have the option of an initial public offering (IPO). Angel state that during entrepreneur presentations, they have encountered start-ups which had a solid business plan, were profitable, had passionate and with previous financial experience entrepreneur, and because of the fact of not having a clear exit path, they didn't get investors' attention. The angels' main subject is how the start-up reach an exit. The general idea is that if the company has significant growth and there are probable exit paths, then the ROI will come in. It is necessary for entrepreneurs to have significant knowledge on possible exit paths and which one would suit better to their start-up characteristics, type and phase of development. (Bradshaw, 2018)

2.3.2 Venture Capitalists Investment Criteria

Expecting to get the money required, thousands of founders send their business ideas to venture capitalists each year (Petty & Gruber, 2011). Venture capitalists use the filtration process when they start to evaluate potential proposals yearly. For entrepreneurs, it is a very difficult and complicated process, as there is still no clear and standardized filtering method developed by venture capitalists. Empirical data reveals that more than half of one hundred proposals are refused after twenty to thirty minutes of reviewing the business plan, a presentation of the owner, or a brief discussion, because something important is lacking (Norton, 2000) (Albers, 2006) As they do not seem to fulfil the "criteria" based on specific stages of the investment cycle, in the first step about 60 per cent of the ideas are declined. Nevertheless, about 40% of the proposals are sent to a more thorough analysis after which another 25% of the initiatives are rejected. Approximately 15 per cent of the proposals pass to the due diligence stage where a more detailed analysis is carried. Just 5 per cent of these 15 per cent proposals are considered appropriate for investment and enter the negotiation process. The issue of proposing ideas from entrepreneurs to venture capitalists is a result of the absence of the decision-making process of a clearly established venture capitalist. Experts also point out that venture capitalism does not recognize its own decision-making process (Hudson & Evans, 2005). There is still no robust analytical model, based on data for the entire venture capital industry (Streletzki & Schulte, 2013). Moreover, another explanation for the unfortunately low number of attractive investment ideas comes from the fact that venture capitalists and entrepreneurs have a different viewpoint on companies' investment capacity to fund through Venture capital.

However, different information from researches, investors communications, incubator suggestions have been taken into consideration and a careful detailed analysis is carried to create a list of main venture capitalist criteria.

- Great management team

Most investors think that the team behind a start-up is more relevant than either the idea or the product. The investors state that to grow the business, the company must have the best range of skills, ambition, motivation, experience and personality. Investors need to see a team which is uniquely capable to execute the firm's business plan. They search for clear vision, motivated founder and specific plans on how they will scale the team in 12 months. The investor would eventually have to make an assessment if it will be comfortable to

work together with start-up team and founder. Investor check the team trustworthy, and teams and CEOs readiness to listen and collaborate with investors. In fact, having successful mentors in the initial stages can be very beneficial in integrating an early stage team that is still growing.

- Big market opportunity

Most investors search for enterprises that can scale up and become successful, they need to see start-ups showing potential to become very large. Funders don't like small ideas, if the first product or service is small then maybe start-ups should position the company as a "network" business that allows multiple products or services to be developed. Investors want to know the targeted market and what proportion of this market start-ups expect to achieve over time. For most investors, revenues in excess of \$1 billion a year are a "major" market opportunity.

- Positive early traction

To investors among the most important issues is also indication of any early traction or users. A business that has early traction is more likely to receive funding for the venture, and with favourable terms. Early traction examples involve:

- Development of a beta or minimally viable product
- Early or pilot customers, particularly brand name clients
- Strategic partnerships
- Customer feedback
- Participation into competitive programs such as Y Combinator or other technology incubators or accelerators

Investors want to see, the process how start-ups accelerate traction, the main motive for traction and how can the firm get this early traction to scale. Receiving early attention or publicity, particularly from influential websites or publications. Investors may be impressed, if start-ups list in their investment pitch the number of publications and article headlines about their business.

- Passion and determination of entrepreneurs

Many venture capitalists seek for entrepreneurs who are passionate and dedicated to growing the business to face future difficulties.

Bullpen Capital's general partner Paul Martino claims: "We at Bullpen have a slogan that we like 'blue collar' CEOs. That implies we want to see operators nuts-and-bolts, not pie-in - the-sky dreamers. Show that you have spent considerable time researching our history and portfolio of investments in mutual interests. I prefer entrepreneurs who (1) recognize their metrics cold; (2) have a clear idea of their business; and (3) know how to expand it. What gets my eye is a hard-necked, focused entrepreneur who, together with a strong, currently existing plan with a few operational guides, can accomplish an even bigger performance. That is the kind of ride I would like to take."

Deepak Kamra, Canaan Partners ' General Partner, brings a related point: "Sure, if you are planning to start a serious business, you have to sound professional, but you need to demonstrate some passion and enthusiasm. Start-ups are challenging, and they take a long time to get through, and you'll need to prove that you've got the inner strength to go through the peaks and valleys. This doesn't mean you've got to jump up and down, waving your arms. Maybe it's a story about what encourages you to get into your business, why it's personal, or why you'd like to do nothing else but spend the next 5 to 10 years working to bring your idea to life."

- Understanding financials and key metrics of the business

Venture capitalists are searching for investors who really understand their company's financials and key metrics. You need to demonstrate that you have a grasp on all these and can communicate them in a coherent manner. Patricof & Co. founder Mark Patricof claims: "*Know precisely what you'd like to spend your money on. Tell me not how long it is going to last; tell me what you want to prove. The most outstanding businesspeople express their business value by numbers. A communication based on the growth of a company's revenue, sales funnel and customer turnover triggers direct connections with investors, because when founders put themselves as metrics-driven, it's as if they walked into the head of an investor*".

DFJ Ventures general partner Josh Stein says: Know the KPIs (Key Performance Indicators). Successful entrepreneurs identify their main goals and manage their companies by concentrating their teams on a set of key indicators that represent those priorities. I'm always curious if a creator can express her KPIs, logically communicate about her implementing team to improve them, and have a clear idea of where those metrics can be in a year or two".

- Reference from trusted colleagues

Venture companies are bombarded with many executive summaries and presentation files. Such requests are refused most of the time. The way to catch a venture capitalist's interest is to get a soft introduction from a trusted colleague: a businessman, an angel investor, lawyer, an investment banker, or another venture capitalist.

- Interesting and professional pitch

Before entering a meeting, the first thing the venture investor expect to see is a 15-20-page, investor pitch file. The investor needs to see from the pitch deck an exciting business model with dedicated entrepreneurs and a major market opportunity. Generally, it is suggested to entrepreneurs to have a look at other presentation files and executive summaries so they can improve and develop further their owns.

- Potential risks of the business

Investors need to know the challenges the firm might face. They want to understand the reasoning process, and the steps entrepreneurs take to minimize those risks. All investors are aware that business strategy inevitably poses risks, so they ask ventures about their principal risks, product liability, compliance of business model with existing laws, ethical risks, legal risks, and what are the steps they are planning to take to minimize and mitigate risk.

- Unique product

Venture capitalists want entrepreneurs to state explicitly, the elements from which the product or services consist of, as well as elements that make their product unique with a great performance. Investors want to hear information about the major milestones of the product or service, the main characteristic that distinguish product from competitors, customers feedback, new features they aim to add, time periods in which they think their product will need to be updated and improved.

- How and where will be the investment capital used

Investors certainly want to know how their invested money will be used and planned burn rate for specific amount of capital (so that they can realize when business may need the next funding round). This will also enable investors to check whether fund-raising plans are fair considering to capital requirements. And it will allow investors to see if firm cost estimates for technical expertise, office space or marketing cost are fair and reasonable based on their experience with other companies. Investors want to ensure start-ups have money at least to reach the next goal, so they can receive more capital. (Boitnott, 2019)

- Realistic company evaluation

Venture capitalist require reasonable evaluation of the money required depending on the phase of development, type of product and existent traction. VC give not time to start-ups in which the valuation expectations are unreasonable and unattractive.

- Differentiated technology

Because most venture investors invest in software, internet, web or other tech companies, it is important to provide an overview of the technology proposed by the company. Investors look for differentiated technology that have competitive advantage over existing ones, are difficult to replicate and have low cost when incorporated in product.

- IP presence

For many companies especially the ones which operate in high tech industry the key to success is related to intellectual property presence. Investors pay careful attention to companies which have IP, also to type of IP, the process followed to grant it, and the ownership of it.

- Reasonable Financial Projections

Investors like to invest in a business that will expand exponentially and become an attractive company. To check the believability of the financial projections, investors ask start -ups to justify the assumptions made and convince them that assumptions are reasonable.

- Legality, Compliance to laws

Investors don't want to invest in a business that has legal problems with the owners or third parties, has failed to adequately issue stock or options, has failed to make securities law disclosures, has unaccredited investors or has failed to comply with employment laws— these are all red flags.

- Business Model

Criteria for venture capital investment are about stable and high returns, and the company's business model helps it to expand rapidly. A business meets the requirements for investment by venture capital if the goods offered by the business have a strong demand in the market. The company will be able to produce goods so consumers will copy consumers. The business model must meet the requirements for venture capital investment. It should be able to attract buyers and remain ahead of rivals.

- Company profile

The criteria for venture capital investment are often based on the profile of the business. The company should be a fast-growing business with an overwhelming market position and the business should have sufficient intellectual property to create an obstacle to the growth of its rival. The company should be big enough or known to be able to develop quickly. The company should be in a good place of business.

To summarize all discussed points, a more general presentation of investor criteria is shown in the Table 4.

Factor	Investment criteria
Personality of the entrepreneur	“VC character”
	Leadership skills
	Commitment
Experience of the entrepreneur	Trac record
	Technical qualification

	Business qualification
Product or service	Innovativeness
	Patentability
	Specific Marketing
Market characteristics	Market volume
	Market growth
	Market acceptance
Financial characteristics	Fit to investment strategy
	Return on investment
	Exit options

Source: Kollmann and Kuckertz, 2010

Table 4. Venture Capitalist Investment Criteria

2.3.3 Investors' evaluation criteria in Crowdfunding

New studies show that it's all about stressing the right aspect of the pitch: investors seem to be most concerned about the management behind these firms, they also worry about the product, but they're not so troubled by the financials. CrowdRating, an independent crowdfunding rating agency, focused on over 150 crowdfunding projects carried out on four main platforms, Crowdcube, InvestDen, Seedrs and Syndicate Space, representing both positive and unsuccessful fundraising. From the results it was not quite shocking to find that when evaluating investment opportunities, the crowd focuses on the efficiency of management teams and goods, not only because many initiatives and platforms placed strong emphasis on this data. "What is more surprising is the utter indifference of the crowd towards the financials" says Modwenna Rees-Mogg the co-founder of CrowdRating.

Some of the key finding from this research related to investors criteria in these platforms are:

- Details about the management teams and the product significantly affects the crowd decision.
- The crowd identifies good management and detect when there is poor product offering for the client.
- Campaigns with the best management and product are more likely to gain crowd support, 41% of campaigns with middle level quality of management team are successful, while only 7% of other initiatives with low quality of management and products successfully raise capital.
- The crowd is generally indifferent to major financial parameters such as valuation and estimates of company performance. (Salomon, 2018)

The thorough process of evaluating a start-up on the c-crowd requires the integration of two processes, OFF platform relational work, and ON platform company presentation. Since the quality of the projects qualified to be part of the platform is the key factor in the evaluation process, a meticulous assessment of the candidate start-ups is required. This is the first stage of the OFF platform relational work. Next, after the start-up is given the green light for fundraising an investors' event is organized to attract potential investors. In this step direct interaction plays an important role in building up the "trust" between start-up representatives and investors.

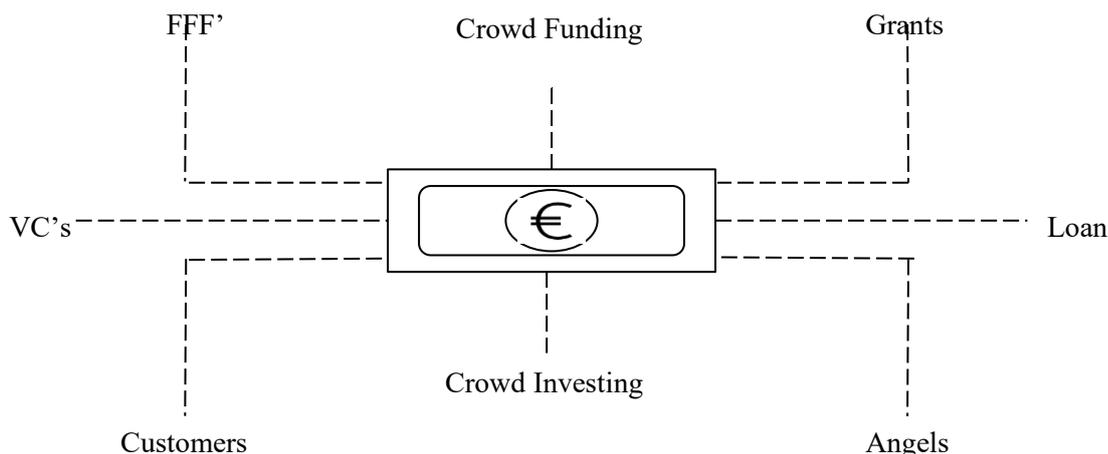
These fundraising events are a good networking opportunity for the start-up team to emphasize the qualities of their project, aiming at the same time to persuade as many investors as possible to invest in their start-up. The role of the c-crowd platform becomes especially important when the project is live and can reach to investors who don't necessarily need to be part of the fundraising events. This geographically broadens the audience of the investors increasing significantly the chances of receiving more investors.

Assessing a start-up isn't an easy job for many investors, that's why c-crowd platform enables the entrepreneurs to attach a movie as a short representation of their project and attached to it further

documentation starting from business plan to registers declaring the legal state of the company its shareholders and other additional questionnaires. Especially important to mention is Equidam, which enables the entrepreneurs to register their start-ups and after several calculations, a formal estimation of the start-up's financial worth is calculated. Alongside (LGT) Long-Term Growth (16%), and DCF with multiples (16%) activities facilitate the investors' decision-making process. (Salomon, 2018)

2.4 ENTREPRENEUR CAPITAL ATTRACTION STRATEGIES

External funding is a big step in the right direction for entrepreneurs, whether they are just beginning or have yet to launch. However, needing the start-up capital and actually getting it, are two very different things. There are a lot of other company owners out there fighting for the same financial support to expand or maintain their business. All these start-up entrepreneurs follow different strategies to approach to financial investors, some of them succeed and some other fail. In this part a synthesised view of successful entrepreneurs on the path they follow to attract capital and suggestions of investors to entrepreneurs how to successfully get capital are combined to bring a complete prospect. It is listed valuable start-up funding strategies that can help them differentiate themselves from the crowd. The main capital sources which investors are fighting to impress are: VC, Angels, Banks Loan and Crowd. (Nirmal, n.d.) Figure 10 gives a complete picture of this sources.



Source: Volumetree

Figure 10. Start-up funding sources

2.4.1 Strategies for attracting angel investors

In the early stages of company growth entrepreneurs may receive capital from specific type of investor “the angel” investor. Some of the techniques and strategies entrepreneurs follow or should employ to increase the probability of receiving funding from angels are discussed.

- Understanding angel investors

Many entrepreneurs state that it is essential to figure out what type of investor your venture needs at specific point in time, also having an understanding of these investors, their characteristics and requirements is

essential. In case of angel investors, entrepreneurs should perform their personal due diligence and discover more about each potential angel's abilities, temperament and track record. Online research and business publications may shine a light on the professional and investment background of the possible angel. The owners of other firms the angel has partnered with are in a position to offer the entrepreneur a clear sense of what he or she can expect from the angel. A partnership of confidence between angel and entrepreneur in a successful experience is an essential component. While a heaven-sent angel offers helpful assistance and sound guidance, intervention by an angel without knowledge of the market or products of the business can impede the growth of the company at a critical early phase.

- Preparing a winning business plan

Angels seek to learn how the visionary team has prepared the plan to improve and launch in market the company's goods and hopefully earn money, so a convincing business plan provides more than an overview of the technical specifics of the technological advances being suggested. The business plan will also provide reasonable financial forecasts for the first five years of the company and provide an accurate evaluation of the company's technological, legislative and financial challenges before the goods are ready for the market. Many business plans are overly optimistic about the level of competition generated by the venture, but knowledgeable angels are rightly suspicious of claims that an entrepreneur found an unoccupied niche in the highly competitive market.

- Persuasive presentation

The form in which the management team delivers the business plan whether in person or in writing will make all the difference in gaining angel sponsorship. Since many angels get dozens, even hundreds, of business plans every year, a detailed plan—usually 30 pages should be the limit—with an executive summary of 1–3 pages would capture the attention of angels rather than test their patience. Entrepreneurs should deliver their pitch to a critical yet tolerant audience before introducing their proposal in person to potential investors. The same strategy should be applied also in the written plan. Getting a previous affirmation from people they trust is an important first step towards success. Because an unreasonable document that is badly written drives investors away, entrepreneurs should ask their legislative, financial and science experts for a critical evaluation of their proposals to be presented to prospective angels.

- IP protection

Most of the angels need to perform due diligence on the organisations and its goods. Part of the company's value resides in its intellectual property, and angels will expect the management team to take the measures required to safeguard the innovations of the business. Entrepreneurs should confer with an intellectual property lawyer about filing patent applications at an initial stage, and ideally before contacting investors. A well-prepared patent application will include broad statements showing potential angels that the firm is designing a flexible platform with multiple applications instead of a single product with a small range of functions. If partners or other participants have contributed to create the company's technology, the entrepreneur should ensure that their interests in any patentable innovations that may be incorporated in the company's goods have been transferred to the company. Angels feel unsafe if third parties claim rights to the intellectual property in which the angels are investing.

- Invest alongside Angel

Angels also want entrepreneurs to show trust in their business plans by investing together with the angel. After all, why would angels place their money at risk in projects that even entrepreneurs themselves wouldn't finance. Even though angels are mostly able to write greater checks than entrepreneurs, they usually expect entrepreneurs to invest a substantial amount of their own net wealth in their companies. This contribution is

more than just a confirmation of the entrepreneur's faith on their business' future: angels believe that a businessman would actually work harder to build a profitable start-up when his or her own money are at risk.

- Valuing company realistically

And after an angel has been found by the entrepreneur, he or she is facing one of the most challenging steps in obtaining the investment: negotiating with the angel on how much the firm is worth. Obviously, entrepreneurs are optimistic about the future of their business—otherwise they would hardly have ploughed their time, energy and resources into their developing companies—but too much optimism contributes to an exaggerated sense of the value of a business. High evaluation of the business can keep angels away from investment. Even if angels are willing to back the business, an unrealistic angel-round assessment will trigger trouble later when the entrepreneur need venture capital and faces a lower, more realistic valuation. In this situation's angels would require repricing their equity at the lower value. This is understandable because one of the key reason's angles decide to invest is to make some profit from financially supporting early stage firms. If the business is successful, the founder will be adequately compensated and the angels enjoying a healthy return are more likely to help the business by making additional investments or enabling others in financial world to contribute. (Prohorovs, Bistrova, & Ten, 2018)

2.4.2 Strategies for attracting Venture Capitalists

Different start-ups follow different strategies in attracting VC and they are generally not very different from approaches they take to get business angels, even though they have different characteristics and criteria. Some of the main strategies suggested to attract VC are discussed in the following lines.

- Well written business plan

Entrepreneurs explain that one of the first aspects investors will be interested in, is the business plan. One that illustrates the company's objective with all its positive and negative sides. Every VC wants to see a flexible business plan which takes into account the obstacles and changes in the market. They want a concrete strategy demonstrating a practical approach to achieving measurable objectives. Start-ups claim that the construction of a strong and well-structured business plan supported by proof is essential to secure capital. (Prohorovs, Bistrova, & Ten, 2018)

- Value Proposition

Entrepreneurs know that investors look for better and/or different solution to present problems, that is why they are continuously searching and developing new ideas. It is essential that the products or services they provide have the potential for rapid and sustained growth.

- Customer base

VC are searching for signs to get convinced about the quality of entrepreneur's business, and customer validation of the product is one valuable signal. Entrepreneurs show to VC that there is an unmet need in the market for, which their product fills and people are willing to pay for this product. Demonstration of traction presence both in demand and supply side is necessary. Even though it is difficult for start-ups, they work hard and should be prepared to show real sales and proof of consumer demand. (TEmples, n.d.)

- Entrepreneur and Team

Entrepreneur and management team are the heart and soul of a business. Venture capital investors are searching for a founder and a team with these attributes: Passion - the entrepreneur has to show a genuine enthusiasm for their goal for the company. Tenacity: the entrepreneur has to prove that they have the strength and

determination to stay with their idea in good and bad times. Flexibility: When things don't turn out as planned, the entrepreneur must be able to re-evaluate and remain focused on their projects. (Harroch, 2019) Commitment: The entrepreneur must be able to spend enough of his own resources in this project to persuade investors that he is passionate and confident about it. Teamwork: The team should show that they can work together effectively. Coachability: The teams normally don't have all necessary knowledge to be successful so they should be able to accept coaching in different topics. (Kingston, 2016)

- Scalability

Venture capital investor search for companies that are scalable, and able to attract new customers without having to recruit large number of new employees to deal with customer growth. Entrepreneurs need to decrease the time, energy and money the next sale takes in order to be considered scalable. Because increasing resources has costs which decrease revenues, and investors don't want growth for growth's sake. (TEmples, n.d.)

- Disruption

VC tend to finance innovative ventures that are unique and can't be easily copied. They should create innovative or exclusive products that establish entry barriers and prevent competitors from replicating.

- Business Model

Entrepreneurs state that business model is important for investors and they will track every euro of revenue and seriously question any cost needed to produce that euro revenue. So, it is essential to prepare it well and stay on your saying and support it till the end. Normally venture capitalists seek for business models which are: Profitable, scalable, repeatable, defensible and predictable. (TEmples, n.d.)

2.5 Start-up Incubators

A start-up incubator is a collaborative network designed to support successful new start-ups at a very early stage. Incubators support entrepreneurs by offering workspace, seed funding, mentoring, and training as well as other benefits to address some of the common issues associated with running a start-up (Jee, 2018) A start-up incubator has the sole purpose of helping entrepreneurs develop their companies. Start-up incubators are typically non-profit organizations and don't work according to a fixed schedule. Some incubators are independent, and others are supported or funded by venture capital (VC) companies, government entities, large corporations or angel investors. (Act 365!, n.d.) Incubators are mostly associated with universities and business schools, however there are other incubators created by corporate entities, governments start-up organizations or successful entrepreneurs. Incubators are usually focussed on sectors such as healthcare or technology. That helps them to give participants more focused tools and knowledge. (Willson, 2019)

Here is a list of the most important services offered by start-up incubators:

- Assistance with company basics
- Networking opportunities
- Advertising support
- High-speed Internet connectivity
- Accounting / financial management assistance
- Connectivity to bank loans, loan funds and guarantee programs
- Help with interpersonal skills
- Connections to higher education tools

- Connections to potential partners
- Connections to angel investors or venture capital
- Comprehensive business training programs
- Advisory boards and advisors
- Selection of the management team
- Assist with company etiquette
- Product marketing support
- Help with regulatory compliance
- Intellectual property management and legal advice (Willson, 2019)

2.5.1 Role of Incubators

For first-time founders, incubators are attractive because they can learn from skilled executives, validate business model and gain industry reputation from the prestige of the program. Incubators help early-stage businesses develop their ideas, construct a business plan, work on product to market fit, find potential complications related to intellectual property and connect with other start-ups. Many programs see entrepreneurs relocate to the office space of the incubator, where they work for the duration alongside other start-ups, or until they have the skills and abilities to expand on their own.

They foster development and growth in ways such as:

- Investing in start-ups

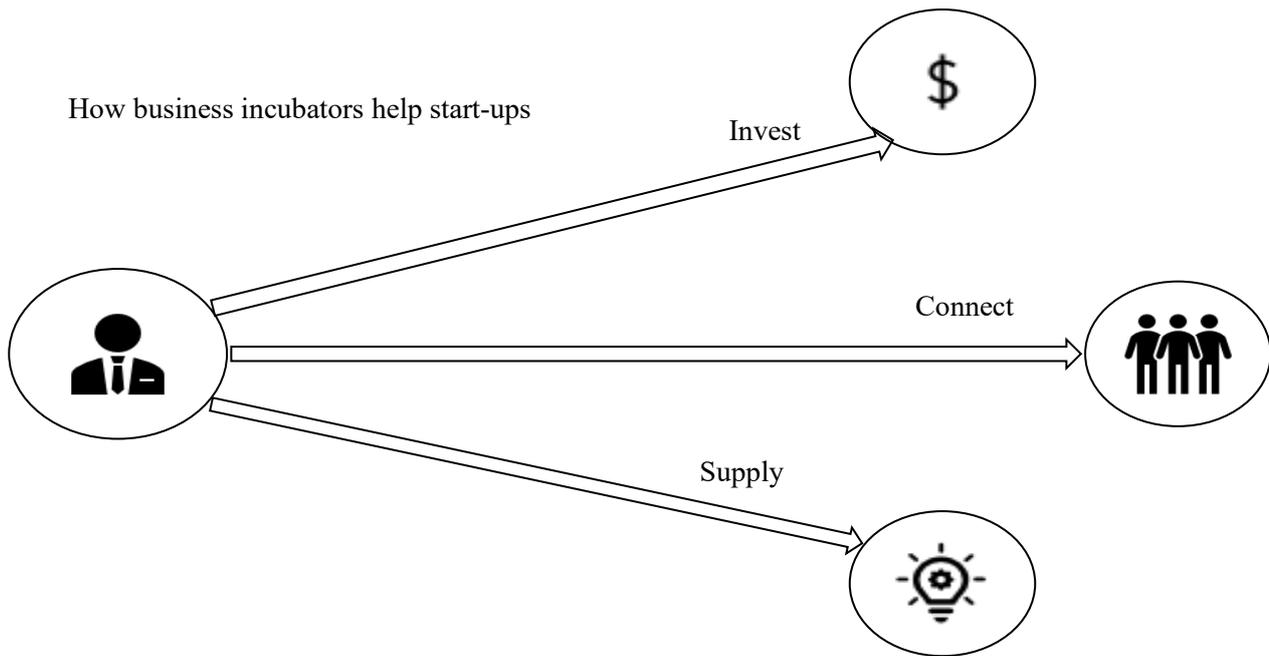
Start-ups require support in the early stages when exploring business models and designing products. Incubator funding options differ and may be available in the form of loans or equity-exchange investments. Start-ups can take advantage of the workspace that incubators provide, reducing budgetary demands such as office rent and overheads. They also offer the ability to share capital with other start-ups, allowing them to make the best possible use of the funding they receive.

- Connecting start-ups to investors

Start-ups need to find and win over elusive investors to raise money—some spend months looking and failing to get appointments, while others use costly intermediaries. Incubators theoretically reduce entrepreneurs time and money by connecting them to their networks of massive venture capitalists and angel investors. Plus, start-ups are better prepared to meet investors and improve the chances of winning one because incubators help craft their pitch.

- Providing professional coaching and visibility

Successful entrepreneurs serve as mentors in incubators and give advice on business concepts and assist in developing an appealing business plan that is ready for prospective investors to be introduced to. Incubators also provide activities where start-ups can practice the delivery of their pitch to network with potential funders or partners. (My business, 2019)



Source: act!365

Figure 11. How incubators help start-ups

Figure 11 shows the main advantages start-ups earn from business incubators, among which are: investment, network and supplies.

- Accelerate start-up growth

Start-ups while trying to expand, accelerate their growth and avoid the obstacles that normally arise, need incubators tools and benefits that enable them to grow and develop in exponential rate. The connections start-ups build when working at an incubator helps to take business to the next level. Because of the low costs and expenses associated with incubators, when attempting to accelerate start-up's growth, a large number of risks is avoided. Incubation offers to start-ups opportunities that in other conditions would be able to have only in large corporations. According to statistics the survival rate of incubator clients in five years, is estimated to be around 75-87%anywhere, an impressive rate in the high risk, high reward entrepreneurship industry.

- Low Cost Space & Flexibility

Incubators provide a number of various types of facilities, like a coworking space, at a fraction of the cost of purchasing or leasing their own space. Renting office space usually is one of the biggest expenses a company can have and normally are not able to afford it when they first launch. Many incubators offer options to fit start-ups budget and needs. For example, many of these incubators offer options such as shared office space, a private office, and a single cubicle, meaning they get the type of office space they need at a low cost. (University Lab Partners, n.d.)

- Low cost access to sophisticated facilities

One of the most advantageous benefits of entering an incubator is that they provide access to costly equipment that start-ups would otherwise be unable to buy with minimal funds, depending on the sector this equipment is essential for growth. Incubators also give technical training and supplies for equipment usage. Often this equipment is difficult to find and expensive to maintain but may be something that start-ups need to push

company in taking the next step. For instance, start-ups working in a life science industry such as biotech or MedTech technology, the facilities they have at disposal in a wet lab incubator may be useful in helping with testing and product development. A wet lab incubator's equipment and facilities can include a freezer farm, fume hoods and a tissue culture lab, all of which will usually be much too costly to optimize start-up limited funds. (University Lab Partners, n.d.)

- Partnerships

The creation of partnerships is a key aspect of growing any company. Although it may not always be in company's best interests to enter into a collaboration, doing so will generate several new possibilities while improving industry exposure. When working in an incubator, start-ups have a high opportunity to meet other entrepreneurs in a unique place to collaborate with their team. Incubators are often limited to a single industry or a group of similar sectors, meaning the other incubator companies are likely to work in a common field. Also, start-ups might build partnerships with market leaders or influencers, elements that may help start-ups to achieve huge success. (University Lab Partners, n.d.)

- Access to Professional Resources

By partnering with incubators start-ups gain access to technical services that might previously have been inaccessible, including anything from education to tech and business tools. Although the professional services offered to a start-up vary from incubator to incubator, it is likely that in general they obtain such office requirements such as administrative support and internet access. Also, several of these incubators hold regular workshops for the incubator's numerous start-up partners. These workshops also concentrate on topics such as future predictions, market concepts, how to get funding, legal structures and rapid prototyping. All of these workshops are usually offered at one place, saving time from traveling when beneficial workshops for company or team are available. (University Lab Partners, n.d.)

- Networking Opportunities

Networking is important for start-ups success both in the short and long term. Networking is the sharing of knowledge and the creation of relationships within the industry with other experts, leaders and start-up entrepreneurs. Especially in first entrepreneurial experience start-ups find it very hard to build a strong network without a good base of the industry's professional relations and connections.

Incubators provide start-ups with the best methods to create powerful and productive network among other business leaders and entrepreneurs. Many incubators have enough office or laboratory space to accommodate hundreds of different start-ups and firms looking to expand their business.

By entering an incubator, start-ups have access to all of these companies and individuals, making networking easy and accessible. So, they gain connections, referrals, new business opportunities and often exposure in the very industry they are trying to develop in. Some of the business opportunities that networking activities bring include joint ventures, speaking opportunities, asset sales and strategic alliances.

2.6 ITALY START-UPS

Italian entrepreneurs in comparison to other countries have a high efficiency, imagination, dedication, expertise, and vision plus Italians have a unique sense of combining tradition and innovation, and this is a key feature given that technology is changing in each field.” Emil Abirascid Journalist start-up

Italy's top innovative start-up segments are: business services (information technology, software and IT consulting, R&D services, ; industrial manufacturing (computers, electrical appliances, electronics and optics, appliances) and commerce.. The region with the largest number of creative start-ups is Lombardy, preceded by Emilia-Romagna, Lazio, Veneto and Campania. In the provinces of Milan, Rome, Turin, Naples and Bologna, is located the highest concentration of start-ups. (Italian innovation day, n.d.)

2.6.1 Italy Entrepreneurs

The entrepreneurs of start-ups in Italy are mostly man with an average age of 43, who have had previous work experience as entrepreneur or self-employed professionals. They are university graduates mainly in management and engineering fields. Education level is very important as it makes a difference because the higher the educational level, the greater the implied compatibility between the educational background and the tasks executed in the start-up.

Entrepreneurs are people not necessarily oriented towards entrepreneurship in young ages by families, their parents have different background working as self-employed professionals, entrepreneurs, and employees in managerial role.

The main reasons entrepreneurs get engaged in entrepreneurship activities are: the desire to develop an innovative service or product, to launch a successful business and become rich, to have the possibility to be self-employed and not depend on others, and sometimes to put into practice their research and findings.

Teams of Italian start-ups are formed by members aged in between 23-34, who have graduated mainly from technical universities. Employees are from the same place start-up is established, and they are engaged in duties which are consistent to their educational background. Open end contract is the most used employee contractual method. (Corbetta, 2018)

2.6.2 Italy start-up funding

The necessary funds to develop start-ups in Italy mainly came from the savings of the founders. Entrepreneurs rely on their own sources because of lack of support from other financial resources. Equity investments (VC and BA) are very rare, some support was given in form of bank loans or public funding.

Start-ups usually prefer to fund their ventures with equity, since it is more suitable to high risk activities which are profitable only in long term. But the nature of start-ups and lack of support from investors causes start-ups to use a combination of equity and debt.

A large number of start-ups don't try to raise capital from VC, because the amount they receive through other sources was sufficient but mainly because they lack the confidence to convince VC. Sometimes these investment offers are not considered as adequate by start-ups because the evaluation of company from investors is very low, or conditions of contracts are not good.

Italy start-ups are founded based on product innovation, process innovation and marketing innovation. Mostly start-ups focus on improvement and diversification of existent products. Over half of start-ups do not hold rights on any form of intellectual property. Informal protection tools like trade secret are more common than formal tools. (Corbetta, 2018)

2.6.3 Italy start-ups general knowledge

An innovative start-up's core business consists in the development, production and commercialization of innovative goods or services of high technological value. The start-ups are usually young companies, that's why to be classified as one they must have been established for no longer than 48 months. It is important that according to Italian legislation the start-up company must reside or be subject to taxation in Italy. An additional requirement that a company needs to full fill in order to be considered as a start-up is that it must have a turnover that doesn't exceed 5 million Euros. (Italian company formations, n.d.)

The profits of a start-up company are not distributed. The creation of a start-up company should not be as a result of the merge, division or transfer of an existing company. It should be an independent company. Important to emphasize is that a start-up's cost should be related to Research & Development, or at least one third of the start-up's team are people who hold a PhD degree or are PhD candidates or have conducted research for at least 3 years, or the start-up is the owner of a licensee of a patent.

Italian Government has made it possible to encourage the entrepreneurs to create and develop start-ups by offering a supporting environment and policies for such companies. In Italy corporate and private investments in start-ups are subject to a tax credit up to 40%. An additional tax credit by 33% is applied to start-ups where highly qualified personnel is hired. To encourage entrepreneurs or investors who want to be part of a start-up in Italy, fast track VISA procedure is offered using the "Italia Start-up VISA procedure". Additional facilities are provided by a governmental funds (Fondo Centrale di Garanzia), facilitating the process of assessing credit through bank loans. All issued documents for a start-up are made free of charge.

In the report of 2017, in 1414 Italian municipalities there is at least 1 start-up company. Only in the area of Milan in 2017 there were registered 60% of start-ups located in Lombardy, and 14% of all Italian start-ups. The regions with the highest ratio of start-ups over the total number of companies operating are in the provinces of Ascoli Piceno (Marche region) and Trieste (Friuli-Venezia Giulia). According to the same report the survival rate of start-ups in Italy (as per 2017) is very high, only 6% of the start-ups created in 2014 ceased their activities, indicating a low number of start-ups which couldn't survive in the Italian market. The percentage (21,5%) of people working or investing in start-ups below the age of 35 years old, is nearly triple (6.7%) as much as the average of other companies in Italy (as per 2017). Innovative start-ups make significantly more investments and have a rate of fixed assets on net assets (25%) eight time higher than other Italian companies. (Corbetta, 2018)

Detailed information about start-ups in Italy is provided in Appendix A.

3 METHODOLOGY

The research methodology has a unique value in ensuring and promoting research efficiency. A detailed research methodology makes both research findings and future ideas accessible and understandable. This chapter discusses the analytical methodology used in the study of this Master Thesis.

The Methodology Chapter is presented in six section, each part containing valuable information for research methodology. Firstly, “Research Problem and Research Design” section which shows research strategies, problems and questions. Secondly, “Methodological Approach” provides information about the method selected, method background and its strengths and weaknesses. Thirdly, “Data Selection” presents the group taken in consideration for study and their company descriptions. Fourthly, “Data Generation and Collection” describes the process and stages followed to collect data. The other section “Limitation” presents the challenges faced during data collection phase. Finally, “Data Analysis” describes techniques used to analyse gathered data.

3.1 RESEARCH PROBLEM AND RESEARCH DESIGN

Start-ups are the initial step for further development of new young businesses with perspective to grow, become big and bring new technologies, new solutions and new ideas to the world. To get to the second step and have an interaction with the world these start-ups need support especially financial, they need capital and investors that provide this capital. But how they find this money, what do they do to convince investors?

This research aims to understand the process start-ups follow to attract investors attention and capital. The core goal is to recognize, analyse start up perspective and strategies they follow to get money. The main research question is: How start-ups attract financial capital? To develop in detail and get a clear understanding other questions support the main research question like:

- How start-ups attract financial capital?
- Do they follow any specific strategy?
- Do they know what investors really want and try to comply with them?
- Do they give proper work and attention to capital attraction or they are most focused on start-up development and live it to luck, and hope some goodhearted BA or VC will invest in them?

All this research questions work together to achieve the main goal of the work. Following there is a table, where synthetized information about research objectives, questions, methods and data collection is given.

Research Objective	Research Question	Research Stage	Research Method	Data Collection
-To analyse start up perspective in attracting investor. -To understand entrepreneur standpoint on this subject.	-How do start-ups collect capital? -Do they follow any specific strategy? -Do they know what investors really want and try to comply?	-In depth study	-Multi-method qualitative study	-In depth interviews -Start-up website -Entrepreneur experience -Questionnaire

Overall intention is to understand what really start-ups do to find money, because from previous work, research and different contacts with investors is clear what investors want, they have specific characteristics they are looking for, but what we see is that most of start-ups fail mainly because of lack of investments, this means that something is missing and they are doing something wrong. So, in this thesis the start-ups view of point is considered, what they think, what they do and what element they give importance to understand better their attitude, what is expected from them and compare this results, which will eventually lead to further work to improve their performance, attract more investments and decrease the level of failure.

Hypothesis of this thesis is: Understanding start up viewpoint may bring new proof work to the research market, therefore positive effect for start-up overall performance and successfulness especially in attracting capital.

In this work, consistent with the method, which is selected to do the study, it is assumed that information provided by start-ups is reliable and clearly explains their perspective. Also, it is presumed that start-ups are legal entities, their presence in Polito I3P gives assurance about their real existence and their activity development. It is supposed that the given opinion is equally important for all start-ups even though some of them are very new and have little knowledge and experience.

3.2 Methodological approach

Since thesis aim is to understand the start-ups standpoint and after interpret information they give, the method which mostly suits to the intention of this thesis is Qualitative approach. A case study is the most appropriate research strategy based upon the exploratory nature of this report. The exploratory nature of this research has characteristics of being more flexible and adaptable to the question of the study. This analysis asks questions like “Which” and “What”, this are particular questions in case study strategy.

The goal of this research is to learn how start-ups find financial capital. A feature that fits perfectly into a case study strategy which focuses on understanding a complex phenomenon (Yin, 2009). Therefore, a case study often requires an empirical analysis of a real-life phenomenon, which uses different data sources to support its research findings.

A case study could be expanded as one or several critical cases (Yin, 2009; Saunders, Lewis, and Thornhill, 2009). A multi-case analysis work is chosen taking into consideration the features of start-ups and their plurality. The variety of fields, technologies, and culture claims a holistic and multi-perspective view for this case.

The research developed is a qualitative multi-method study, as it presents various types of qualitative data such as in-depth interview, reports, website information. Deep interviews with entrepreneurs or important team members from start-ups will give all the information necessary and possibility to have an observation of start-up members overall ideology, beliefs and perspective.

3.2.1 Method Background

Qualitative research has been used for a long time from social researches because it helps to understand the meaning people give to their behaviour, activities and interactions with each other. (Crossman, 2020) Qualitative research is the process of getting in someone’s mind. It is a method to collect data through open conversations and interactions with people who have direct contact to the topic you are studying. (RAdu,

2019)Qualitative researchers use their skills, senses, hearing, observing and brains to gather data about attitude and depiction of a focused population, event or place. (Crossman, 2020) To collect this data they use different methods or combinations of them.

Qualitative methods are:

- One – one interviews

One of the most common methods it gives the chance to collect actual data on what people or organizations think and their incentive of behaving in a certain way. It can be conducted face to face or over phone, can last between thirty minutes and two hours. Face to face communication gives the interviewer the opportunity to read the body language and check if it matches with their answers. (Crossman, 2020)

- Focus group

Researchers collect data through organization of focus groups which have five to ten members, for topics which are not important, have little impact and people are less involved. For significant topics with high impact and more experience focused groups have less members. This method is more expensive comparing to other methods. Social researchers utilize them to analyse activities and tendencies that happen within a specific community. (Crossman, 2020)

- Ethnographic research

Ethnographic research is the most in-depth observational technique that studies human beings in the environment they live and interact. This method requires researches to familiarize with the target environment which can be city, organization, country etc. Here geographical constraints might cause troubles while collecting data. This kind of research don't rely on interviews and discussion instead it learns from the experience and interaction you get while living in specific environment. This method takes a lot of time from days, weeks and sometimes years. It is hard and time-consuming technique and totally depends on the knowledge of researcher to be able to observe, analyse and infer the statistics. (Bhat, n.d.)

- Case study research

This method has evolved this last years and has turned to be one important qualitative research method. It is used to explain an organization, enterprise or entity. This type of study approach is used within some areas like training, social sciences. This technique may be difficult to perform because it includes a deep dive and thorough understanding of the records collected and inferring statistics.

- Record keeping

This approach makes use of previous and already existing documents or different data sources. They can be utilized in completely new researches. Analogy with going in library, books and information is available to everyone and this information can be used for different researches.

- Qualitative observation

This method does not use measurements but instead it uses characteristics and sensory organs and their functionality: sight, smell, touch, taste, hearing. This research uses subjective methodologies to collect data and facts. This method is mostly used to equate high quality differences.

3.2.2 Method Advantages and Disadvantages

Qualitative research method as it is a very good method to use when you need to understand people behaviour, but it has its own negative sides.

Weaknesses of this research method are:

- Time consuming

The complete procedure would possibly take numerous weeks or months, because time coordination is important, and interview process itself is long. Besides, the varied views recorded are analysed based on researcher understanding. Additionally, qualitative study depends on private interplay for information collection, often discussion has tendency to deviate from the initial topic to be studied.

The process really takes time, and I gave myself one semester to work with thesis so I could have all the necessary time to do the work properly. Time coordination was a problem because start-ups were busy, but I was available at any time and have complied to their programs. To not allow the conversation to deviate I had prepared several interview questions which were a must to answer, after getting this information we could talk about other topics. Questions were clear and to the point, also I was there to explain any uncertainties and insisting to get good responses. (Chetty, 2016)

- Lack results verification

Qualitative research being open ended, causes data collection to be mostly controlled by participants because they are the ones who give their opinion or point of view. Researcher is not able to verify their objectivity, what he can do is trust the scenarios given by its respondents.

To verify the objectivity of their answers a previous research of the start-up's webpage was done, to have a previous impact and then expand with interviews. The importance of objectivity

- Difficult to investigate causality

One other problem of this research method is complexity of explaining the difference between quality and quantity of information given, because sometimes correspondents give not valuable information which lead to not consistent conclusions. (Chetty, 2016)

- Labour intensive approach

Qualitative research is very intensive approach, which needs categorization, recording, notes and being very attentive to corresponds answers. Researcher should be experienced and have good background in order to do a complete and clear analysis of information gathered. (Chetty, 2016)

I am an engineering management student, so I have good background on business and strategies , at the same time I have attended entrepreneurship course, developed the business plan of a start up in I3P so I think I possess the adequate knowledge for verifying analysing and setting conclusions. Of course, I am still student, I don't know everything but for every question and problem I have consulted with my professor for advices and further ideas.

To compensate further this negative effects, qualitative research has advantages as well.

Some of the advantages are:

- Small sample size

If the group selected very experienced and has direct impact with the research topic, small samples can give valuable information, saving costs.

- Open ended process provides depth detail

Interviews and communication give chance not only to learn information about a specific point but also observe individual emotional response which drives decision and influences behaviour.

- Detailed evaluation

Less focus on the metrics of data collected and more attention to nuances which can be found in that information. This allows data to have high level of detail.

- Fluid structures

Open end process allows to ask questions out of target enhancing the overall data value.

- Data complexities can be integrated into general conclusions

Different people have different perceptions for different facts, event this because they have particular personal experiences. These makes the collected data more complex but the result more comprehensive, accurate and deep. (Gaille, n.d.)

3.3 Data selection

To achieve the goal of this thesis and understand start-ups perception on how they attract capital, a group or organization need to be considered as case study, Polito I3P organization is chosen to be observed and analysed. The reason of this selection is because this is a thesis done in Politecnico di Torino and the author would like to contribute and leave their work as a proof of being Politecnico student. Of course, there is not only personal reasons, other important ones are related to logistics and the presence of such organization in university campus.

It is necessary to emphasise that I3P is very good choice because it has been present as start-up incubator for a long time, has big and well diversified portfolio of start-ups and is very successful incubator getting different premiums in international competitions. So the participants who were initially intended to be part of this work were Start-ups incubated in I3P.

Their portfolio consists of 37 start-ups. During the process of data collection and interview development difficulties were spotted into realising the goal of analysing the overall portfolio and as a result only a part of it was interviewed, 15 start ups were taken in long face to face interviews. This group size is not very large therefore the results driven by this research cannot be generalized for other entities. Even though the size may look not adequate, the participants are members with experience and good knowledge about the research, they are all incubated in I3P and in a general sense they somehow are ruled by same ideologies and beliefs, thereby this group with whom interviews are conducted is a comprehensive re presenter because they have different sizes ,different longevity and belong to different sectors.

A summary of the participants of this case study is presented in Appendix B.

3.4 Data generation and collection

To complete the research framework different data sources are used. Data collection techniques used in this research framework are qualitative and can be split in two categories: primary and secondary. During data collection process of interviews, there were situations where participants didn't want to answer specific questions related to their financials, or they would state they aren't looking for financials, however all the interviews are included in this work.

Data collection sources are numerous. The six most important ones are: interviews, direct observation, observation of participants, documentation and records of archives. For this research, initial data was collected by in depth interviews and direct observation of participants actions, body language interaction with interviewer and synergy within team.

Secondary data was used to support the collection of primary data and it was gathered from websites of start-ups and information present in I3P page. Secondary data quality was not distributed in a uniform manner. Many businesses have a user-friendly platform for gathering information about their products and value chain. Yet only part of the study has answers that the researcher could use to fully understand their view.

This thesis has taken in consideration as a case study Polito I3P start-ups, research was conducted in I3P areas where all the start-ups are located. The interviews started at the first week of November and continued till Christmas holidays. To have a better conversation with start-ups and confidentiality a previous research of their websites was done to have some previous knowledge and assist if they are matching what entrepreneurs were saying. To ensure the objectivity of information given, it was shown to entrepreneurs the seriousness and the importance of project, objective and clear information would lead to better results which will be provided to start ups to help them understand their position and what they should change develop in order to do better. Self-benefit is the assumption made to support the objectiveness of their views.

The interviews were conducted in person with the entrepreneur or in group together with their team in their offices. The interview started with asking for their time and permission, a soft start to get to know them and after deep in detail with answering interview questions. Depending on the synergy created between the entrepreneur or team with the interviewer, interviews would last from thirty minutes to one hour maximum. They were a continuous interaction asking defined questions prepared, but also other ones developed through conversation. During the interviews detailed notes were kept and sometimes with their permission voice recordings were taken.

3.4.1 First stage of data collection

Ensuring the quality of the interview questions was the first step of the first stage. Firstly, a bilingual list of questions was prepared, in English and in Italian (the native language) to be flexible for every possible situation. A previous literature review was essential for the elaboration of the interview guide.

The questions were developed based on past research proposals, theories and the aims of research. After the question structuring a double check with my mentor was done. Secondly, three potential interviews were selected to audit, criticize and demonstrate a clear understanding of the questions. Finally, their feedback and suggestions were taken in consideration and the final interview guide was prepared. The final interview guide contains various questions, which aim to extract start-ups view on this topic. Question are related to topics such as:

- Entrepreneurs vision
- Start up short presentation and impression
- Elements they consider important to attract investors

- Organizational factors
- Market and product
- Financial factors
- Presentation
- I3P support

The interview guideline used in this research is provided in Appendix C.

3.4.2 Main stage of data collection

This stage started with decision of channels to be used, in order to carry on with the interviews. Previously a detailed analysis of the information provided in I3P website and each start-up website was conducted. Then the author tried to contact with I3P director to ask for his consent in entering in I3P offices and carry some interviews. After that, individual mails were written and sent to all I3P start up portfolio, through their official mails stated in their websites. In this way they could have a previous information about researcher background and objectives, before the interview process. After these steps the researcher was presented to I3P start-ups offices and ask their permission to conduct the interviews. Most of the interviews were carried face to face, some of them through detailed answering by mail or even with voice recording. During the interview process, the start-up team and entrepreneur behaviours, communication, enthusiasm, and synergy were carefully observed by the interviewer based on previous knowledge earned by literature analysis.

3.5 Data Analysis

Data Analysis is the most difficult phase a researcher faces during the case study work. There are four general analytical approaches which can be used in case studies: Depending on theoretical principles, reviewing rival alternative explanations, developing a case summary and working the evidence from bottom to top. (Aberdeen, 2013) The technique selected in this case study to analyse data is developing a case overview based on academic data. This is the best method, since it is essential to use the theoretical propositions which led to case study. The case study's initial goals and design are focused on theoretical propositions, indicating research questions, hypothesis and literature review. (Nelson & Martin, 2013) This research can be seen as a combination of deductive and inductive approaches. On the one side, it has deductive reasoning based on the theory of start-ups and investors behaviours related to capital, which enables to foresee some of the outcomes of the data analysis. On the other side, it has a deep deductive reasoning relying on detailed observations of individuals actions, and responses, which have been used to detect trends, give reasonable explanation to selected phenomenon and imply generalization. It is necessary to know the features of qualitative approaches to understand the context, the individuals and the relationship between players involved. To clearly understand them, different methods of data processing were introduced, such as structuring, categorizing, and summing up. Taking into account the database obtained during this analysis, there are many hours and pages carefully studied and analysed.

3.6 Challenges

Doing interviews is very long, tiring and difficult process. In the interview conduction process lot of problems were faced, mostly related to communication with start-up entrepreneurs or team. In seven weeks, the author has been in I3P offices going around and asking for interviews. But because of their busy schedule, work and other activities, they had very limited time and mostly refuse to get in contact.

This was the main concern with the ones that cared and open the door when knocking, but there were closed doors, which cared very little to give an answer and open the door. Some would complain that the interview would last long, and they didn't have that much time, while some others would be polite enough and do the all interview without problems and thanking in the end.

To solve these problems, author has done what is possible. Together with mentor support, firstly it was written to I3P chairman Giuseppe Scellato, and ask for his help, but because of his busy schedule no answer was received. After that mails to all start-ups were written, and a digital copy of interview questions was sent so they could have an initial idea about the research objective. Again, no response, it was tried to go directly to offices for help and from this process some of them reacted positively and agreed to be interviewed.

The other part which is the highest percent would say come later or they didn't have time and to come other days, everything was tried from going in different hours and days, but still they were busy. For the closed doors papers were written and thrown under the door in order to get a reaction, but even this attempt resulted unsuccessful. To make the interview process easier interview guideline was shortened, focusing only on their financial perspective, and finally this questions were converted into multiple choice and try to contact important people in I3P, but it is sad to say that no help was given.

There is a wide presence of work on investors and what they are looking for, different evaluation methods are used. But there is an information gap related to start ups and entrepreneurs view, with this method and work is intended to increase awareness on this topic and let space for new, further works.

4 RESULTS

4.1 Interview Analysis

This part of thesis consists in, analyzing of answers given by entrepreneurs for most important questions, which lead eventually in understanding their perspective in attracting investors. Not all questions are analysed but an overall view of interview sections is given. It is important to emphasize that all the interpretations are done based on the conducted interviews and personal observations of start-up teams and their behaviour. To show the interview process, examples of a face to face interview and audio message are presented in Appendix D and Appendix E.

4.1.1 Questions about entrepreneur

In this section entrepreneurs were asked about their background, characteristics of personality, their vision and their values. The idea behind these questions was to understand entrepreneur standpoint, passion, enthusiasm, dreams and perspectives for their own idea, start up.

Entrepreneurs of I3P, are mostly people who have finished their studies mainly in engineering and have a study relationship with Politecnico di Torino, this means that they mostly are technical people with specific knowledge. The departments which they mainly studied were: Mechanical engineering, Computer engineering, Industrial Engineering. Their start up creation journey has started during university or research days, and mainly in forms of co-founders between two or more university friends. There are also start-ups developed by people outside and not related to Polytechnic which are positioned in I3P, to profit from its services, Politecnico's well prepared students, university research work and knowledge in general present in this kind of institutions.

Entrepreneurs were at an average young age between 27-40, whom had had some working experiences in different fields, within other organizations or I3P itself before starting their own start up. One important characteristic worthy to mention is the fact that all entrepreneurs are people who think out of box, get bored easily, continuously want to do something different, behaviour which is influenced from family, education, freedom they have had at a very young age and for sure their personality.

Analysing entrepreneurs' characteristics and their way of thinking was one of the most beautiful parts, they were so different in character, culture, background but so the same when it comes to business, enthusiasm and ethic they had for their work. Most of them possessed elements that an entrepreneur should have in order to be successful. Some negative parts were the fact that these start-ups were their first experiences and from researches it is shown that is difficult for entrepreneurs to be successful in their first try unless they are lucky. Indifferent and unresponsive behaviours were spotted among some of the entrepreneurs.

I3P entrepreneurs share admiration for various successful entrepreneurs in the world, especially the outstanding ones who managed to breakthrough and become wealthy. The most mentioned name was Elon Musk, justified by the reason that they like his approach to push technology limits and constant change with the perspective of what the future will hold for humans. Other names such as: Steve Jobs, Bill Gates, Jeff Bezos were admired for being dreamers, perfectionists and very hardworking people.

They clearly gave the message that they like this people not only because they are very successful and managed to get a lot of money but because of their personal values, what they are trying to bring to the world, and their vision for the future.

A specific question to understand entrepreneur attitude was, how they would solve the problem or react in the case when coming investors thought they were not adequate to continue running the company. Answers of this

question were surprisingly interesting. I3P entrepreneurs would step back in this kind of situation and live the direction to professional people. Some of them planned this exit from the beginning without this situation happening because they wanted to pursue new ideas and new directions, others thought they are very technical guys and maybe not develop well enough their management skills so someone with greater understanding in this direction would be better and some others stated that they would develop themselves and do anything for the success of their start up.

Even though it might look very difficult to leave your own idea in the hands of others, these entrepreneurs were ready to do it for the success of their business but also for their personal development and fulfilment. This is an important element showing that we have visionary entrepreneurs with desire to develop, change and bring innovation to the world.

4.1.2 Questions about start up

This part of interview contained questions about start up idea, problem, aim, future goal, principal risks, team accomplishments, and user experience. The goal of questions of this section was to get involved a bit in their activity, have a better understanding of what they were doing, see their level of progress, general start up situation and their intentions for the future so we could have a naturally following conversation when passing to the investor part.

Start-up ideas were in general solution to a problem they were having in their real life, or difficulties they were having in previous working experience. After searching for solution in market and figuring out that the market was lacking, they decided to develop it themselves. This kind of idea generation was mostly present in industrial start-ups. Fintech, Deeptech or Cleantech start-ups were created mostly to keep up with technology and to increase innovation and sustainability.

A trend figured out during these questions was creation of new start-ups without the presence of a market, they were trying to create market from zero which in most of the cases is deadly for start-ups. All of them were striking for new ideas, focusing a lot in generating and developing new concepts and perceptions, forgetting that it is more safe and easier to develop an existing one since at least they already have a market and you only need to provide an excellent product or service.

I3P start-ups depending on what they were delivering, had different aims such as:

- To bring to the market products easy to use, accessible and reliable
- To support different business
- Facilitate interactions between entities
- Change approaches
- Give possibility to enjoy experiences
- Bring new, high quality and sophisticated services
- Raise awareness on important topics

As this aims are different from each other their main intention in itself is the same: to make human life and their experiences easier, to introduce them to new approaches and create appreciation and consciousness on topics which are becoming relevant and will be more significant in the future. All I3P start ups try to create economic value by simplifying, diversifying, educating, and increasing communication and awareness on important topics.

Almost all of start-ups taken in consideration had actual users who were profiting from their services and products. Number of customers or users changes according to their stage of development and their type of

product or service, in general terms it ranges between 20 to 200k. Their customers had started to state what they like and don't like about their products and start-ups were taking in consideration this suggestions and feedbacks in order to improve their solutions and increase customer utility.

Some of liked characteristics were:

- Inclusivity
- Simplicity
- Educational
- Works efficiently
- Create relationships

Some of not liked characteristics:

- Replicability
- Don't understand new technologies
- Not convenient
- Data visualisation
- Transparency

What is with value to discuss at this point is the fact that the highest percentage of start-ups focus on product development too much, they try to create complete product and forget to test their prototype in the market. Product should be tested in every phase and get feedbacks in consideration, in order to make the product friendly to use and really response to customer's needs. There was an example of start-up which created the product from the beginning to end without test and then put in market, when many problems were detected, and this hindered their success, eventually investor attraction.

Start-ups in I3P were in different development stages, (pre-seed, seed, Series A), but the overall situation is that they had created the product, launched in the market and were developing the product to improve its functionalities.

When asked when they start to look for investors, here things get interesting. From this question you can understand different perspectives of start-ups. Three of the main views are like below:

- From day 0

There were start-ups which when decided to co-found, or came up with one idea, before even putting their vision into life they started to look for people who would believe in them and support not only financially but also with their network, connections, advising and coaching. According to these start-ups this road has been successful and helped them to grow more confidently. But finding this people is very difficult process, you should have either existing network, be very persuasive, or be lucky at that time.

- As soon as they have an MVP (Minimum variable product)

A very good number of start-ups start looking for money as soon as they create product prototype and a matrix which shows that this product can develop from being just a prototype to something more. This case also is favoured by luck, or the fact your idea is disruptive, changing the equilibriums and created, developed perfectly. Investor capability to understand and value these opportunities is important as well.

- After launching the product

Most of the start-ups start asking for financial support after they have launched the product, started to have some users and feedbacks, so they have something to show to investors and convince them to invest. This phase is crucial because now you not only have to convince investors, but it is essential to get customer and user approval.

Another question asked in this section was about start-ups biggest achievement. Their accomplishments change from each other because of different goals and different development phases. The situation of their success is as below:

- Considerable number of users
- Good feedback from users
- Participation and winning in start-up competitions
- Creation of full and diversified team
- Launch of product
- Principal capital injections
- Successful equity crowdfunding

From their answers it can be realized that start-ups have different goals, are at different point in time, have just started to have their first successes, and establish new future goals. Among these goals the most present one is their desire to get more financial support by investors so they can grow, reach a stable phase and earn more money. Expansion in national and international level, also increase of customer number were the other future goals. Changing people perception and the way they approach to technologies was one of most impressive goals, from start-ups with vision to change the world and bring social benefit.

4.1.3 Question about Organizational Factors

At this phase of interview, participants were asked about organizational factors they possess, the ones they should develop and which from these factors is significant for attracting investor attention. Organizational factors are basic components for business success, so with these questions is tended to understand how much I3P start-ups take in consideration and try to improve these factors.

Organizational factors considered valuable from I3P start-ups to attract investors are these:

Factors with primary importance

- Passionate and enthusiastic entrepreneur

All start-ups agree that entrepreneur energy and their enthusiasm is important, they state that if entrepreneur would not be passionate about their idea, who is going to be. Their devotion, helps in encouraging team, increase their efficiency and impress investors while presenting their idea or work.

- Previous professional, job and entrepreneurial experience of all team members

Past entrepreneurial experience was highly mentioned as a factor which would help start up develop easily, take the right decisions and avoid mistakes learned from earlier entrepreneurial involvement. Quality of work delivered is higher and team is more self-confident.

- Technical and Managerial Skills of the Team necessary in developing and servicing the product

Start-ups state that technical skills are necessary for giving life to their ideas, and they should be present from beginning because they are skills which cannot be developed in the future like managerial skills which can be learned with experience and further knowledge.

- Goal alignment of all team members

It is crucial for start-up teams to have same objectives if they want to bring good products and go big in the market, having the same target helps the company consolidate and decrease agency cost which could be very harmful for start-up stage. There was an example of start-ups when one of co-founders left the team in the

middle of development process because he had other intention, and this slowed their activity and effected their progress.

These factors were important in their principles because are related directly to start up functionality, and if team is not able to work effectively this will be reflected in their results. Investors give importance to team characteristics, and a team not able to work well with each other will be a signal of failure to investors affecting negatively their decision of investment.

Factors with secondary importance

These factors were mentioned by a part of start-ups and were considered needed by start-ups to improve themselves but not affect directly investors decision.

- Solid management team
- Expertise and delegated authority
- Decision making structure

This factor had controversial answers some would state that it is important others the opposite, saying that star ups are fluid and horizontal.

- Use of managerial consultancy
- Profit from Business incubator(i3P) services
- Use business accelerator service

None of start-ups used business accelerator but had heard they are useful and consider engaging in this kind of services.

- Take mentoring and consultant advice

Almost all start-ups were open to mentoring and coaching, they are constructive for start-ups, but it is very difficult to find and actually be valuable.

As important organizational factors are most of start-ups were missing essential factors which they wanted to develop in the near future. Start-ups were looking for to create bigger teams with different capabilities. They wanted to earn more experience in general in the start-up world, and specifically in finding investors, to support this they wanted to get outside financial expertise to prepare their financials also help find new connections with investors. What is valuable to mention is entrepreneurs desire to improve themselves and their team, in management direction, they were aware of the fact they are mostly technical people and lacking managerial experience, therefore were looking for business and management consultancy. Operating control, solid management team, bigger physical space, business development and international environment were among other factors to be improved.

4.1.4 Question about Investor characteristics

I3P start-ups were in stage when they needed money and were looking for investors. The type of investor intended to attract were personal investor, business angel and venture capitalist. To criticize is the fact that start-up phase was not taken in consideration when deciding what kind of investor was needed, they would say directly we need venture capitalist or business angel, thing which doesn't coordinate with the rules how

investors function. Business angels are for early start up stage to help them grow, while Venture capitalist for further stages to help companies scale and grow bigger or go international.

Another problem was investors origin, most of start-ups didn't care about the place they were coming from. Start-ups were searching for investors who understand their industry, had vertical expertise, understand the market and it can be from anyplace in the world. Problem which would make their investor research more time consuming and challenging because business angels prefer to invest locally mainly in the same city or region, while VC can invest nationally but in smaller amounts.

I3P start-ups would accept both types of investors the ones who aimed to be mentors as well the ones who wanted to be partners. Mentoring was preferred generally, but partnering was considered depending on situation, with importance was their financial contribution.

Among other investors characteristics appreciated by entrepreneurs are:

- Investors with knowledge on market and industry you are operating
- Investors who share and grow with you
- Investors leaving you free to operate

It was highlighted that constructive control from investors would be good but not necessarily strict.

Start-ups were asked if they have considered any other alternative financing and almost all I3P start-ups had positive approach to equity crowdfunding, some of them would have successfully finished it, others were in the process and some were thinking of starting such a deal. This is very beneficial for start-ups lets them raise money at a very early stage in exchange of product utility, increases the possibility to become known among customers and helps in creating new relationships.

Start-ups were very specific in claiming why they needed investors, some of reasons are listed below.

- Provide financial resources
- Coaching and advising
- Learn from their experience and knowledge
- Profit from their network and relations
- Expand your business

4.1.5 Question on how start-ups attract investors

In this section a set of questions were asked about strategies that start-ups follow to attract investors, mainly questions focused on type of research they conduct, preparation of lists and sectoral preference research. Goal of this part is to show what start-ups do, to gain capital needed, what are the first steps they follow, do they have a logical following or just flow naturally.

What all start-ups mentioned firstly is the creation or existing personal network, according to them this was the first most important source of investor attraction.

The process of investor hunting was a mix of different techniques, combined not in the right order or best possible way, which made the procedure very complex and complicated. This difficulty was not because of technique problems, but mainly because of the absence of a clearly determined path with specific steps to

follow to attract investors. Polito I3P start-ups started their investor exploration journey by identifying investors they would like to invest in them, then control linked in pages for a detailed information, and write directly. It was stated that sometimes this technique has worked.

They also get advantage from Politecnico contacts and I3P events, also continuously take suggestions from their incubator. Participation in different start up events organized by Politecnico, I3P and other organizations gave the opportunity to create new networks, present what they were doing and ask for monetary and non-monetary help. Directly writing to investors was another technique followed which was stated to be successful sometimes. Research for every single contact they thought would give capital and support was mainly done through linked in profile.

Detailed personal research of investors, who they were, what they had studied, where they were from, what were their characteristics and requests were neglected because of limited time and experience obsolescence. List preparation, detailed investor sectoral preference research and their previous investment history, total amount of money invested, amount invested in this industry, were prepared very poorly by start-ups.

Most start-ups used a non-regular combination of below techniques in attracting investors:

- Directly write to investors
- Analyse investors from LinkedIn
- Start Up events
- Acceleration (Y combinator)
- Digital marketing, and being very active in social media

This process was very confusing for entrepreneurs and almost all expressed the need for professional support to help in identifying, contacting and creating deals with investors.

4.1.6 Questions about Financial factors

This segment of interview contained questions about financial part, how it is calculated, who is the person doing it, do they take or need extra help, and how they should prepare or what should include in financial statements to trigger investors. Intention behind these questions was to understand if start-ups knew and were trying to calculate financials in accordance with investors standards. I3P start-ups were missing necessary experience and knowledge to compute properly financial elements, but they were trying their best as much as it can be in a very ambiguous process.

The financial data which they gave weight in calculating because of importance this data have for investors are:

- Earnings growth
- Potential of solid return
- Stability
- Reasonable and realistic amount of money you require
- Exit strategy
- Return on investment calculation
- Dividends

Preparing financial plan is very challenging and requires expertise. While making financial plan Polito start-ups take in consideration what investors want to see and try to include elements like ROI, EBITDA and extra value generated every year. They say that this process is mostly an estimation which tries to be based on confidential data, they do macro and micro analysis of the sector and use hypothesis to confirm. There are live plan software's that help to build financial plan, also I3P provides an excel template to ease their work. Calculating pre- desired money evolution is quite impossible and start-ups use multiple methods to do the best estimation, it is very important not to overestimate because later problems will come for you.

The person preparing financial part was mainly an internal resource, team member who has some background and some basic knowledge on financials but not an expert, they would ask consulting from university professors and experts of financial parts in other companies. Some other start-ups had several advisers and were taking business and financial consulting from I3P services and other consultancy organizations.

Organizing a financial plan might be the most sensitive process in the life of start-up. These start-ups were initially trying to complete it themselves, which takes a lot of time and is very tiring. After understanding that their knowledge is not enough, all of start-ups were directed to professional help. Even though after financial support was taken, there was this tendency of entrepreneurs or team member to get involved in this process, get further education or improve their abilities in this direction.

4.1.7 Questions about business market and product

The interview continued with questions about market situation, how well start-ups know the market, what are their initial and future markets, what are they doing to get a good position in this market, what are characteristics that distinguish them from competitors in market and consequently give them competitive advantage. To overcome market difficulties high quality product is necessary, questions about product and its characteristics which attract investors and customers were discussed.

Initial market focus for I3P start-ups was mainly focused in close markets, SME in Italy were targeted. Their first intentions were to create a market presence, get known and create partnership system integrator. These characteristics are for start-ups which have a specific market, there were other start-ups especially fintech ones based on new technology, cryptocurrency, blockchain, carbon credit etc., for which there is no existing market and they have to work very hard and create a place for themselves in the big market. Another type of start-ups were the ones who were working in both directions B2B and B2C, most of these start-ups had problem on defining which path to choose first, and being confused they tried to carry on with both of them which made their operations difficult and affect success. They were struggling in defining an initial target, make an assumption and then test in market , after checking the results they could decide to focus on one or if not successful try the other way out, to see which of this ways would be disruptive and put the market into movement.

Future market focus for start-ups without an existing market, was to bring their idea to mass product, after creating the market, they wanted to be accepted, grow and expand in bigger markets. Start-ups with both services B2B and B2C were still not clear and deciding which direction to follow. While start-ups with an existing market, after growing national they wanted to expand internationally mainly in Europe, and their future dream was to touch USA market. What was interesting, were the start-ups mainly the ones which had developed useful apps, they wanted to expand in Asia because of importance Asian people give to technology and high number of apps they use in everyday life.

A list of market and product elements, and their importance for investors and company itself were evaluated and their comments are synthesised below.

- Considerable market size and profitability

Almost all start-ups were like minded for market size and its profitability, they stated that this elements affect directly their success, so are very important for company but for investors as well ,capital owners want to see that market is valuable and can generate money.

- Potential growth

Potential growth is a barometer for investment interest from public and private investors. I3P start-ups stated the importance of usage of methods to increase production, workforce and generate higher profit. New business should be able to show that they are able to move on from niche market to a greater operation volume.

- Right time and place

Time and place are important for start-ups, but investors don't care if you haven't studied well the market society readiness, or if you aren't able to make your idea acceptable among customers. I3P start-ups say a good previous market research, and luck are important factors.

- Company competitors and barriers to entry

The presence of powerful competitors and obstacles to enter market, makes start-ups life more severe. There should be good analysis of situation and knowledge on what we are going to face, state start-ups.

- Value as a core concept

Start-ups claimed that value is relative, in concept a product or service can be very valuable, but it might be the case when customers don't consider it important, causing start-ups to fail.

- Unique product (differentiation and competitive advantage)

All I3P start-ups were trying to develop products which are exclusive, bring value to society and able to create competitive advantage.

- Readiness of society(market) to accept your offer

This factor importance was relatively very low for start-ups, they declared that markets most of time are not ready for new and disruptive technologies even when they are ready, strong marketing ,WOM and other techniques are used to increase product likeliness and convince society for its usefulness.

- Presence of necessary resources to accommodate the growth of new market

Not much thought was expressed in this topic, which I find disturbing because if the product is completely new, like the case of electric car, when infrastructure for charging was missing, then this would cause problems for growth in market, also legislations are important factors which were not taken very seriously by start-ups.

- Industry productivity

Even this factor was not taken in consideration by start-ups. Again, industry productivity is important for you to be productive also a good indicator of your performance, you have to perform extremely well, actually overperform market competitors to convince investors you are good because in productive industry you are not going to get credits for only performing good instead you need to be great.

- Well - defined Canvas business model and business plan

This was the surprising element, Polito start-ups declared that business plans are not important for investors, and they don't care about them. Some others would say that this depends on market you are trying to enter, in Europe investor don't care, in USA they give more attention. Some start-ups tried to prepare qualitative business plan, give lots of work and time to their creation, but when facing market, they would understand that their business plan was not that good.

- Business structured for investment (equity ownership)

Business structure was important for young entrepreneurs because they depend on capital infusions and external investors contributions, so it is crucial to create business structure suitable for investments. They should be ready to give part or sometimes even all the shares of their business.

- Long term sustainability

To be able to be sustainable and hold that sustainability for a long time is necessary for becoming big and winning a position in the market. Start-ups ability to be flexible to continuous change in technology and purchaser's needs, to be focused on right strategic goals will make their life in the market, longer and more rewarding.

- Presence of intellectual property

IP was very important for start-ups who had developed new technologies and could earn economic value from IP. Some of start-ups had applied for IP rights and others would claim their importance and their intention for applying as soon as possible.

- Traction (act, proof of concept)

A clarification of this term: Business traction is related to the company's success and momentum it is gaining as the business grows. When, traction is missing sales dry up and customer base decreases, despite the work you put in enterprise. Measuring traction can be difficult but customer reaction and revenue can be considered as indicators of progress and victory. The idea behind traction is to grow the business while achieving a particular goal and objectives. Traction helps start-ups to understand their position in industry and where they aim to be.

The concept of traction is important not only to organization internal stakeholders, but also equally important to external stakeholders and mainly investors who are interested in these businesses. The higher the traction, higher is the investor interest therefore higher capital fund given to support your business success. (Anderson, 2018) This term was explained because during interviews I was shocked from the fact that except two or three entrepreneurs, most of them would not know importance and meaning of this term. The ones who knew expressed that it is fundamental.

4.1.8 Questions about presentation

The other part of interview continued with questions about presentation and pitch to investors. Questions like why presentations are important, what information do they put inside, how much time it takes preparing, who does the presentation, how it affects the investor, have they participated in pitching competition and their results were discussed together. These questions were created to realize how much entrepreneurs focus in presentation creation and its delivery to investors, in order to attract their interest.

Start-ups reported that presentation is one of the most important factors in the process of finding investors because it is the first contact you create and first platform with which you communicate your idea and what have you done. It helps you realize if people really understand what you are saying and get a first reaction if they like it or not.

Most of I3P start-ups, after identifying their target investors would start every time from zero and prepare customized presentation, which suit with their characteristics and what they wanted. Some others would prepare one generic and would adjust and modify it according to different investors style and personality. Creating presentation for the first time is very stressful and time consuming, information selection, at which amount and where to put it is the hardest part of this procedure. Firstly, it would take between 3- 4 weeks, then as time passes, you get suggestions and feedback, bring changes to presentation and earn experiences, making formation process easier and reducing time to 3-4 days.

One other question asked was about the main topics they putted inside presentation to see if they were coherent with what investors want to see. Different start-ups had individual structures; among them these are the most common elements:

- Mission
- Problem-solution
- Ecosystem presentation
- Market and competitors
- Team
- Pricing plan
- User acquisition
- Financial road map
- Result achievement
- Future Development
- Technology and patents
- Marketing

There were combinations of this elements in presentations, of course some of them more completed some others less but overall situation was good. Business focused on perfections and details would complete presentation with a video of product, or complete business plan and sometimes back slides which were useful in case investors had questions.

The right pitching of start-up was among the most fundamental elements for getting capital. Start-ups see the pitching as a way of transmitting their passion and idea. Person who pitched was very important, they should be aware of what they are doing and put a good emphasis on speech. Pitching was mainly conducted by entrepreneur or one of the co-founders, because investors want to see a face and relate it with the start up, and direct to them for every question or problem. The other reason is because entrepreneurs are the ones who can deliver the enthusiasm and passion that characterizes this start up project easily and better.

Participation in pitching competitions were very frequent among I3P start-ups, there were start ups which gave a presentation to investors once or twice in a week. This is a good sign because it is related to investor search and according to data every 8-12 weeks start-ups should pitch. Normally they pitched in Italian wide competitions, rarely in international ones. Most of staging was done in events organized by I3P, and other events like Bheros, CAN Piemonte and Premio Cambiamenti. The general part took positive comments, some special ones won first places in ICT sector and in European Innovation Academy.

To summarize this part, it is obvious I3P start-ups value pitching and give high effort in its preparation and delivery, they are continuously competing and participating in activities. What can be raised as a problem is if they are just trying to participate everywhere or select the ones which would be valuable for them. However, they are trying and if not getting investors, at least they are getting known, creating network and communication which if they are lucky to contact right people might lead to capital infusions and support for their business.

4.1.9 Question about Investments

This section contains questions about start up level of investments in the time period they were. If investments were taken, how, who, how much, and what amount they needed for further development were asked. If not, questions related to reasons of not getting investment, what they were doing to change and improve situation, were analysed. Start-ups hesitated to answer this type of questions and gave information just in general terms.

The amount invested in I3P start-ups varied between 50K to 1M, this amount changed according to type of investor, phase of start-up and quality of product they were giving. The people who had invested were mainly from personal connections, network, friends and family. Seeders Equity crowdfunding was used to raise capital as well. Business angel presence was very low, and mostly they gave money in exchange of partnership creation. Venture capitalists were rare among investors funding I3P start-ups. Some start-ups had started relationships with investor thanks to I3P suggestions and connections. These investors were mainly operating in the same industry as start-ups or belong to consultancy sector and all of them were from Italy.

The reasons given by start-ups for their failure on not getting capital, were related mainly to lack of market understanding, not selecting the right target, focusing too much on creation of product, not considering feedbacks and suggestions, lack of experience and replicability of their product or service. To change the present situation, firstly they tried to understand what they were doing wrong and get the necessary provisions to ameliorate. Start-ups were fighting to get investor attention every day by contacting with them and participating in different events. Their plans if they didn't get investor soon were to try to survive with FFF (Family, Friends, Fools) and earnings from their clients.

As far as it considers this part what can be spotted, is that I3P start-ups were confident in finding investors. Most of them had support of powerful investors, some of them had previous personal money from family or businesses and some others were positive that they would find capital soon. Some rare cases would state that they were in good position and didn't need cash injections from investors.

4.1.10 Questions about I3P

The final part of interview was about I3P impact in the life of start-ups incubated in this organization. In this section questions on, how supportive is I3P in finding investors, do they invest, do they give suggestions and consultancy were analysed. The aim was to understand why these start-ups had decided to be incubated under I3P and how this organization guided and supported them.

Start-ups stated that I3P would organize events and suggest them investors but wasn't helpful during the overall process of searching for investors. Start-ups said that you should be very successful yourself in order to get I3P attention and their support. I3P would help start-ups prepare for investments and for pitching, but not for capital attraction. Consultancy is provided by I3P and start-ups which had profited by this service were pleased and advise their fellow entrepreneurs to take advantage of it.

Young businesses were incubated in I3P, because it gives them a physical space when they can work, also being inside university campus was a big advantage for resource and knowledge usage. Most of start-ups team members were graduated from Politecnico and it is logical to get incorporated in Polito i3p, other organizations stated that good reputation of Politecnico di Torino and I3P as an incubation service were among reasons of selecting I3P as their incubator.

5 DISCUSSION

Within this case study research, the challenges and processes entrepreneurs face during their entrepreneurial journey to attract investors were analysed. Implementation of several interviews and direct observation of start-ups have provided adequate information to answer all research questions and reach the identified objectives. Consequently, it can be indicated that main research goal was met completely. Therefore, the preformed research has identified several issues to be discussed in this part.

5.1 Discussion on start-up sector and type

The first topic to discuss concerns start-up types and sector in which they operate. According to research provided in literature review, even though at the beginning of technology disruption, lifestyle start-ups focused on games, sports and personalization were very popular, but with technology improvement the orientation changed and people were looking for more sophisticated solutions and nowadays start-ups focused on utility sector, food and service, IT, business finance and entertainment are more important to consumers. (Tiwari, n.d.)

Analysing the portfolio of start-ups in I3P incubator, it is clearly noticeable that the number of lifestyle start-ups is very low, and this can be related to the type of incubator I3P is, positioned in very professional and technical area such as Polito campus. This can be an indication that this young entrepreneurs from Italy have understood what market wants and focus on that and other future prospect topics. The overall portfolio as well as the major part of start-ups taken in analysis are mostly focused on new technological solutions, such as cybersecurity, cryptocurrency, blockchain, digital solution, software and management consulting. These are the futures start-ups and are very important for society development but because of the high uncertainty that characterises technology change, and lack of investor and people knowledge for creating a consumer base may bring difficulties on successfully attracting capital and establishment of these businesses. In the I3P area it can be sensed a hunger for new ideas and technologies which is very good for the future, but this leaves less attention to other everyday topic on which new solutions might be needed and they can be more successful and easily accepted by mass. Even though the process of idea generation is very complex and subjective a suggestion to entrepreneurs would be, aiming to create new ventures to focus on everyday life problems that need a solution and are related to business finance, shopping and entertainment, topics more closely to people life. Literature brings facts from investors and successful entrepreneurs that it is simpler to get financial support and grow big if start-ups take an existent solution and improve or change it rather than starting from zero.

When asked about their future dreams and what they expected from their venture most of the entrepreneurs would state that their start-ups were built to be sold and they would search for a way to be acquired from other big companies. According to literature this can be justified by the need of money (Tiwari, n.d.) or even by the character of entrepreneurs which get bored easily and continuously search for new things and want to develop new ideas (swiss preneur). However, this does not vague the fact that the start-ups optimism or perspective for becoming very big or even unicorns is very small, and they are not motivated or passionate enough about what they are doing.

5.2 Discussion on sources of finances

The interviews confirmed many previous findings of academic research into the sources an entrepreneur uses to finance its business. The findings of (Markova & Mircevska, 2009), are confirmed by the interviews. Most of the start-ups stated that the main sources of finance were friends and family, private investors, business angels and venture capitalists. In addition, a new source of finance for start-ups is crowdfunding. Entrepreneurs value these investors because of their monetary contribution and the risk they undertake by investing in early phase start-ups but as well for coaching, advisory, experience and knowledge, network creation and business expansion abilities. Furthermore, the majority of the interviews confirmed previous research findings, which stated that these investors in exchange need a share of their equity, and most of the entrepreneurs about 70% were ready to collaborate, give up some ownership and involve into partnership relations with investors. I3P entrepreneurs follow the pecking order theory and initially try to support financially their company by their own savings and capital injections by close family and friends circle. Also, it is confirmed that also politico start-ups struggle to find investors that understand the sector in which they operate and have some previous experience. However, in this research different from literature statements it is noticed entrepreneurs neglect about investors location, important factor especially related to business angels which mostly prefer to invest locally. Even though the investment they had ensured previously were mainly from the same city or Italy in general, when asked, start-ups would state that the origin is not important for them, vital is the fact they give money. This may cause problems in creating a scope of possible investors and spent time on business angels which don't like to invest in other territories.

Crowdfunding was very popular among I3P start-ups, some of them had successfully completed equity crowdfunding or reward-based crowdfunding and almost all were considering initiating one. As the literature proves, (What is Crowdfundng, 2018) the reason of preferring this type of investment compared to others is because of reducing time and cost for searching investors, also the possibility to perform this investment process in early phases and create opportunity to validate product and get customer, investor attention. However, the reason they were reluctant to involve in such a process, is because of necessity to have some personal network and initial support from investors who can support firstly and serve as influencing factor in attracting other investors attention. As the majority of start-ups in politico are founded by groups of students who study or are graduated from polytechnic, their networks are not wide enough to start crowdfunding, but in this case some of the entrepreneurs saw their presence in I3P as an advantage, by which they could help create some initial connections for starting.

5.3 Discussion on investment criteria

Many start-ups need capital therefore they look for different investors which can financially support them. On the other side, these investors have many start-ups asking for their help and the evaluation process is very crucial. The investment criteria changes in different types of investors as well as in different individual investors although they may belong to the same group.

From literature there is proof (Norton, 2000), (Albers, 2006) that investors pass in their filtration process many investment ideas and only a small part of them successfully get capital. Even though till now there is no clear, consolidate and standardized filtration process, all investors have their requirements starting with the general need to have a return on their investment and continuing with particular criteria related to different investors. After interviews and close observation of I3P start-ups it can be concluded that they were working very hard to create high quality products, effective and collaborative teams, which means that ,mainly their focus was on developing their business based on some established goals. During their development entrepreneurs take in

consideration general elements, which they had been suggested or learned during their experience, like forming a professional team, provide good product or service, have unique ideas with value as a core concept. Then after creating their MVP, sometimes even without testing, mistake done by some entrepreneurs, they would start directly searching for investors. In the process of getting in contact with investors in difference from literature, start-ups didn't focus to much on their requirements but instead they worked to bring business in a particular level.

Besides the fact that I3P start-ups don't build their ventures, bearing in mind what investors would want in the future, one other topic to be discussed is the fact that they were only looking for investors. Which means start-ups were in different development stages and as literature proves different development stages need different investors, (Cremades, *The Pros and Cons of Bootstrapping Startups*, 2019) the number of start-ups which were aware of this was very small. Mostly when asked about the type of investor they wanted to attract, they would list all the investor types, specifying that it doesn't matter the investor type as long as he or she invests money. Leading to conclusions that they didn't take into consideration different requirements of different investors types. They would follow some general criteria and focus on building an affirmed business.

However, as the say says "don't look at what they say but look at what they do". The same situation can be claimed for these start-ups, because in general terms they would answer to the questions as above. But when entering into detail and touching all the elements of their business it can be seen that they were following all the criteria or requirements in a mixed process without being aware.

5.4 Discussion about strategies entrepreneur follow to attract capital

Start-ups at early stages in order to develop and expansion further, need capital injections. From the very beginning, start-ups bear in mind that they are financially constraint and will need investor contribution. That's why they look for investors which understand and suit to their business mission, goals and start presenting their ideas to convince investors. On the other side investors take many propositions in a day, which they pass through a filtration process where start-ups are evaluated according to come criteria which are relative to investor. (Albers, 2006) But, in a general observation from literature research can be concluded that somehow these requirements in themselves are the same among different investors but have small changes, which is normal in human character. To understand and compare the both views, the interview guideline was constructed based on investor main requirements, but in an open way to get entrepreneur opinion.(see Appendix C). From interview process, it can be confirmed the major part of literature information and the fact that I3P start-ups even though not in a direct way, they follow strategies and development paths that will lead them to successful capital attraction.

Literature provides facts that entrepreneur's passion and commitment are identified as the most influential criteria in investment attraction. (Ward, 2020) Interview process and observation of teams and entrepreneur behaviour also lead into conclusions that I3P start-ups entrepreneurs are young people about 27-40, who work very hard and passionately on their idea. During interviews it could be sensed an enthusiasm in their voice and desire to present and explain what they were doing to many people. Individual character of entrepreneurs is different for each of them, but all entrepreneurs are characterized by the same the enthusiasm and ethic for their work, also most of them are people who think out of box, get bored easily and continuously want to do something different. I3P entrepreneurs are people with vision and dreams, who take inspiration and share admiration for various successful entrepreneurs in the world like Steve Jobs, Bill Gates, and Jeff Bezos. Entrepreneurs were very optimistic for their start-up future and had contributed most of their collected money from previous works and had high support from friends and family, this is a positive indication for angels.

Literature shows that one other essential factor for investors is passion and commitment in start-up team as well. This part in interview guideline was covered by questions related to organizational factors. I3P entrepreneurs attached great importance to their teams and their functionality. Among organizational factors considered valuable from I3P start-ups to attract investors are, previous professional job and entrepreneurial experience of all team members, technical and managerial skills of the team necessary in developing and servicing the product and goal alignment of all team members. The start-up teams were formed by an average number of 7 to 10 people, from which 2-3 were technical people mainly graduated from Politecnico who developed the product and other members had different specialities. The team members were young, energetic people who were enthusiastic to do the work they wanted in a flexible environment and were willing to put all the necessary effort for the success of their idea. Among team members there was harmony, and all supported and protected rigorously what they were doing. However, many start-ups were lacking essential factors, operating control, solid management team, bigger physical space, business development and international environment were among other factors to be improved. Even though literature states that consolidate team is a crucial element, it is very difficult for start-up at very early stage to create complete teams, it is also important the fact that I3P start-ups were aware of these factor importance and were working their best to improve and develop more.

Business plan is another element to be discussed. From literature there is information that investors want a concrete strategy demonstrating practical approach to achieving measurable objectives. The construction of a strong and well-structured business plan supported by proof is essential to secure capital. However, this is not the case of I3P start-ups, they all work as an initial step in preparing a good business plan, but state that in reality investors, they have been in contact with, don't care for business plan. This is in contradiction with literature where business plan importance for investors is clearly specified.

Part of the company's value resides in its intellectual property, and investors expect the management team to take the measures required to safeguard the innovations of the business. (TEmpire, n.d.) Start-ups in I3P are mostly technology based and intellectual property is very important. Some of start-ups had assured the necessary patents or were in the process of filling applications. The ones who had present patents claimed that they have helped during presentations in impressing investors. Nevertheless, start-ups faced difficulties during this process because of high costs and bureaucracy problems in Italy.

It is with great importance to discuss one of the most crucial factors for investors such as financials. Investors certainly want to know how their invested money will be used, they require reasonable evaluation of the money required depending on the phase of development, type of product and existent traction. Preparing financial plan is very challenging and requires expertise. (TEmpire, n.d.) While making financial plan Polito start-ups take in consideration what investors want to see and try to include elements like ROI, EBITDA and extra value generated every year. They say that this process is mostly an estimation which tries to be based on confidential data, they do macro and micro analysis of the sector and use hypothesis to confirm. There are live plan software's that help to build financial plan, also I3P provides an excel template to ease their work. Calculating pre- desired money evolution is quite impossible and start-ups use multiple methods to do the best estimation, it is very important not to overestimate because problems will come with that. I3P start-ups have a lack of knowledge and experience in preparing finances that is why they get professional help from I3P or a financial consultancy organization. The literature data is confirmed as entrepreneurs state that sometimes what investors are interested to see is only financials, if evaluations are not good, they would lose the chance of getting finance even the product was unique and highly valuable.

Investors want entrepreneurs to state explicitly, the elements from which the product or services consist of, as well as elements that make their product unique with a great performance. (Kingston, 2016) In accordance with this, all I3P start-ups were trying to develop products which are exclusive, bring value to society and able to create competitive advantage. Yet, start-ups claimed that value is relative, in concept a product or service can be very valuable, but it might be the case when customers don't consider it important, causing start-ups to fail.

The form in which the management team delivers the business plan whether in person or in writing will make all the difference in gaining sponsorship. (Ward, 2020) Statement also proved by politico start-ups, which see the pitching as a way of transmitting their passion and idea. They dedicate specific time to presentation preparation and customize them according to different investors. To make sure for presentation and pitch quality they would get assistance from I3P services to perfect it more. Pitching was among the element's entrepreneurs stated that affected the most investors, mostly the person presenting was the entrepreneur or one of the cofounders because of the knowledge and passion he has on his idea.

One other important factor for investors is how the start-ups reach an exit. I3P start-ups confirmed the significance clearly explaining the business exit strategy, they involved this factor in their presentations because most investors asked for the exit strategy.

5.5 Discussion on incubators

Literature states that incubators play a very important role in start-up development in early stages. Incubators support entrepreneurs by offering workspace, seed funding, mentoring, and training as well as other benefits to address some of the common issues associated with running a start-up. This research actually is focused in one particular incubator such as I3P. One part of the interview guideline in the process how start-ups attract investors, concerned incubator role in the life of these start-ups. From interview answers and analysis, all the information provided in literature can be confirmed.

I3P is the case of incubators which are associated with universities, as it is formed to support science-based businesses in relation with university researcher and entrepreneurs in Politecnico di Torino. I3P is one of the best university business incubators with very good ranking position in Europe and in world. The entrepreneurs and teams of start-ups incubated in I3P are very satisfied from their services. The advantages I3P brought to start-ups are related to network creation and connection to investors, most of entrepreneurs stated that I3P suggested investor contacts and continuously organized events when different investor take part, giving start-ups the possibility to start a relationship. As well their incubation in high standard incubator such as i3P was a signal of quality for investors. I3p has a great portfolio of coaching advisors in aspects of business and finance which is formed by university professors, field experts and previous successful entrepreneurs.

Start-ups claim that I3P helped them with coaching and advisors in different aspect of the business, in business plan preparation, and especially in professional advices in financial part. Also, start-ups valued the strategic position of politico in university campus where they could reach human and knowledge resources. I3P provided to them a very convenient working space, with low cost and all the necessary facilities starting from labs for testing their products, conference and meeting rooms, internet, and individual work offices. I3P is a science-based incubator and almost all start-ups have something in common and it was natural in between start-ups collaboration and partnership with each other, an advantage assured by I3P from bringing many start-ups with different abilities together. By entering an incubator, start-ups have access to all of these companies and individuals, making networking easy and accessible. So, they gain connections, referrals, new business opportunities and often exposure in market.

In difference with literature, entrepreneurs said that I3P didn't invest money on start-ups, but they offered coaching and initial contact but don't directly suggest investors. I3P helps in development and preparing process of financials, business plan and presentation, but in impressing investors they were alone with their idea.

5.6 I3P Start-up road to investor

Start-ups follow many paths and different strategies to approach to financial investors. The road to investor is a very complicated and mix process, non-of the start-ups has a particular path they follow, but from overall interview analysation and observation carried, a synthesised generalization of this road is shown.

- Self-Preparation
 - Build a team with professional members with previous experience and necessary technical and managerial skills to develop the product
 - Develop unique products with competitive advantage
 - Test MVP, continuously change and develop based on customer feedback
 - Articulate business vision and its potential for growth
 - Structure business for investment
 - Get assistance from experts in financial projection preparation
 - Build good relationship with incubator
 - Participate in events
 - Create personal network and connections with Investors
 - Direct contact to investors through (LinkedIn, Start Up events and social media)
 - Get to know their potential investor
 - Prepare customized presentation with support of advisors containing:
 - Mission
 - Problem-solution
 - Ecosystem presentation
 - Market and competitors
 - Team
 - Pricing plan
 - User acquisition
 - Financial road map
 - Result achievement
 - Future Development
 - Technology and patents
 - Marketing
 - Pitch passionately
 - Invest your own money
 - Have family, friends or some initial close investor support

6 CONCLUSION

The impact of young entrepreneurial activities on innovation curves and the economy itself has been one of the most evident phenomena within the modern economy, striking media, society and academia fireball attention. While a large part of enterprises plays only a marginal role, small high-tech start-ups have a significant effect on economic growth, by contributing to employment and producing most of the net new jobs. Start-up's involvement in breakthrough technological innovation has changed the complexity curve and extended the productivity frontier of companies and society. They have shaped society's ideology on innovation and technology, facilitating human orientation for the near future.

The increasing importance of these establishments has caused new start-ups to be created daily, but the process of developing successfully, bringing the above-stated advantages and outsized value to society is very long, tiring and needs considerable backing. As the overall entrepreneurial process from idea generation to business plan execution and market presence is crucial for start-up sustainability and success, one other significant part of this process is funding and fundraising. These young start-ups, to be future unicorns like Bytedance, Airbnb and SpaceX need financial and motivational support from investors. In recent years, academic researchers and generalist media have focused on investor characteristics, limitations and their criteria for investing in young businesses. More recently a new highlight was set on the figure of entrepreneurs and processes they followed to successfully develop start-ups, further research has been performed on critical success factors and the main reasons why start-ups fail. Even though study work has been done on different topics, there is still room for research in this complex system and mainly a new view on start-ups' perspective on how to attract investors.

This research focused on how start-ups intend to approach financial investors. The aim was to understand and analyse entrepreneurs' ideologies, structures, strategies, and paths they followed to search for investors, interact and create financial deals with them. From previous work, it is clear what investors want, they have particular characteristics they are looking for, but they invest very little money and the number of ventures able to raise capital is very low. This implicates complications in their relationship; therefore, this case study objective was to learn and analyse in detail entrepreneurs' attitude in the process of investor finding and check what is missing in their rapport.

This research seeks to analyse the challenges start-ups face in the process of funding their business. Hence, the main research question of this study was: "How and what methods, paths, strategies do Polito I3P start-ups follow to improve their overall performance and successfulness in attracting capital?" To support the main research question and get a clearer understanding, certain other questions were asked, such as:

- Do they follow any specific strategy?
- Do they know what investors really want and try to comply with them?
- Do they give proper work and attention to capital attraction or they are most focused on start-up development and live it to luck, and hope some goodhearted BA or VC will invest in them?

These questions supported by the right methods guided the whole research, their answer satisfies expressed objectives and research questions. To better understand and provide a full picture of the process, a comprehensive analysis of literature and other open-source data was carried. It identified theoretical conclusions from this field of research and encouraged further exploration of the research questions and research strategy formulation. This analysis implemented a case study research focused on Polito I3P start-ups. During this study qualitative methods were used to collect data through direct observation of participants and 17 interviews conducted with start-up teams and entrepreneurs. Few methods of secondary data collection like website data analyzation were used. To improve transferability and reliability, clear interview questions were asked, information consistency was checked, and data recording was realized.

The empirical research execution covered three specified stages. The elaboration of interview guide questions in English, a copy of these questions in Italian was created to make more comfortable start-ups that preferred the Italian language. The main stage of the research was the interview and direct observation of 17 founders of start-ups and their teams. Finally, the last step was the analysis of information collected and an overview of some investor interviews supported by web-based data to compare both views and, see where start-ups perspective stands in relation to investors.

The interviews revealed that the process of attracting investors and raising money for start-up further development was very challenging as well as the most important and difficult stage in the life of a venture. Entrepreneurs stated that this process is a combination of factors and different start-ups aspects that lead to successful capital attraction. New connections and personal networks were among the most mentioned factors.

The start-ups approach to attract investors was a continuous working path that started from the idea generation and continued until they were able to successfully get financial support. The first factor indicated from the interview discussion was entrepreneur characteristics like passion, enthusiasm and hard work. These qualities are important to create the right team to motivate and to impress investors. Related with the entrepreneur's personality it can be concluded that Polito I3P has entrepreneurs who are people with technical skills, mainly graduated from Politecnico di Torino and with some previous entrepreneurial or corporate experience. These entrepreneurs think out of the box, continuously focus on changes, new technologies and work very hard to bring out the best from themselves, their team and their business. Literature research has shown these elements as crucial for attracting investors' first attention. To bring this process to perfection management skills melioration is one other factor that entrepreneurs wanted to develop further. Together with this, the overall organizational factors were stated to be important, even though they are not related directly to investors they affect start up functionality, which leads to failure if team members are not able to work effectively together. To make a smooth and effortless path to investors, start-ups focused to create teams that are driven by the same goals and have technical and managerial skills necessary to develop their products or services. Operating control, solid management team, bigger physical space, business development, and international environment were among factors to be improved.

Road to investors continued with the creation of profitable products and positioning in the right market at the right time. Investors want to see that the industry in which operating, and product presented are sustainable and profitable. From interview analysis can be inferred that I3P start-ups aimed to earn a presence in Italy markets initially and after that to go international mainly in the USA and Asia. Their first intentions were to create a market presence, get known and create partnership system integrator. These characteristics are for start-ups which have a specific market, there were other start-ups especially fintech ones based on new technology, cryptocurrency, blockchain, carbon credit, etc., for which there is no existing market and they have to work very hard and create a place for themselves in the big market. They stated that start-ups should show potential growth and be able to move from niche markets to a greater operation volume, to convince investors they are worthy to be invested. Even though market importance was present in the minds of all start-ups the number of them which has started this journey after doing a clear market and industry research was very rare. They were driven by ideas for which their core and unique value is trivial, instead, products should have values that attract investors. Business plan and Canvass business model are not relevant for investors according to start ups, while other elements such as long-term sustainability, business structure, intellectual property and presence of necessary resources to accommodate the growth of new market are crucial and taken into careful consideration.

The award of the most complicated step in this process is won by the financial part. As most of the calculations are estimations, good macro and micro analysis of the sector and careful financial methods usage is a necessity. Preparing a financial plan is very challenging and requires expertise. While making financial plan Polito start-

ups take into consideration what investors want to see and try to include elements like ROI, EBITDA and extra value generated every year. Almost all start-ups take consultancy from professionals in financial preparation, because they lack knowledge and abilities. Entrepreneurs and other team members are taking further education in this direction to make the process easier.

After structuring and developing icebergs invisible part, time to pass to visibility, direct contact and communication with investors. I3P start-ups were aware of their need and started to look for investors from day zero, or after developing MVP and launching the product. The analysis of their views is concluded in one single road they follow as below:

- Decision of investor type

Start-ups need different investor type, for different phases of development. I3P entrepreneurs focus more on private investors and business angels on early stages, for scaling and further improvement venture capitalists are considered. Equity crowdfunding is also popular among start-ups here in Polito.

- Research of investors

The more careful teams would take dedicated time and do research for investors that operate in their industry and are more likely to invest in this type of venture and their current stage. They use their LinkedIn profiles for getting information, take into consideration different suggestions from professionals and web-based data to create a clear profile for investors they would like to attract.

- Creation of investors lists

After investigation, lists of appropriate investors are created according to their importance and likelihood of investment.

- Connection and communication

I3P start-ups mostly write to investors from LinkedIn because they say it is more professional, but some others stated that they directly mailed to them and this technique has resulted also successful.

- Participation in Presentation events

This step was vital, and start-ups were continuously looking for and taking part in organized events in Italy and abroad. This is the best way to give a first impression to investors, because is their first contact with idea and gives the possibility for meeting and discussing further.

- I3P suggestions

Some start-ups valued support in the preparation process for investment by providing excel formats to prepare the financial part. Professional consultancy in business and financials is given as well. To start ups designed to be successful suggestions are given by I3P on where to search for investors, how to reach them and use their contacts to create deals.

The final step in finding money is to draw investor attention through an effective presentation. Presentation is important because it is the platform through which you deliver your idea and your work to investors, customers, and supporters. The structure of presentation differs, but the main elements acknowledged are mission, problem-solution, market and competitor, financial roadmap, result achievement, future development, technology, and patents. To prepare their pitch start-ups take necessary time, its creation for the first time takes 4- 5 weeks, a generic presentation is created which is developed and customized through time according to investor characteristics. The person who delivers the pitch is mainly an entrepreneur, intending to deliver their passion and to be the representative figure of the start-up, where investors can contact for every situation. To

summarize this part, pitching and presentation are very important, high effort and work are concentrated in it as one feature that has direct contact with investors and could induce him to invest.

Incubation in I3P is seen by start-ups as a sign of success and good quality. I3P is one of the most successful incubators in Italy which has won many awards. Its good position inside the campus where human and knowledge resources are present are among the advantages that this organization brings. Consultancy, physical space, tools and equipment, event organizations, support, and suggestions are provided too.

The hypothesis was set in the methodology part: “Understanding start-up viewpoint may bring new proof work to the research market, therefore positive effect for start-up overall performance and successfulness especially in attracting capital. After analysing and discussing the main points of this research it can be stated that the hypothesis can be partially confirmed. The first part of the hypothesis needs time, because the thesis has to be published first and have some reviews in order to reach into a conclusion. However, the possibilities are very high, as during research work and contact with academicians in ResearchGate to ask permission for paper usage, they found the topic very interesting. For the second part of the hypothesis, time is necessary as well. Yet, from the communication with some start-up entrepreneurs, positive feedback was received, they appreciated the work, and stated that it helped to see what they were missing in comparison with other start-ups and investor view. They were considering changes and hope for capital to come soon.

Finally, Polito I3P start-ups indicate that the process of finding investors is complex and a combination of many factors which are related to their business idea and its development, luck, industry performance at that time, investor monetary situation, etc. If their perspective is considered, they clearly know investors value, and try from the very beginning to structure businesses that will comply with their principles and criteria. Entrepreneurs focus on self-development, creation of diversified and expertise teams, take professional help in the financial part, products that create value for users, give time to presentations and pitch to impress, and carefully select incubators as signals of high quality. Start-ups are aware they lack many elements, but they are continuously taking suggestions, educations, consultancy, trying to develop and integrate themselves more in start-up world.

6.1 Contributions

This thesis brings a contribution to existent academic knowledge in fields off: entrepreneurship journey, start-ups success factors, start-up failures, and start up path to get money. The research brings a new view in the academic information, by bringing start-ups whole process of capital attraction. This thesis has revealed that start-ups perspective should be considered more, and might contribute in increasing the number of works, so investors can see the reality from investors eye and create a comparison value for investors and entrepreneurs to check where they are and what can be to perform better and increase their overall performance. A more detailed quantitative study can be considered as future work, which would measure the impact of the factors that were identified in this thesis. The indicative role of a certain combination of factors could be measured for several groups of start-ups, entrepreneurs and a further classification of factors and their impact on investor attraction could be of high interest.

Bibliography

- Aberdeen, T. (2013). Case study research: Design and methods (4th Ed.). Thousand Oaks, CA: Sage. In R. K. Yin, *Case study research: Design and methods (4th Ed.)*. Thousand Oaks, CA: Sage.
- Act 365! (n.d.). Retrieved from What is a business incubator and how can you benefit from one: <https://www.act365.com/what-is-a-business-incubator/>
- Albers, J. J. (2006). *Do you have an Investable business case? Your story versus what VCs really want to hera*. New York.
- Alexy, O. T., Block, J. H., Sandner, P., & Ter Wal, A. L. (2011). Social capital of venture capitalists and start-up funding. *Small business economics*.
- Anderson, C. (2018, November 08). *Chon*. Retrieved from What is business traction?: <https://smallbusiness.chron.com/business-traction-22786.html>
- Areitio, A. (2018, Decembre 13). What is a startup and how is it differnt from other companies(new and old)? *The Venture.City*. Retrieved from <https://medium.com/theventurecity/what-is-a-startup-and-how-is-it-different-from-other-companies-new-and-old-428875c27c29>
- Berger, A. N., & Udell, G. F. (1998). The economics of small business finance: The roles of private equity and debt markets in the finacial growth cycle. *Journal of Banking and Finance*, 61.
- Bhat, A. (n.d.). *QuestionPro*. Retrieved from Qualitative Research: Definiton,Types,Methods and examples: <https://www.questionpro.com/blog/qualitative-research-methods/>
- Blank, S. (2013, June 24). The 6 Types of Startups. *The Wall Street Journal*.
- Boitnott, J. (2019). How to attract start-up funding according to top venture capitalists. *Founders Project*.
- Boot, A. W. (2000). Relationship Banking: What do we know? *Journal of finacial intermediation*, 7-25.
- Bradshaw, D. (2018). Aligned for sucess- A guide to what investours look for in a startup. *Finance*.
- Bricker, J., Henriques, A., Krimmel, J., & Sabelhaus, J. (2016). *Measuring income and wealth at the top using administrative and survey data*. Brookings papers on economic activity.
- Brooks, A. W., Huang , L., Kearney, S. W., & Murray, F. E. (2014). Investors prefer entrepreneurial ventures ptiched by attractive men. *Proceedings of the national academy of scineces of USA*.
- Brown, J. D., & Earle, J. S. (2017). Finance and Growth at the firm level: Evidene from SBA loans. *The journal of finance*.
- Brush , C., Carter, N. M., Gatewood, E. J., Greene, P. G., & Hart, M. (2009). *The Diana projet: Women Business Owners and Equity Capital: The myths dispelled*.
- Burhouse, S., Chu, K., Goodstein, R., Northwood, J., Osaki, Y., & Sharma, D. (2014). *2013 FDIC National Survey of unbanked and underbanked households*.
- Bush, G. (2009). Small Business.
- Calic, G. (2018). Crowdfunding. *Sage knowledge*, <https://www.merriam-webster.com/dictionary/crowdfunding>.

- Callegati, E., Grandi, S., & Napier, G. (2005). *Business Incubation and venture capital. An international survey on synergies and challenges*. Rome: IKED.
- Calopa, M. K., Horvat, J., & Lalic, M. (2014). *Analysis of financing sources for start-up companies*. Retrieved from <http://cromotion.net/76/kako-financirati-web-startup/>.
- Carter, S., & Rosa, P. (2006). The financing of male and female owned businesses . *Entrepreneurship&Regional Developmen,An International Journal*.
- Carter, S., Wilson, F. M., Shaw , E., & Lam, W. (2007). Gender,Entrepreneurship, and Bank Lending: The criteria and processes used by bank loan officers in assesing applications.
- Cassar, G. (2004). The financing of business start-ups. *Journal of business venturing*.
- Chatterji, A. K., & Seamans, R. C. (2012). Entrepreneurial finance, credit cards and race. *Journal of financial economics*.
- Chetty, P. (2016, September 11). *Project Guru*. Retrieved from Limitations and weakness of qualitative research methods: <https://www.projectguru.in/limitations-qualitative-research/>
- Clercq, D. D., Fried, V., Lehtonen, O., & Sapienza, H. J. (2006). An entrepreneurs Guide to the Venture Capital Galaxy. *Academy of Management*.
- Commons, S. (n.d.). What is a startup? Retrieved from <https://www.startupcommons.org/what-is-a-startup.html>
- Cook, S. (2018). What is a strt-up? *Startups*.
- Corbetta, M. (2018). *Start-up Survey on Italian innovative Start ups*. Ministry of economy and development .
- Cremades, A. (2018). How funding rounds work for start-ups. *Forbes*.
- Cremades, A. (2019). The Pros and Cons of Bootstrapping Startups. *Forbes*.
- Crossman, A. (2020, February 02). *ThoughtCo*. Retrieved from An overview of qualitative research methods: <https://www.thoughtco.com/qualitative-research-methods-3026555>
- Dess, G. L. (n.d.). Clarifying the entrepreneurial orientation construct and linking it to performance. *The academy of management review*.
- Didar, A. F. (2016). *Role of start-ups in economic prosperity*. Retrieved from Startup grind: <https://www.startupgrind.com/blog/role-of-startups-in-economic-prosperity/>
- Dimov, D., & Clercq, D. D. (2006). Venture capital investment strategy and portfoloi failure rate: A longitudinal study . *Sage journals*.
- Entrepreneurship is key to economic growth for cities*. (2018, April 7). Retrieved from Digital splash media: <https://digitalsplashmedia.com/2018/04/entrepreneurship-is-key-to-economic-growth-for-cities/>
- Freear, J., Sohl, J. E., & Wetzal, W. E. (2002). Angels and Non-Angels: Are there differencies? *Journal of business venturing*.
- Gaille, L. (n.d.). *Vittana Personal finance*. Retrieved from 23 Advantages and Disadvantages of qualitative research: <https://vittana.org/23-advantages-and-disadvantages-of-qualitative-research>
- Guignard, Q. (2017, January 22). Start-up life cycle: 4 key steps. *Hackernoon*. Retrieved from <https://hackernoon.com/startup-lifecycle-4-key-steps-c43f2bec0410>

- H., M. L. (n.d.). The present and future roles of banks in small business finance. *Journal of banking and finance*.
- Harkins, D. (2017, September 29). *Startup funding options: Strategic Alliances*. Retrieved from <https://www.mrharkins.com/startup-funding-option-strategic-alliances/>
- Harroch, R. (2019). 15 Key Questions Venture Capitalists Will Ask Before Investing In Your Startup. *Forbes*.
- Hsu, D. H. (2006). Venture Capitalists and cooperative start-up commercialization strategy. *Management Science*.
- Hsu, D. H. (2007). Venture Capitalists and Cooperative Start-up Commercialization Strategy. *Managemet Scinece*.
- Hudson, E., & Evans, M. (2005). A Review of reseach inot venture capitalists' decision making: Implications for entrepreneurs, Venture capitalists and researchers. *Journal of economic and social policy*.
- Importance of finance to your business*. (2019, March 21). Retrieved from Startup magazine: <http://thestartupmag.com/importance-finance-business/>
- Italian company formations*. (n.d.). Retrieved from What is an innoavtive start-up company?: <https://www.italiancompanyformations.com/services/set-up-a-company-in-italy/laws-innovative-start-companies-italy/>
- Italian innovation day*. (n.d.). Retrieved from Creating the ideal environment for innovative start ups: <https://italianinnovationday.weebly.com/italian-startup-ecosystem.html>
- Jee, C. (2018, November 29). *Tech World*. Retrieved from Accelerator or Incubator: Which is best for your start-up?: <https://www.techworld.com/startups/accelerators-incubators-are-incubators-or-accelerators-right-for-your-startup-3636522/>
- Jr, R. A. (2012). *Government and start-ups*. Wiley Book.
- Kingston, P. (2016). 4 Ways for start ups to attract VCS. *Entrepreneur*.
- Koellinger, P. D. (2008). Why are some entrepreneurs more innovative than others? *Small Business Economics*.
- LiPuma, J., & Park, S. (2014). Venture capitalists Risk mitigation of portfolio company internationalization. *Sage journals*.
- Markova, S., & Mircevska, T. P. (2009). Finacing options for entrepreneurial ventures. *Economic Interferences*.
- Mason, C. (2007). Informal Sources of Venture Finace. In S. Parker, *The lifecycle of entrepreneurial ventures* (pp. 259-299). Glasgow.
- Mason, C., & Harrison, R. T. (n.d.). Business Angel Networks and the development of the informal venture capital market in UK. Is there stilla role for the public sector? *Small business economics*.
- Mason, C., & Stark, M. (2004). What do investors look for in a business plan? *International Small Business Journal*.
- McDougall, P. P. (n.d.). International versus domestic entrepreneurship: New venture strategic behaviour and industry structure. *Journal of business venturing*.
- Medlin, M. (2016). The six stages of startups life cycle. *Business Insights*.

- Montes, M. (2017, October 4). *5 reasons why startups should get funding*. Retrieved from Cafeto: <https://cafeto.co/5-reasons-why-your-startup-should-get-funding/>
- My business*. (2019). Retrieved from 3 ways business incubators can help start-ups: <https://mybusiness.singtel.com/techblog/3-ways-business-incubators-can-help-startups>
- Nelson, V., & Martin, A. (2013). *The Strategic Use of Case Studies in the Monitoring and Evaluation Systems of Sustainability Standards*.
- Nirmal, A. (n.d.). *Volumetree*. Retrieved from Raising funds for your start-up: Guide to approach investors: <https://www.volumetree.com/raising-funds-for-your-startup-business-guide-to-approach-investors/>
- Norton, E. (2000). Venture Capital as an alternative means to allocate capital: An Agency- Theoretic View. *Academic Journal*.
- Obama, B. (2008). The American small business league endorses.
- Osnabrugge, V., & S., M. (n.d.). *The financing of entrepreneurial firms in the UK*. University of Oxford.
- Ozmel, U., Robinson, D. T., & Stuart, T. E. (2013). Strategic Alliances, venture capital, and exit decisions in early stage high-tech firms. *Journal of financial economics*.
- p. (n.d.).
- Passaro, R., Quinto, I., Thomas, A., & Rippa, P. (2016). The start-up lifecycle: an interpretative framework proposal. *XVII Annual Scientific Meeting of the Italian Association of Management*, (p. Renato Passaro Pierluigi Rippa Pierluigi Rippa Ivana Quinto Ivana Quinto Antonio Thomas). Bergamo.
- Pekka Ilmakunnas, V. K. (2000). *Entrepreneurship, Economic Risks, and Risk Insurance in the Welfare State: Results with OECD Data 1978-93*.
- Petty, J. S., & Gruber, M. (2011). "In pursuit of the real deal": A longitudinal study of VC decision making. *Journal of business venturing*.
- Prohorovs, A., Bistrova, J., & Ten, D. (2018). Start-up success factors in the capital attraction stage: Founders' perspective. *Journal of east-west business*.
- RAdu, V. (2019, April 03). *Ecommerce growth*. Retrieved from Qualitative Research: Definition, Methodology, Limitation, Examples: <https://www.omniconvert.com/blog/qualitative-research-definition-methodology-limitation-examples.html?fbclid=IwAR24ubgmjbWnrHE9wiQWpo6QgD4yRsnN5ROIXSHIMwt35IRXP-Eu6rmwxHs>
- Ries, E. (2014). *Successful Entrepreneurs. Goodwill Book*.
- Robehmed, N. (2013, December 16). What is a Startup? *Forbes*. Retrieved from <https://www.forbes.com/sites/natalierobehmed/2013/12/16/what-is-a-startup/#26ca99204044>
- Salomon, V. (2018). Strategies of Startup Evaluation on Crowdfunding Platforms: the Case of Switzerland. *Journal of innovation economics and management*.
- Sharpe, S., Cosh, A. D., Connell, D. A., & Parnell, H. (2009). *The role of microfunds in financing of new technology-based firms*.
- Smith, S. W., & Hannigan, T. J. (2015). *Swinging for the fences: How do top accelerators impact the trajectories of new ventures?* Rome: Druid Society.

- Streletzki, J.-G., & Schulte, R. (2013). Start-up Teams and venture capital exit performance : Venture capital firms are not selecting on the right criteria. *Small business and entrepreneurship*.
- Surowiecki, J. (2016, June 15). Why startups are struggling. *MIT technology review*.
- Tariq, T. (2013). *Start-up Financing*. Netherlands.
- TEmples, W. D. (n.d.). Retrieved from 8 things that attract venture capitalists: <https://antirion.com/8-things-attract-venture-capital-investors/>
- Tiwari, U. (n.d.). *Peerbits*. Retrieved from 6 Types of Startups that Can Grow Substantially With a Dedicated App-Part 2: <https://www.peerbits.com/blog/tech-startups-grow-with-mobile-app-2.html>
- Type of investors*. (2015). Retrieved from Fundable: <https://www.fundable.com/learn/resources/guides/investor/types-of-investors>
- University Lab Partners*. (n.d.). Retrieved from 9 reasons why start ups need incubators: <https://www.universitylabpartners.org/why-startups-need-incubators/>
- UtkarshTiwari. (n.d.). *Peerbits*. Retrieved from 6 Types of Startups That Can Grow Substantially With a Dedicated App- Part1: <https://www.peerbits.com/blog/tech-startups-grow-with-mobile-app-1.html>
- Victor Hwang, S. D. (2019). *Access to capital for entrepreneurs: Removing Barriers*. Ewing Marion Kauffman Foundation.
- Wadhwa, V. (2010). *TechCrunch*. Retrieved from Start-ups or Behemoths: Which are we going to bet on? .
- Ward, S. (2020, February 15). *Small Business*. Retrieved from What angel investors look for in a business: <https://www.thebalancesmb.com/the-7-things-angel-investors-are-looking-for-2948104>
- Watts, H. (2015). *Sources of finance*.
- What is Crowdfunding*. (2018). Retrieved from Fundable: (65) <https://www.fundable.com/learn/resources/guides/crowdfunding/what-is-crowdfunding>
- Who are American Angels? Wharton and Angel Capital Association Study Changes Perceptions About the Investors Behind U.S. Startup Economy*. (2017, November 28). Retrieved from Angel Capital Association: <https://www.prnewswire.com/news-releases/who-are-american-angels-wharton-and-angel-capital-association-study-changes-perceptions-about-the-investors-behind-us-startup-economy-300562302.html>
- Willson, N. (2019, October 21). *TopMBA*. Retrieved from What is a start up Incubator: <https://www.topmba.com/blog/what-startup-incubator>
- Winton, A., & Yerramilli, V. (2008). Entrepreneurial finance: Banks versus Venture Capital. *Journal of financial economics*.
- Zwilling, M. (2010). Top 10 sources of funding for start-ups. *Forbes*.

APPENDICIES

Appendix A - Italy Start-up Main Evidences

→ At the end of the 4th quarter of 2019, the number of innovative start-ups registered in the special section of the Business Register is equal to 10,882, an increase of 272 units (+ 2.6%) compared to the previous quarter.

→ Capital companies set up for less than five years, with annual sales of less than five million euros, and possessing certain indicators relating to technological innovation, can obtain innovative start up status envisaged by national legislation (summary of requirements and concessions). Of the slightly less than 365 thousand joint stock companies established in Italy in the last five years and still in active status, 2.98% were registered as innovative start-ups at the date of the detection. The share capital subscribed by start-ups overall increased compared to the third quarter (+37.6 million euro, + 6.89% in percentage terms) now reaching 583.2 million euro; the average capital is € 53,594 per company, with a marked recovery (+ 4.2%) compared to the figure for the previous quarter.

Distribution by business sector:

Fund	Main detail DIVISIONS	N. innovative startups 4th quarter 2019	% ratio of innovative startups of the sector over the total territory	% ratio of innovative startups to the total new capital companies of the sector
Agriculture and related activities	TOTAL	80	0,74	0,74
Manufacturing, energy and mining activities	C 26 Manufacture of computers and electronic products and ...	306	2,81	35,83
	C 27 Manufacture of electrical equipment and appliances ...	170	1,56	18,30
	C 28 Manufacture of machinery and equipment nca	341	3,13	14,36
	TOTAL	1913	17,58	5,11
Constructions	TOTAL	97	0,89	0,18
Business	TOTAL	366	3,36	0,45
Tourism	TOTAL	63	0,58	0,15
Transportation and Shipping	TOTAL	30	0,28	0,23
Insurance and Credit	TOTAL	22	0,20	0,26
Business services	J 62 Software production, IT consultancy and activities ...	3872	35,58	37,93
	J 63 Information service activities and other information services ...	996	9,15	13,91

	M 72 Scientific research and development	1513	13,90	68,55
	TOTAL	8016	73,66	8,33
Other sectors	TOTAL	266	2,44	1,00
Not classified	TOTAL	29	0,27	6,56
TOTAL	TOTAL	10882	100,00	2,98

Table 5. Distribution by business sector

* Notes: "New limited companies" are considered to be those established for no more than 5 years, with the last declared turnover of less than 5,000,000 euros and in active status.

→ As regards distribution by business sector (Table 1), 73.7% of innovative start-ups provide services to companies (in particular, the following specializations prevail: software production and IT consultancy, 35.6%; R&D activity, 13.9%; information service activities, 9.2%), 17.6% work in manufacturing (above all: manufacture of machinery, 3.1%; manufacture of computers and electronic and optical products, 2.8%;), while 3.4% operate in commerce.

→ In some economic sectors, the incidence of innovative start-ups on the total of new joint stock companies appears significant. 8.3% of all new companies operating in the business services sector are an innovative start up; for manufacturing, the corresponding percentage is 5.1%. In some sectors, as defined by the Ateco 2007 classification, the presence of innovative companies is particularly high: 35.8% of new companies with code C 26 computers are innovative start-ups, 37.9% of those with code J 62 (software production) and even over 68.5% of those with the M 72 code (research and development).

→ Analysing the composition of the corporate structures (Table 2), 1,468 innovative start-ups with a prevalence of women - that is, in which the shareholdings and administrative offices are held by women - 13.5% of the total: incidence significantly lower than the 21.9% observed when taking into consideration the universe of new joint-stock companies. There are 4,704 innovative start-ups in which at least one woman is present in the company structure, 43.2% of the total: a share also lower, albeit to a lesser extent, than that recorded by the other new joint stock companies (47.0%). There are 2,153 innovative youth start-ups (under 35), 19.8% of the total. This is a figure of over three points higher percentage than that found among the new non-innovative companies (16.6%). Even greater is the difference if we consider the companies in which at least one young person is present in the company structure: these represent the 44.4% of start-ups (4,830 in all), against 34.9% of other companies. There are 380 innovative start-ups with a predominantly foreign company structure, 3.5% of the total, a share however lower than that observed among the other new joint stock companies (8.9%). On the other hand, the innovative start-ups in which at least one non-Italian citizen is present are 13.9% (1,515), a proportion more similar to that found among capital companies (14.9%).

Distribution by company type:

4th quarter 2019		The female prevalence	The youth prevalence	The foreign prevalence	With female presence	With youth presence	With foreign presence
Absolute values	innovative startups	1.468	2.153	380	4.704	4.830	1.515
	new capital companies	79.803	60.551	32.445	171.447	127.206	54.494

Percentual values	innovative startups out of the total startup innovative	13,49	19,78	3,49	43,23	44,39	13,92
	new capital companies out of the total new capital companies	21,88	16,60	8,90	47,01	34,88	14,94

Table 6. Distribution by company type

→ Analysing the geographical distribution of the phenomenon (Tables 3), Lombardy is the region in which the largest number of innovative start-ups are located: 2,928, equal to 26.9% of the national total. Follow Lazio, the only other region in exceed one thousand (1,227; 11.3%), and Emilia-Romagna (931, 8.6% of the national total). Shortly afterwards, Campania appears in fourth place, by far the first region of the South, with 896 start-ups (8.2%), followed by Veneto, with 889 (8.2%). The queue includes Basilicata with 104, Molise with 80, and Valle d'Aosta with 22 innovative start-ups.

Regional distribution and density - Ranking of the regions

Ranking	Region	N. innovative startups in 4 th quarter 2019	% ratio of innovative startups on the national total	% ratio of innovative startups on the total new joint stock companies of the region
1	LOMBARDIA	2928	26,91	4,30
2	LAZIO	1227	11,28	2,36
3	EMILIA-ROMAGNA	931	8,56	3,58
4	COMPANIA	890	8,23	2,17
5	VENETO	889	8,17	3,25
6	PIEMONTE	610	5,61	3,42
7	SICILIA	514	4,72	2,21
8	PUGLIA	429	3,94	1,85
9	TOSCANA	423	3,89	1,86

10	MARCHE	343	3,15	3,72
11	TRENTINO-ALTO ADIGE	266	2,44	5,25
12	CALABRIA	265	2,44	2,82
13	FRIULI-VENEZIA GIULIA	231	2,12	4,95
14	ABRUZZO	215	1,98	2,45
15	LIGURIA	190	1,75	2,82
16	UMBRIA	189	1,74	3,79
17	SARDEGNA	130	1,19	1,58
18	BASILICATA	104	0,96	3,21
19	MOLISE	80	0,74	3,81
20	VALLE D'AOSTA	22	0,20	5,10

Table 7. Regional distribution and density

Appendix B - Start-up Sampling

1. Rest World

Company: Rest World

Participant: Financial head, plus one of the cofounders

Years: 2019

Sector: Horeca

Start-up phase: between early adopters and seed

Size of people: 5

Description of business: The RestWorld project was born between university classrooms and restaurant halls: a growing team that intends to contribute significantly to improving working conditions. A fast, cheap and simple service that reduces 80 percent of the activities a restaurateur performs in search for new workers.

<https://restworld.it/landing-page#team>

[https://restworld.it/startup-page\(1\)](https://restworld.it/startup-page(1))

2. ToothPic

Company: ToothPic

Participant: CEO

Years: December 2016

Sector: Cybersecurity

Start-up phase: seed stage

Size of people: 6

Description of Business: Every camera sensor, like those of smartphones, leave in every photo an invisible, random, unique and unclonable trace, like a fingerprint of the device. ToothPic has developed and patented a technology that exploits this fingerprint to protect the cryptographic keys -commonly used in authentication, digital signature, cryptographic and blockchain protocols- stored on smartphones, keeping them away from viruses and malware, protecting the personal data and privacy of users of online services.

<https://www.toothpic.eu/team-page/>

3. Young Platform

Company: Young Platform

Participant: Co-founder, and Team

Years: June 2018

Sector: Cryptocurrencies

Start-up phase: pre-seed, seed

Size of people: 27

Description of business: Our mission is making cryptocurrencies' world accessible to everyone. Young products' ecosystem is a vertical funnel, and each product is a step toward client's idealization. Step drop is an educational tool, Young Platform a safe and easy platform for cryptocurrencies' exchange, Young Platform Pro is a platform dedicated to professional traders. Young ecosystem is a philosophy, with a language and a specific educational aim. The user-journey and the effectiveness in acquiring users are key differences of the company.

<https://youngplatform.com/about>

4. CarbonLAB

Company: carbon lab

Participant: Ceo-founder

Years: April 2019

Sector: Blockchain

Start-up phase: seed

Size of people:10

Description of business: The proposed solution is an app, based on blockchain technology, which allows taking over CO2 credits, validating and selling them, thanks to the collaboration of different actors.

Companies through KYC validation put the location of their lands and satellite algorithms analyze them and quantify credits. The certification institution takes all the data to validate the result, generating the credit which can be sold directly on the proprietary platform, or through already existing channels.

<https://www.food-chain.it/public/company/>

5. Foodchain

Company: Foodchain

Participant: Co-founder

Years: 2012

Sector: seed, growth

Start-up phase:

Size of people: 20

Description of business: Foodchain SpA aims to make transparency an important tool for any supply chain player in order to assure food origin, quality and value, protecting consumers and supporting producers.

An open platform was developed to track and trace products and companies along supply chains, according to Quadrans blockchain. Blockchain is the network of bridges that connects all supply chain flows, improving quality control and increasing management efficiency.

<https://www.food-chain.it/public/company/>

6. Sbam

Company: Sbam

Participant: Financial and Team

Years: 2016

Sector: IT

Start-up phase: pre-seed

Size of people: 15

Description of business:

https://www.dnb.com/business-directory/company-profiles.sbam_srl.6553200d99629b64938df07197463981.html

<https://sbam.io/>

7. L'Alveare che dice Sì!

Company: L'Alveare che dice sì!

Participant: Team

Years: December 2015

Sector: Food and beverage

Start-up phase: seed

Size of people:8

Description of business: L'Alveare che dice Sì is an online platform aiming to strengthen the relationship between local producers and consumers through organized pop-up markets, called 'Alveari'. The idea is to offer a more independent and efficient way of distributing food locally, which focuses on direct sales and fair prices, promoting interaction between consumers and producers as well as connecting the community through food. Today there are over 180 Alveari throughout Italy.

<https://alvearechedicesi.it/it>

8. Company: Numenu

Participant: CEO and founder

Years: 2017

Sector: Horeca

Start-up phase: pre-seed

Size of people:6

Description of business: Digital product, platform actually for b2c and a web, app for restaurant owners. It is an app which translates menus in different languages.

<https://www.numenu.it/en/>

9. Company: BitBoss

Participant: Co-founder - Software Architect

Years: March 2017

Sector: Sviluppo Software, Soluzioni digitali

Start-up phase: seed

Size of people: 7

Description of business: BitBoss is an innovative start-up incubated in I3P, the incubator of innovative companies of the Turin Polytechnic. They design and develop digital products based on technology, creativity and innovation. Also, they are software architects focused on the result and quality of our products.

10. Company: Aiko

Participant: Systems Engineer and knowledge manager

Years: March 2017

Sector: Automation, Aerospace, Computer science

Start-up phase: seed

Size of people:8

Description of business: AIKO develops state of art Artificial Intelligence for the automation of space missions. Key expertise are: deep learning, autonomous reasoning, safety critical applications of AI, edge computing.

<https://www.aikospace.com/#>

11. Company: Ermes Cyber Security srl

Participant: Founder & Team

Years: April 2017

Sector: IT

Start-up phase: pre-seed

Size of people:5

Description of business: Ermes Cyber Security provides companies with advanced protection tools against all those web dangers that target employees and cannot be protected by existing tools. Thanks to the advanced AI and big data algorithms, the protection systems are designed to update automatically and in real time, also providing the company with tools for easy integration and automatic reporting.

<https://www.ermessecurity.com/>

12. Company: Evo

Participant: Team

Years: November 2013

Sector: Software, Management consulting

Start-up phase: seed

Size of people: 44

Description of business: Evo develops artificial intelligence with granular, accurate data-driven customer choice of models that help our clients make better automated decisions. We help the world's leading brands transform their performance using a revolutionary, powerful and accurate predictive approach that is flexible and low effort for clients.

<https://evopricing.com/>

13. Company: Felfil

Participant: Marketing manager

Years: 2014

Size of people: 3

Description of business: We were born in the new industrial context of the city of Turin and with Felfil Evo we support our customers in their creative activities. Our filament extruder Felfil comes from curiosity for experimentation and passion for 3D printing and its potential.

We have created Felfil Evo thanks to the listening and participation of our community, spread over more than 150 European and international countries and we have worked to assemble our best domestic filament extruder

<https://felfil.com/?v=e892e780304d>

14. Company: C3M Srls

Participant: Entrepreneur

Years: July 2016

Sector: Industrial / automation

Size of people: 7

Description of business: innovative solutions related to security and management of civil, military and industrial buildings. The first product to be introduced on the market is AUTOMA, a BMS (building management system) platform for the management of complex infrastructures (district houses, university campuses, shopping centres, public buildings, airports, ports, stations)

<http://www.c3m.cloud/>

15. Company: Industrial Cloud

Participant: both co-founders

Years: August 2015

Sector: IT

Start-up phase: seed

Size of people: 4

Description of business: IC wants to implement a technology platform for the creation of an information exchange environment between SMEs, in order to solve the information gap in the industry. The platform allows companies to create a digital profile that automates industrial intermediation processes, expanding business opportunities and exploiting unused production capacity.

16. Company: FLAG-MS

Participant: Team

Years: April 2012

Sector: Mechatronics, Electric powertrains

Size of people: 7

Description of business: FLAG-MS is a company skilled in design and realization of mechatronic systems for industrial and automotive fields.

The company background comes from a long collaboration of FLAG-MS staff with Mechatronics Laboratory of Politecnico di Torino (since 2005). Flexibility and readiness characterize FLAG-MS that is able to provide the customer with specialized consulting in mechatronic field, customized solutions and off-the-shelf products for industrial plant control/monitoring, design and development of hybrid/electric powertrains.

<https://www.flag-ms.com/index.php/it/>

17. Company XTREAM

Participant: Team

Year founded: September 2018

Sector: IT

Star-up phase: seed

Size of people: 9

Description of business: Xstream produces and markets products for the governance and optimization of "mainframe based" technologies, addressing to all companies that use the mainframe and that need to know in a precise and accurate way how the technological investment is used, in an optimal efficiency. Xstream SRL was founded with the aim of developing, producing and marketing a range of software products that can simplify, thanks to innovative technologies, the management of mainframe environments as well as modernize their organization and reduce the cost structure with an excellent price / performance ratio.

Appendix C - Interview Guidelines for research questions

Start-up Perspective in Attracting Investors: Polito I3P Case Study

Questionnaire

- Let you know, who I am:

Hello, my name is Era Sherifaj. I am a master student in Engineering and Management here in Polito. I am about to graduate and working on my thesis, whose topic considers Start ups' perspective on how they attract investors. My mentor, Professor Elisa Ughetto and I, have decided to work on I3P start-ups and their perspective. Your contribution is essential for this work so I would politely ask you to help me by completing this questionnaire.

In this work after getting your perspective, I will compare it with investors perspective and reach in conclusions which would show what you are missing, what you are doing wrong and what you need more to attract investments. I would be happy to share my work with you and hopefully it might be useful for your activity.

- Let me know, who you are:

Questions about Entrepreneur

1. Can you please **tell about yourself**, who you are, and what is your background?
2. How did you come up with your start up **idea**? What is the problem and why are you solving this problem?
3. What is your **aim** with this start up?
4. What entrepreneurs do you **admire** and why?
5. What if after three of four years investors understand you are **not the right person** to continue running this company. How would you address that problem?

Questions about their Start up

1. What is your **product**?
2. Do you have actual **users** or customers?
3. What are people more excited about? What do they **like** most?
4. What are people least excited about? What do **they dislike** mostly?
5. In which **phase of Start-up** development are you?
6. At which stage you start **searching for investments**?
7. What does **success look** like to this start up?

8. What has been the **biggest accomplishment** of the team to date?
9. What are the **principal risks** of this business?
10. What is your Start up **future goal**?

Your perspective in attracting investors

Organizational Factors

1. What are the most **important organizational factors** to impress investors? Please, explain how you think they get investors' attention.

2. What of these **factors you possess**?

- Passionate and enthusiastic entrepreneur
- Previous professional, job and entrepreneurial experience of all team members
- Solid management Team
- Expertise and delegated authority
- Technical and Managerial Skills of the Team necessary in developing and servicing the product
- Operating Control
- Decision making structure
- Goal alignment of all team members
- Use of managerial consultancy
- Use of business consultancy
- Profit from Business incubator services
- Profit from I3P Services
- Use business accelerator service
- Take mentoring and consultant advice
- Character and capacity of your business partners?

3. What factors would you like to earn **and develop** further?

- Add other elements or characteristics

Investors Characteristics

What investors characteristics are important to you? Which type of investors are you trying to attract? Do they limitate your investments? Please, explain why.

1. What type of investor you like?

Banks Business Angel Venture Capitalist Peer to Peer lender Personal investors Corporate investors

2. Do you give importance to the place they are from? What country would you want them to be from?

3. Do you consider Investors wanting to be partners or mentors?
4. Other characteristics:
 - Risk averse investors
 - Investors with knowledge on market and industry you are operating
 - Investors operating in different industry than yours.
 - Investors who share and grow with you
 - Investors leaving you free to operate
 - Investors who strictly control every step
5. Have you considered crowdfunding?
6. Have you taken governmental support?

Add other characteristics

Attract Investors

What do you do to attract investors?

1. How do you research for investors?

Ways of research

- Directly write to investors
 - Analyse investors from LinkedIn
 - Start Up events
 - Acceleration (Y combinator)
 - Start Up inventor
 - Create network
 - Digital marketing
 - Track and measure through data analytics
 - Being very active in social media
2. Do you prepare lists of investors you want?
 3. Do you do detail personal research for each investor you are going to present?
 4. Do you research investors sectoral preferences?

Add other activities

Financial Factors (Money)

“For every dollar that an angel puts into a company, he or she would like to take seven dollars out, after taxes, in seven years.” Allan Riding

What financial elements want investors to see? Give your opinion.

- Complete set of pro forma financials: income statements, balance sheets, and statement of cash flow
- Earnings growth
- Stability
- Debt to equity ratio
- Price to earnings ratio
- Dividends
- Potential of solid return
- Return on investments Calculation
- Sensitivity Analysis
- Reasonable and realistic amount of money you require
- Similar financial objectives
- Exit strategy
- Opportunity to be actively involved

Question on financials

1. How do you prepare your finance part? Are they based on confidential data?
2. How do you calculate your desired pre-money valuation?
3. Is the person preparing this a finance professional?
4. Do you take any extra consultancy?

Add other factor

Business Market and Product

How important are market and product activities in attracting investors?

What is your initial market focus?

What elements of market and product are important for investors?

- a) Considerable market size and profitability
- b) Potential growth (clearly explained)
- c) Right time and place
- d) Company competitors and barriers to entry
- e) Value as a core concept
- f) Unique product (differentiation and competitive advantage)
- g) Readiness of society(market) to accept your offer
- h) Presence of necessary resources to accommodate the growth of new market
- i) Industry productivity
- j) Well - defined Canvas business model and business plan
- k) Relative strength in industry
- l) Business structured for investment (equity ownership)
- m) Long term sustainability
- n) Presence of intellectual property
- o) Traction (act, proof of concept)

The Pitch (Presentation to Investors)

Why are presentations important?

1. Do you prepare Customized presentation according to investor background and characteristics?
2. What do you put inside your presentation?
3. How much time it takes to prepare your presentation?
4. How important is pitch for you?
5. Have you ever participated in pitching competition? Which one? Have you been successful?
6. Who does the presentation? How important is the person who does the pitch?

Investment

- Have you taken any investments?

If yes

- How did you take it?
- How did you find the person who invested?
- What amount has been invested in your start up?
- In which Industry did investors belong? Where were they from?

If no

- What do you think are the reasons you are lacking investments?
- What are you doing to change this situation?
- When is your next try to get investments?
- If you don't get investments in short time, what is your plan?

I3P Support

How I3P supports you in attracting and getting investments?

1. Does I3P suggest your investors?
2. Is I3P supportive in the process of finding investors?
3. Do they give consultancy and on how to find investors? Is it useful or do you think it would be useful?

Note: If you have any doubts, questions or suggestions, please write me: erasherifaj@yahoo.com

Thank you!

Appendix D - Face to face Interview

Start-up Perspective in Attracting Investors: Polito I3P Case Study

Questionnaire

- Let you know, who I am:

Hello, my name is Era Sherifaj. I am a master student in Engineering and Management here in Polito. I am about to graduate and working on my thesis, whose topic considers Start ups' perspective on how they attract investors. My mentor, Professor Elisa Ughetto and I, have decided to work on I3P start-ups and their perspective. Your contribution is essential for this work so I would politely ask you to help me by completing this questionnaire.

In this work after getting your perspective, I will compare it with investors perspective and reach in conclusions which would show what you are missing, what you are doing wrong and what you need more to attract investments. I would be happy to share my work with you and hopefully it might be useful for your activity.

- Let me know, who you are: Alessandro Perillo

Questions about Entrepreneur

1. Can you please **tell about yourself**, who you are, and what is your background?

I studied engineering and Management at Polito, I worked as a Business analyst at I3P and then I started to work in Young Platform a year ago.

2. How did you come up with your start up **idea**? What is the problem and why are you solving this problem?

Young wants to bring the world of cryptocurrency to the mass market. The idea was born in in 2017 when the founders traded. The access to the crypto market was only for a niche because of the lack of user-friendly platforms. So they came up with the idea to develop their own cryptocurrency exchange in order to fill this pain.

3. What is your **aim** with this start up?

There are different goals related to this project both personal and professional.

First of all, the main goal is to bring to market a product that is easy-to-use, accessible and reliable.

The average age of the team is 23 years so we this project is the starting point for many of us so there is a great desire to grow and consolidate the company first nationally and then internationally.

4. What entrepreneurs do you **admire** and why?
5. What if after three of four years investors understand you are **not the right person** to continue running this company. How would you address that problem?

Since we are developing a financial platform that will offer financial services. Some of us, who hold certain types of positions, do not have the characteristics required by law to maintain such positions. We have therefore already started a process of integration into senior resources, more specialized than us. So we are open to onboard the right person in order to achieve the success of the project.

Questions about their Start up

1. What is your **product**?

Young is developing an ecosystem of products.

Stepdrop – an app that we launched at the beginning of 2019. It's a game that we create to get people started on getting information about blockchain and cryptocurrencies.

Young Platform – is a gateway exchange that aims to make the world of cryptocurrencies accessible to the mass market.

Young Platform – is a gateway exchange that aims to make the world of cryptocurrencies accessible to the mass market.

Young Platform Pro – is a crypto exchange designed for advanced traders and professional investors.

2. What social and **economic value** are you bringing to the world with this product?

We are giving people a new tool they can use to educate themselves on financial issues and to diversify their investments in cryptocurrencies.

3. Do you have actual **users** or customers?

At the moment the only product on the market is Stepdrop where we have 30K active users per month.

4. What are people more excited about? What do they **like** most?

The simplicity of the product, the fact that there is a predefined user journey which aims to educate people about a new topic.

5. What are people least excited about? What do **they dislike** most?

They are really scared by something that they don't understand properly. This is a great message for us because it says that there is a lot of work to do especially on marketing and communication.

6. In which **phase of Start-up** development are you?

The next phase will be a Series A. We just finished our equity crowdfunding campaign on Seedrs.

7. At which stage you start **searching for investments**?

From day 0.

8. What does **success look** like to this start up?

We will achieve success when the platform is on the market with active users and quality services. Internally, success will be achieved when the company reaches a level of maturity that allows it to continue to innovate.

9. What has been the **biggest accomplishment** of the team to date?

The launch of Stepdrop.

The equity crowdfunding campaign on Seedrs.

The capital injections in one year.

10. What are the **principal risks** of this business?

There are a lot of risks related to this business.

Credit risk

Market Risk

Liquidity Risk

Operative Risk

Leverage Risk

Business continuity Risk

Reputational Risk

11. What is your Start up **future goal**?

To expand the operation at national level and international level.

Your perspective in attracting investors

Organizational Factors

What are the most **important organizational factors** to impress investors? Please, explain how you think they get investors' attention.

- Passionate and enthusiastic entrepreneur - YES
- Previous professional, job and entrepreneurial experience of all team members
- Solid management Team
- Expertise and delegated authority
- Technical and Managerial Skills of the Team necessary in developing and servicing the product - YES
- Operating Control
- Decision making structure - YES
- Goal alignment of all team members - YES
- Use of managerial consultancy
- Use of business consultancy
- Profit from Business incubator services
- Profit from I3P Services
- Use business accelerator service
- Take mentoring and consultant advice - YES
- Character and capacity of your business partners?

1. What of these **factors you possess**?

YES

2. What factors would you like to earn **and develop** further?

Solid management team, Operating control. International Environment.

- Add other elements or characteristics

Investors Characteristics

What investors characteristics are important to you? Which type of investors are you trying to attract? Do they limitate your investments? Please, explain why.

1. What type of investor you like?

Banks Business Angel Venture Capitalist Peer to Peer lender Personal investors Corporate investors

Personal investors, Business angels, venture capital.

2. Do you give importance to the place they are from? What country would you want them to be from?

No, I do believe that Ventures or investors from foreign countries could help us to get more information about the market they operate in.

3. Do you consider Investors wanting to be partners or mentors?

Partners.

4. Other characteristics:

- Risk averse investors
- Investors with knowledge on market and industry you are operating
- Investors operating in different industry than yours.
- Investors who share and grow with you
- Investors leaving you free to operate
- Investors who strictly control every step

5. Have you considered crowdfunding?

We closed out equity crowdfunding campaign in September

6. Have you taken governmental support?

No

Add other characteristics

Attract Investors

What do you do to attract investors?

1. How do you research for investors?

We look for Ventures capital or investors that operate in the fintech market.

Ways of research

- Directly write to investors - YES
- Analyse investors from LinkedIn - YES
- Start Up events - YES
- Acceleration (Y combinator)
- Start Up inventor
- Create network - YES
- Digital marketing - YES
- Track and measure through data analytics
- Being very active in social media - YES

2. Do you prepare lists of investors you want?

Yes, we define goal for every investor.

3. Do you do detail personal research for each investor you are going to present?

Yes

4. Do you research investors sectoral preferences?

Not always but yes.

Add other activities

Financial Factors (Money)

“For every dollar that an angel puts into a company, he or she would like to take seven dollars out, after taxes, in seven years.” Allan Riding

What financial elements want investors to see? Give your opinion.

- Complete set of pro forma financials: income statements, balance sheets, and statement of cash flow
- Earnings growth - YES
- Stability
- Debt to equity ratio
- Price to earnings ratio
- Dividends
- Potential of solid return - YES
- Return on investments Calculation
- Sensitivity Analysis

- Reasonable and realistic amount of money you require
- Similar financial objectives
- Exit strategy – Depends by the investor
- Opportunity to be actively involved

Question on financials

1. How do you prepare your finance part? Are they based on confidential data?

We use macro and micro analysis about the sector and the we have hypothesis to confirm.

2. How do you calculate your desired pre-money valuation?

With the multiple method.

3. Is the person preparing this a finance professional?

It's an internal resource who has this background

4. Do you take any extra consultancy?

Yes we have several advisors who help us.

Add other factor

Business Market and Product

How important are market and product activities in attracting investors?

What is your initial market focus?

With Stepdrop we are creating a new market by bringing people closer to the topic of blockchain and cryptocurrencies.

What is your future market focus?

The idea is to bring our product to mass market.

What elements of market and product are important for investors?

- Considerable market size and profitability - YES
- Potential growth (clearly explained) - YES
- Right time and place
- Company competitors and barriers to entry - YES
- Value as a core concept
- Unique product (differentiation and competitive advantage) - YES

- g) Readiness of society(market) to accept your offer
- h) Presence of necessary resources to accommodate the growth of new market
- i) Industry productivity
- j) Well - defined Canvas business model and business plan
- k) Relative strength in industry
- l) Business structured for investment (equity ownership)
- m) Long term sustainability - YES
- n) Presence of intellectual property
- o) Traction (act, proof of concept) - FUNDAMENTAL

The Pitch (Presentation to Investors)

Why are presentations important?

Because is the moment when you understand if people are getting what you're saying.

1. Do you prepare Customized presentation according to investor background and characteristics?

Yes

2. What do you put inside your presentation?

We have different structure the most used is:

- 1- mission
- 2- Problem / Solution
- 3- Ecosystem presentation
- 4 – result achieved
- 5 – Future development
- 6 – Financial
- 7- Team

3. How much time it takes to prepare your presentation?

It depends, maximum 3-4 days

4. How important is pitch for you?

It's fundamental.

5. Have you ever participated in pitching competition? Which one? Have you been successful?

Bheros, and other events in Italy.

6. Who does the presentation? How important is the person who does the pitch?

In Italy our CEO, abroad it depends who is there

Yes the person who pitch is very important the emphasis of the speech is fundamental.

Investment

- Have you taken any investments?

If yes

- How did you take it?

Family and Friends, Seedrs equity crowdfunding campaign

- How did you find the person who invested?

Personal network

- What amount has been invested in your start up?

Almost 1M

- In which Industry did investors belong? Where were they from?

They come from the industrial sector.

If no

- What do you think are the reasons you are lacking investments?
- What are you doing to change this situation?
- When is your next try to get investments?
- If you don't get investments in short time, what is your plan?

I3P Support

How I3P supports you in attracting and getting investments?

1. Does I3P suggest your investors?

Yes

2. Is I3P supportive in the process of finding investors?
3. Do they give consultancy and on how to find investors? Is it useful or do you think it would be useful?

NO

Appendix E - Audio Message Interview Example (numenu)

Only the second part of interview is available as the first part was too big and word didn't support it.



AUD-20200127-WA0009.opus