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Table of Content

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Abstract

This dissertation aims to find which are the critical success factors that determine whether a collaboration between a start-up and a corporation will be successful. Taking into account how technology has become fundamental for success and many companies find themselves lacking enough innovation to meet those requirements, partnering with start-ups has become an effective strategy in order to remain competitive.

The main objective of this thesis is to understand how these collaborating strategies can be improved in order to encounter a win-win situation between corporations and start-ups, fostering mutual growth.

As per the research methods used, they are purely qualitative. More concretely, there have been 3 different interviews conducted to technology-oriented professionals and 3 other interviews from a secondary source which are more focused in the Hospitality industry.

To conclude, an overall analysis of the factors making successful collaborations between start-ups and corporations is fulfilled having used the aforementioned sources.

1. Introduction

1.1. Introduction: Context of the research problem

The attitude of established corporations, which are incumbent players in the market is changing and the need of digitization and initiative to enter new markets has raised awareness among companies, which consider the possibility of collaborating with start-ups. 'Collaborating' can be in many different ways and leading to 'win-win' situations; by adding value with technology to corporations and growth to the start-ups. This value therefore will help in the level of competitiveness in the market. (Larkin and O'Halloran, 2018).

Agreements between large companies and start-ups have a risk when it comes to management and decision-making and also an organizational culture clash can exist. However, as aforementioned in the first paragraph, the parties involved can be greatly benefit by coworking. (Larkin and O'Halloran, 2018). It is undeniable the ongoing transformation in the global business landscape, with a huge growth potential towards technology as is increasing the level of competitiveness in the market and adding new potential small smart players. (Larkin and O'Halloran, 2018).

1.2. Introduction: Identification of the research problem

After observing the technological changes, we are starting to glimpse how a convergence of factors is enabling new kinds of business logic that threaten the status quo. (Prats and Amigo, 2017).
The corporations' adaptation needed in the market to be competitive can be complemented by collaborating with a new player.

Below a graph elaborated by Prats and Amigo from the university IESE clearly showcases the weaknesses of corporations in the nowadays market and how this problem can be tackled by collaborating with start-ups. In addition, there is displayed the weaknesses of start-ups, although its drawbacks should not stop corporations from collaborating with start-ups if properly managed.

Why collaborate with start-ups?

Corporations → **Start-ups**

Corporations:
- Access to market
- Market knowledge
- Workforce
- Economics of scale
- Resources & power
- Capital
- Viability

Start-ups:
- Difficulties in accessing new markets
- New to market
- Limited workforce
- Lack of resources and partners
- Need of extra resources to scale
- Lack of money
- Lack of visibility

Technology
Talent
Clients

Corporations:
- Slowness
- Lack of creativity
- Encouragement of continuity
- Standaritzation of processes
- Limited motivation
- Slow-paced growth
- Risk aversion
- Operate is mature markets

Start-ups:
- Organizational agility
- Continuous new ideas
- Challenge to the status quo
- Versatile environment
- Highly motivated teams
- Potentially rapid growth
- Willingness to take risks
- Capillarity to enter new markets

Source 1: Prats, J. and Amigo, P. (2017). *Why Corporations Need to Collaborate with Start-ups?*

Start-ups can help corporations with ideas contribution, organizational agility, challenge this status quo, easier environment adaptation, motivation, rapid growth, capability to enter new markets and willingness to risk taking. One the other hand, enterprises can provide with market knowledge, workforce, economies of scale, capital and resources & power.

While corporations tend to take more calculated risks and have a slower tempo, start-ups tend to be small teams of light-structured firms with flat hierarchies that are faster and more willing to overturn existing models if necessary to serve market needs better. (Prats and Amigo, 2017).

According to the start-up founder Herty Tammo we have to distinguish between classical 'old economy' industrial enterprises and modern-day start-ups 'new economy', these not only can coexist but cooperate in many different ways.

'I can affirm that success stories happen only when the best characteristics and opportunities of old and new economy are skillfully combined. Simply put, one world cannot function without the other, no matter how strong the efforts.' - Mr. Tammo says.

The solution to this problem is the right form of collaboration, at the time, place and with the right partner.

1.3. Aim and objectives

The aim of the following research paper is to find strategic business alternatives incorporating start-up collaboration in the current market conditions by evaluating the risks and analysing the different possibilities. A hypothesis on how to potentially improve the success rate of partnerships between start-ups and corporations will be formulated as well.

A successful collaboration between start-ups and large corporations is an essential factor that fosters innovation, allowing multiple benefits for both sides (Larkin and O'Halloran, 2018). However, a range of complications tend to arise from a clash of different mentalities and business structures. A compilation of these factors discourages and drives away CEOs of start-ups from potential partnerships with large corporations (Lee, 1996). In order to ensure that strategic alliances can prosper, a mutual agreement and understanding of both parties must be reached.

According to Aline Santos, collaboration between start-ups and corporations is not an optional strategy anymore, but a strategic obligation. Start-ups are currently recognised as the pioneers in terms of innovation, fostering growth and challenging bigger and older corporations. However, these results are only possible due to the start-ups incredibly agile work processes, its specific set of ethics and their high-risk taking levels (Larkin and O'Halloran, 2018).

The ultimate goal of this research paper will be to formulate a hypothesis on what aspects are the critical factors that influence whether start-ups and corporations' collaborations are successful or not.

In order to test whether the objective has been achieved, the formulated hypothesis will be submitted to a rigorous revaluation based on this report's findings and projections.

1.4. Originality and contribution to knowledge:

The potential partnerships between start-ups and corporations is currently being seen by numerous professionals as a sustainable way to lead innovation forward. Start-ups are able to add great value to corporations without disrupting them from their normal activity (Enrica Sighinolfi, 2018).

However, according to Imaginatik and MassChallenge, 50% of start-ups have rated their experience collaborating with corporations as mediocre or worse (Imaginatik and MassChallenge, 2016). This leads to the thought that there is plenty of room for improvement within these partnerships. That is where this thesis' contribution to knowledge comes into play. The "Aim and objectives" section exposes the main contribution offered which will potentially improve the performance of the abovementioned collaborations and which are the critical factors that lead to a successful partnership between large corporations and start-ups.

These partnerships are currently being considered a hot topic. Many professionals have started to study these interesting collaborations but at this point, there are not many published reports on how to improve start-ups and corporations partnerships. Most reports focus on how to build these collaborations but not on how to actually improve their success ratio. This is where this report differentiates from others.

2. Literature Review

2.1. What is innovation?

According to McFadzean (2005) innovation is a process that delivers added value and newness to an organization, suppliers and customers by the development of new processes, procedures, solutions, products, services, new methods of commercialization and/or business model by a small entrepreneurial or large established firm in an open or closed system.

2.2. How collaborations lead to innovation

According to Larkin and O'Hallaran (2018), Europe is home of plenty of successful businesses and multinationals. Additionally, the European economy finds itself in a growth stage with an innovation ecosystem that is stronger than ever before. Larkin and O'Hallaran argue that taking into account the pace of changes brought by the Fourth Industrial Revolution, the continued economic success opens the door for a better connection and understanding between traditional businesses and new players. Both worlds can acquire benefits from working together. Nesta (2015) also supports the previous statement by arguing that there is a broader support ecosystem developing in Europe, where there are organisations oriented as platforms to facilitate collaborations between corporations and start-ups. These organisations tend to be other companies, accelerators, universities, institutional investors and policymakers, which can be reached out for support and guidance. The above-mentioned partnerships bring the expertise and experience to aid companies to reach their goals and priorities. Additionally, the networking aspect is key, as they often have strong connections in the start-up community to engage the best start-ups with the proper corporations. In addition, and perhaps the most important, good ecosystem partners will understand both the corporate and start-up worlds.

Larkin and O'Hallaran (2018) and Zocco (2015) state that this change of mentality is influencing the attitude of established European businesses. More and more large companies see how essential it is to digitize and to enter in contact with start-ups. However, more than half of the attempts of

collaboration end up in a failure due to a clash of mindsets and professional culture of agile and risk-taking start-ups and process oriented and risk-averse corporates.

"*Partnerships between incumbent players and start-ups are the way forward for the Fourth Industrial Revolution to be sustainable in the long term. I'm talking about a model where start-ups use technology to add value to existing players without necessarily disrupting them.*" (Enrica Sighinolfi, 2018).

As Enrica Sighinolfi (2018) stated above, successful partnerships would help companies to ensure they remain at their competitive edge. It can benefit both parties, allowing corporations to enter and establish new markets, and start-ups to get the funding and the market knowledge that they need to develop their products. Hoberman (2015) supports the argument of Sighinolfi, talking about the shortening lifespan of big companies, as the average tenure of a firm has been reduced from 61 years in 1958 to 18 years in 2015. This leads into corporates trying to incorporate the best ideas to keep their business running. However, these ideas do not always come from their own business. Instead, corporations are learning that start-ups can help defend and grow market positioning.

However, according to Larkin and O'Hallaran (2018) this kind of cooperation comes with various potential drawbacks. As mentioned before, complications often emerge from a clash of cultures and mindsets. For instance, the agile versus static work processes, different work ethics and goals and different levels of risk-taking. Additionally, CEOs from start-ups must often direct themselves to some sort of department in charge of innovation, instead of the CEOs of corporations. This fact leads to the Chief Executive Officers from start-ups to feel that they are not important enough to deal directly with higher members of the corporation's hierarchy.

Larkin and O'Hallaran (2018) additionally highlight that successful partnerships highly rely on each party learning to understand the interests, expectations, incentives, culture and work ethic of the other. Both parties must identify and create a specific model of collaboration that fits their need and current situation. Additionally, the roles and responsibilities of each party must be clearly described.
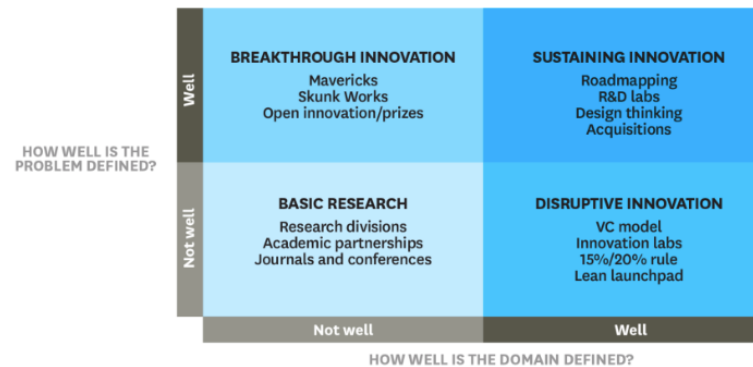
2.3. The four types of innovation

The innovation matrix helps leaders to identify the type of strategy to find a solution to a problem. The matrix arises two questions: (Satell, 2017)

- How well can we define the problem?
- How well can we define the skill domain(s) needed to solve it?

4 Types of Innovation

	Not well	**Well**
Well	**BREAKTHROUGH INNOVATION** Mavericks Skunk Works Open innovation/prizes	**SUSTAINING INNOVATION** Roadmapping R&D labs Design thinking Acquisitions
Not well	**BASIC RESEARCH** Research divisions Academic partnerships Journals and conferences	**DISRUPTIVE INNOVATION** VC model Innovation labs 15%/20% rule Lean launchpad

HOW WELL IS THE PROBLEM DEFINED?

HOW WELL IS THE DOMAIN DEFINED?

SOURCE GREG SATELL © HBR.ORG

Source 2: *Satell, G. (2017). The Innovation Matrix*

1. **Sustaining innovation:** need to improve existing capabilities in existing markets. In order to solve this type of problems effectively, there are some conventional strategies such as: roadmapping, traditional R&D labs, usage of acquisitions to add new resources and skill sets into the organization (Satell, 2017) or design thinking methods (Kelley, 2008).

2. **Breakthrough innovation:** the problem is not defined as well as the solution. Open innovation strategies can be effective, (Satell, 2017) because the problem is exposed to different skill domains. (Kuhn, 1962)

3. **Disruptive innovation:** when the basis of competition changes due to technological changes, therefore companies have to adapt although employees have less interest; then the business model must be innovated. (Christensen, 1997). Some ways of achieving a model change are: lean startup methods (Blank, 2013) or the business model canvas (Osterwalder, 2009).

4. **Basic research:** start by the discovery of a new phenomenon through worldwide research. The existence of government programs, manufacturing hubs (for advanced technology) and local universities, are valuable sources. (Satell, 2017).

2.4. Critical success factors of the survival of start-ups with a radical innovation

According to (Groenewegen and De Langen, 2012) there are three main factors which determine the success of growth of start-ups: the uniqueness of the advantages of innovation, the start-up organization characteristics and the person of the entrepreneur. This growth can be achieved in two ways: turnover and employment.
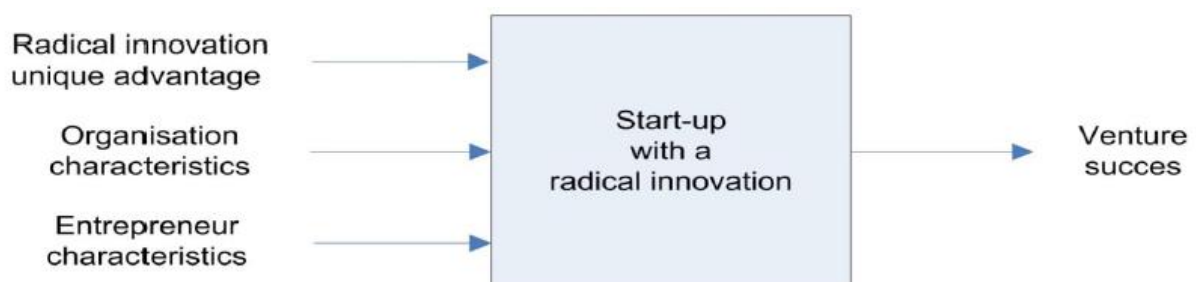
2.5. Funding to promote collaborations

As Varsamis (2018) explains, the pursuit of funding is one of the main challenges for a start-up, only a small percentage of start-ups are able to acquire the funding that they needed. For this reason, start-ups are obliged to look for other methods to finance themselves.

Following the argument of Lee (1996), the pressure to find external funding plays an important role in the disposition of start-ups to cooperate with well-established corporations. Lee continues mentioning that, the above leads start-ups to find themselves encouraged to work with corporations. However, the fear of high intrusion to the start-up's activities and the inflexibility of the policies from corporations in regard to patents and research is a highly demoralizing factor for a successful cooperation.

On the other hand, according to Campbell and Slaughter (1995), having had some collaborative experience is a key factor that differentiates the attitudes towards collaborative activity.

2.6. Start-up & Corporate collaboration

According to Imaginatik and Masschallenge (2016), start-ups and corporations have begun working in new ways being more flexible, collaborating in early-stages and creating open-ended partnerships. These considerations involve greater risk though higher rewards.

This paper elaborated by Imaginatik and Masschallenge (2016) includes statistics and surveys on the subjects: interactions with start-ups, corporate innovation models, strategic fits and mindset change. The respondent samples were 112 corporations and 233 start-ups within the following industries: Insurance, education, manufacturing, business/professional services, healthcare, media and non-profit organizations.

2.6.1. Interactions between corporations and start-ups

The data extracted by Imaginatik and Masschallenge (2016) shows that 82% of corporations find somewhat important working with start-ups and exhibits that   67% of corporations prefer collaborating with start-ups at very early stages; corporations also have as top priorities new technologies, business models and industry exploration and find less important financial return.

Imaginatik and Masschallenge (2016) conducted a survey on the successful factors of interactions with start-ups and 45% considered strategic fit the most important factor. Corporations focus on particular objectives although blended portfolios are becoming more common. See the below mentioned chart:

	Core Business	R&D Product	Moonshots
Objective	Leverage startup capabilities to improve operations, costs, or digital technologies within the core business(es)	Work with startups to accelerate new technology development / product innovation	Gain a foothold or strategic presence in disruptive new technology or market spaces
Staff	Project managers and startup scouts	Technologists, data hackers, startup scouts	In-house entrepreneurs, designers, marketers, startup scouts
Mode	Startups as business execution lever	Startups as technology/product development accelerator	Startups as disruptive ecosystem partners / accelerants

Shared Service ←————————————————————————→ Autonomous Unit

Source 3: Imaginatik and Masschallenge (2016). *Objective focus charts.*

The three types of innovation objectives are improving the core business, moon shots or technical or product development. Imaginatik and Masschallenge (2016) identify measures to improve the core business such as: cutting costs, boosting margins or expanding market share. Start-ups are useful when aiming this objective as these are more cost effective and work faster.

Moreover, moon-shot innovation objectives are aimed in order to tackle industry shifts (it is the case of insurance companies) and building business incubators are means to achieve this objective.
Last but not least, the objective of technological or product innovation is particularly common within high-tech and engineering-heavy manufacturing industries when companies plan to commercialize new product lines in their core focus.

2.6.2. Corporations' investment on start-up relationships

As per Imaginatik's and Masschallenge's research (2016), a large number of companies have created programs to create and manage relationships with start-ups. These programs have two purposes:
Start-up scouting, sourcing start-ups that align with the company's strategic innovation interests (placed in cities with high a concentration of start-up activity) and programs with a role of matchmaking, which assist on the mediation interaction processes with business stakeholders.

The data shows that the main corporate resource used for external interactions is dedicated staff and the departments most involved in these interactions are innovation and research and development. The significant benefit of having the innovation department leading the external interactions is the exclusive devotion of time on sourcing and incubating whereas, if another department leaded the external interactions, it would many one task among many others.

Furthermore, many corporate teams have not still deeply developed the innovation department (infancy stage) as they are dependent on the resources provided by the CEO. In addition, 25% of survey respondents are unsure about the innovation budget.

2.7. The start-up economy growth

Imaginatik and Masschallenge (2016) findings display a clear increase of start-up acceptance in the business ecosystem. The supply of academic programs, accelerators and investors is continuously increasing. 99% of start-ups have had or have the desire to work with corporations, on the other hand, 82% of corporations said somewhat is important the interaction with start-ups.

The study conducted by Imaginatik and Masschallenge (2016) identifies two different engagement needs from the start-up's perspective. Corporations can be considered as customers (B2B and B2C).

Source: CB Insights – Global Venture Capital Report Q4 2015
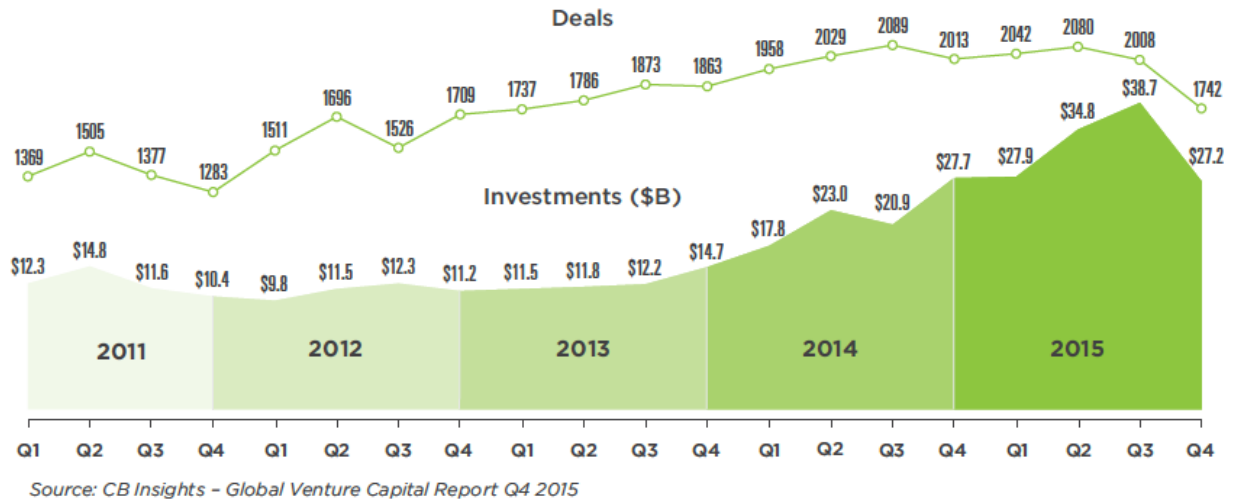
Source 4: CB Insights (2016). *Global Venture Capital Report 2011-2015.*

This graph has been created by CB Insights and showcases the evolution from 2011 to 2015 of the number of deals between start-ups and corporations and the total sum of money of transactions between these two, in billions of dollars. The increase is undeniable.

2.8. Recommendations by Imaginatik and Masschallenge (2016)

2.8.1. Guidance for corporations

According to Imaginatik and Masschallenge (2016) appointing a start-up champion (a control tower for external start-up relationships is a necessary step), establishing internal structures (executive committees or defined devotion of resources) and solidifying a strategy (internal stakeholder nomination and strategy delineation rather than 'everything goes') are initial steps which might draw the path to success of a partnership between a start-up and a corporation.

Furthermore, Imaginatik and Masschallenge (2016) elaborate on the option of 'fast-track processes' can determine the successfulness between a corporation and a start-up; start-ups want loose, fast and early relationships allowing both sides to have potential success, therefore corporations should work early and often with internal departments such as legal, procurement or PR to ensure maximizing

the partnership positive outcome. Additionally, having a filtering capacity between the' good and bad' ones (start-ups) for the business is a key point to establish fruitful relationships.

2.8.2. Guidance for start-ups

Imaginatik and Masschallenge (2016) find being thoughtful and deliberate about the approach to corporations is important to understand the potential positive or negative impact the collaboration can have on the start-up. Moreover, thinking strategically from the corporation's point of view is essential to know where the enterprise wants to go in the future rather than where they have been in order to evaluate if added value can be gained from working with a corporation. In addition, using new channels for engagement such as innovation labs or accelerators should be considered while being aware of possible opportunities and threats.

Figure 1 Collaboration framework, indicating how common types of startup programmes tend to deliver against key objectives to work with startups. Darkness of the field indicates stronger suitability to satisfy key objectives.
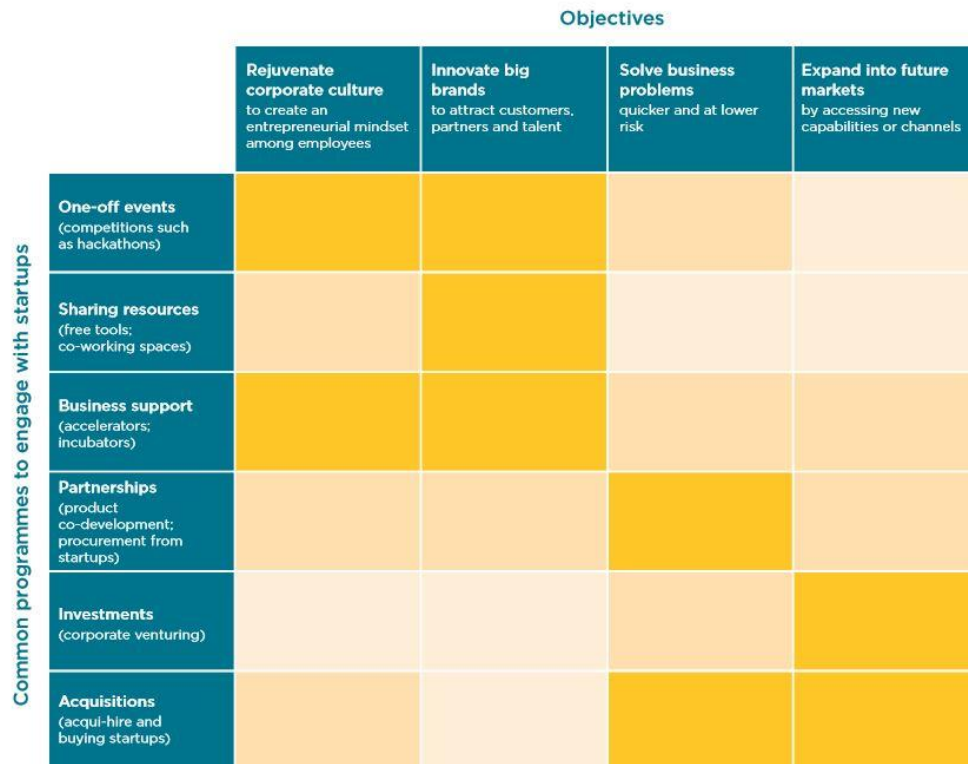
Source 5: Nesta (2015). *Collaboration framework chart.*

To further elaborate on the collaboration framework above, each component programme will be explained.

- One-off events: This programme aims to attract start-ups through corporation's self-contained events. By doing so, the corporation's employees are directly exposed to the entrepreneurial mindset of start-ups and different perspectives of new business trends and technology advances. Additionally, the corporation will be directly associated with innovation by the general public.

- Sharing resources: This option is an affordable way for corporations to constitute a more innovative brand. The corporation must ensure that the resources shared meet the needs and requirements of start-ups. The resources shared tend to be of two types.

  - Free tools: Corporations offer free or cheaper access to their products and services. For instance, when Microsoft or Google provide free access to start-ups to some of their technologies, they are sharing resources.
  - Co-working spaces: Although sharing working spaces is a far more expensive, this option is increasingly common within sharing resources programme. Start-ups can use flexible office spaces and material for free or for affordable rent.

- Business support: The most used business support programmes used by corporations are business incubators and accelerators. These programmes allow early-stage start-ups to reach certain milestones such as making them ready to receive an investment, to entry the market or even to dimension scale. According to Nesta (2015), these business support programmes must be oriented towards the satisfaction of the start-up's needs which will directly enhance the growth of the corporation.

  - Business Incubators: Incubators provide a flexible work environment and connect the start-up with various services. The range of services can vary but tend to be marketing support, law assistance and network connections.
  - Accelerators: These programmes offer very intensive support to the start-up during a specific and pre-set period of time. They provide mentors and a learning environment in which start-ups can learn and establish their business models rapidly, in exchange for a negotiated percentage of equity.

- Partnerships: Partnerships come in a wide variety of shapes and forms depending on the business strategy. They can be both short, mid or long-term. The most attractive for start-ups are the following.

- o Product co-development: This partnership involves a start-up and corporation coming together to develop products or services to solve a business problem of the corporation.

- o Procurement: Start-ups provide corporations with cutting-edge technologies and new approaches of business models. In exchange, the start-up will acquire a corporation as a customer.

- Investments: Also known as corporate venturing, it is a tool to enter new markets and capabilities at a lower capital requirement. By supporting start-ups, corporations aims to acquire direct financial profits, instead of any strategic benefit or access to cutting-edge technology.

- Acquisitions: Acquiring a start-up can be a fast and prosperous way of obtaining capabilities to solve a specific business problem that the corporation is facing at the moment and to penetrate new markets. Acquisitions vary from a total sale or buying out the majority of shares of the company.

2.9. How Business incubators have evolved

Bruneel (2012) explains that business incubators (BI) are popular tools to accelerate the creation of successful entrepreneurial companies. Barrow (2001), Smilor and Gill (1986) and Nesta (2014) state that business incubators are supportive towards new ventures expecting self-sustaining and thriving companies to become; by providing office spaces, shared resources, business support or access to networks and start-ups are seeking for funding in exchange.
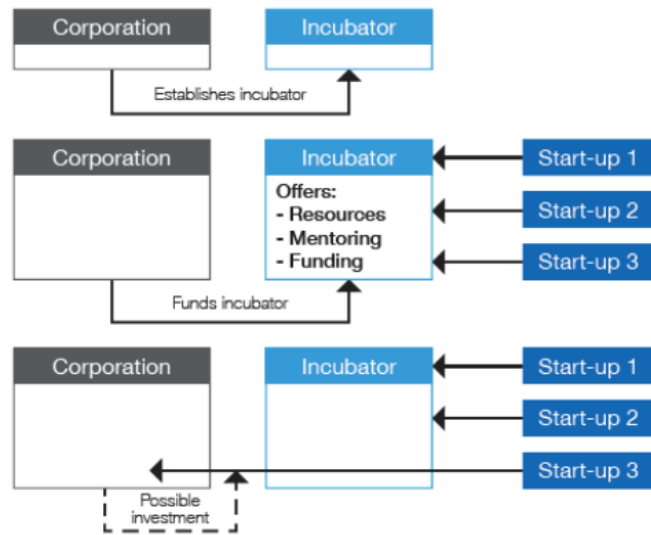
Source 6: Larkin and O'Halloran (2018). *Corporate Incubator Model.*

Lewis (2001) and OECD (1999, 2010) point out that BI's are often publicly funded and that policy makers are interested in BI's being central tools in economic rejuvenation programmes. According to Lalkaka and Bishop (1996) and Nesta (2014), business incubators have evolved over the last decades by providing more support services to accelerate new firms' learning process.

Table 4
Supply of business incubation in the researched BIs.

	First generation		Second generation		Third generation		
	BTC	TF Münster	EEBIC	Jülich TZ	Chalmers Innovation	Normandie Incubation	Innovation Centre @DMU
Infrastructure: – Space – Shared resources	BTC provides turnkey/turnkey office space. Further shared resources include parking, reception and meeting rooms.	TFM provides turnkey/turnkey office space as well as production facilities and mixed units. Further shared resources include reception, parking and meeting rooms.	EEBIC provides turnkey office space as production facilities, laboratories and mixed units. Shared resources such as parking, reception and meeting rooms are also available.	Jülich TZ IC provides turnkey office space as well as production facilities and laboratories.	Chalmers provides turnkey office space as well as laboratories. Shared resources such as parking, reception and meeting rooms are also available.	NI provides turnkey office space to tenants who only pay for it after graduation and interest-free. No further shared resources are included.	IC provides office turnkey space as well as small production facilities (2 units). Further shared resources include parking and reception.
Business support: – Coaching – Training	Tenants access coaching on an ad hoc basis via incubator manager. One tenant is a consultancy firm who provides coaching on a commercial basis and partially funded by external sources. Further training is offered by the coaches and consists of newsletters.	No formal coaching team exists. Training is offered to tenants in the form of information brochures, emails newsletter or punctual group sessions.	Coaching team of three in-house dedicated experts. Their backgrounds cover fields such as accounting, finance, marketing or engineering.	Coaching is provided by a team of two coaches on a part time basis. Training session such as seminars and workshops are organized on regularly basis in collaboration with Aachen Chamber of Commerce	Own coaching team of five multidisciplinary experts: accounting, finance, commercial and business consulting experience.	Coaching team of two dedicated project leaders and a coach manager. Their background is mainly scientific.	Coaching is provided by outsourced coaches. Their backgrounds cover fields such as management, marketing or finance.
Access to Networks: – Professional services – Finance	Access to professional services is provided by request and on demand via incubator staff. ABN is one of the shareholders who may provide financial resources.	Access to professional services is provided by request and on demand via incubator staff. A local savings bank owns 6% of the incubator who may provide financial resources.	Professional services such as patent attorneys, legal counselling or strategy consulting are also available. EEBIC also created its own business angel network in 1999 with as office within the premises.	Professional services: one of the tenants is the Technology Transfer Office of that research centre. Also, a legal consulting firm, an insurance company and a project management consulting firm are located within the premises. One shareholder is a local venture capital fund and it is based within the centre	Close collaboration with Centre for Intellectual Property. Other professional services include contractual agreements with accounting, law and business consulting firms. Chalmers manages its own seed and venture capital funds. Also, it cooperates with local and regional authorities, private venture capitalists and business angels. Chalmers also collaborates intensively with CONNECT.	NI provides a subsidy which can be used for accessing professional services (external advice and expertise) as well as scientific equipment and materials. Access to finance is via a network of contacts including business angels, public and private financial organizations	The IC is part of a regional network to exchange best practice both for incubators and incubatees which includes a grand total of 16 BIs. Through this network, tenants can access professional services such as training or online support. Through this network, tenants can also access preferred sources of finance.

Source 7: Bruneel (2012). *Supply of business incubation in the researched Bis.*

As per Bruneel (2012) there exist three generations of incubators having a specific characteristic:

- Generation 1: Emphasizing on real estate provision. Affordable spaces and business resources. (Lalkaka and Bishop, 1996).
- Generation 2: Intangible services.
- Generation 3: New technology-based firms.

The table above, elaborated by Bruneel (2012), takes into consideration the following key aspects on each of the generations: infrastructure (space and shared resources), business support (coaching and training) and access to networks (professional services and finance).

In terms of infrastructure, Bruneel (2012) does not identify significant differences across generations of BIs. All provide turnkey office space, most offer small workshops and mixed premises for prototyping or small-scale production. Reception, clerical services, parking and meeting rooms exist in every BI.

Regarding business support, Bruneel (2012) finds that BIs of every generation provide coaching to their tenants companies, although there are differences in the way they provide this kind of service. In-house coaching, outsourced coaching and seminars or workshops are some examples.

Finally, Bruneel (2012) analyses business support for each of the generations. The first generation BIs are similar in that provision of professional services is done by request and on demand. Only the second and third generation BIs claimed to provide access to financial resources to their tenants.

Bruneel (2012) concludes only firms located in third generation BIs make full use of the service portfolio. Bruneel's (2012) findings also indicate that older generation BIs are not capable of fully adapting to the newer models of incubation not so much because of difficulties in establishing new services, but due to rigidities in their management practices.

2.10. Transaction process: acquisition between a corporation and a start-up

As Carbone (2011) explains, the reason why many enterprises merge or acquire start-ups is to have more quickly access to technology, markets and customers. In order to acquire or merge; companies need to increase their portfolio of capabilities. Measuring their success is based on how these challenges are implemented.

Carbone (2011) also emphasizes, that when the deal is to be closed between a corporation and a start-up needs to be taken into consideration; the value of technology, the fit of customer solutions, the sales projections and the market valuations. In addition, the form of integration, consolidating the resources in the buyer's or seller's company; and the target for integration, whether the combined entity remains as a standalone unit or is absorbed are of much importance.
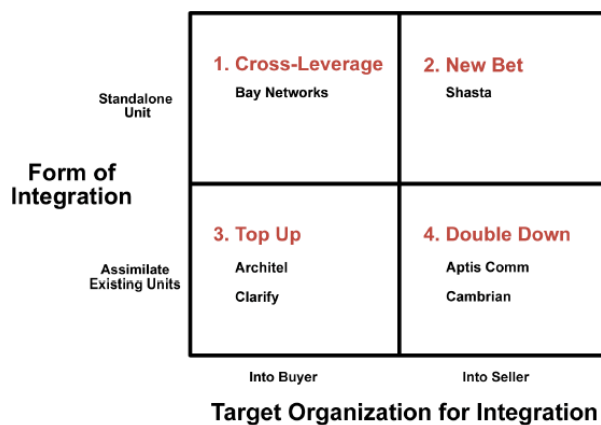
Source 8: Carbone, P. (2011). *Acquisition Integration Models.*

According to *Peter Carbone* (2011) there is 4 different acquisition integration models:

1. **Cross - Leverage:** the acquisition is a separate business unit, but merges the technology and people into the company. (Size matters).
2. **New Bet:** this model turns an acquisition into a new, standalone business unit within the company seeking for a new market segment. (Technology, market targeting and positioning).
3. **Top Up:** breaks up the acquired entity into portfolio elements and consolidates it into the acquiring company. (Market penetration).
4. **Double Down:** model consolidates both companies' assets into the acquired company. (Avoid training a new leadership team).

Steps to maximize the probability of success as per *Peter Carbone (2011):*

1. Maintain a business focus over the business case period used to justify the transaction. Thorough follow-up.
2. Accommodate the size of the acquisition in the integration plan, with a focus on ensuring the business plan is implemented quickly.
3. Ensure compatibility at the level of working-team management, not just the executive level.
4. Bet on the team that has momentum in the market.
5. Ensure absolute clarity around the new purpose, mission, and business objectives of the acquisition.

2.11. Examples of Start-up collaboration with corporations in the Hospitality industry

Important to highlight, that in both cases, the staff and the founders' position are maintained.

2.11.1 Acquisition of Trip.com by Ctrip

The OTA Ctrip (Chinese) has acquired the start-up Trip.com (USA); a travel planning app and website. (Travel trade media and information platform Travel and Tour World, 2017)

Skyscanner (metasearch owned by Ctrip) would be launching personalized travel recommendations powered by the reviews and recommendations of Trip.com. Trip.com strengths are the community, technology and content. (Travel and Tour World, 2017).

2.11.2 Acquisition of Trip Happy by Trivago

Trivago is a German hotel metasearch and TripHappy is an artificial intelligence start-up based in the United States and founded in 2015, which analyses location data from more than 25,000 neighbourhoods in more than 10,000 cities to make personalized recommendations for travellers. TripHappy has more than 2.4 million bookable accommodations, and more than 100,000 trips created via its site (Menze, 2018). Trivago's purpose with this decision as well as with AI start-up Tripl acquisition and Plug and Play partnership is to keep updating its search functionality and invest in machine learning to make it easier for travellers finding their ideal accommodation. (Matta, 2018).

From Trivago's perspective, the start-up and the corporation have their vision aligned and Trivago can think about potential product innovation contributions by the start-up.

2.11.3 Expedia and Alice collaboration the hotel mobile tech start-up

The travelling platform Group Expedia has invested in the start-up Alice specialized in hotel mobile tech (O'Neil, 2015). The start-up had an initial investment round of around 3.5 million dollars. Since the recent investment by Expedia (unknown amount), the start-up was has opened 15 more positions and doubled the number of properties working with, having over 50 hotel groups. (Shashou, 2015)

Alice's cloud-based software interacts with hotel's existing computing systems (Property Management System) streamlining the workflow for the staff (back of the house as well as front staff) to receive, manage, and execute all guest (e.g. room service or late checkouts) and internal requests for every department. Furthermore, guests' requests are through text messaging style communication. In addition, the information can be saved within the PMS. (O'Neil, 2015).
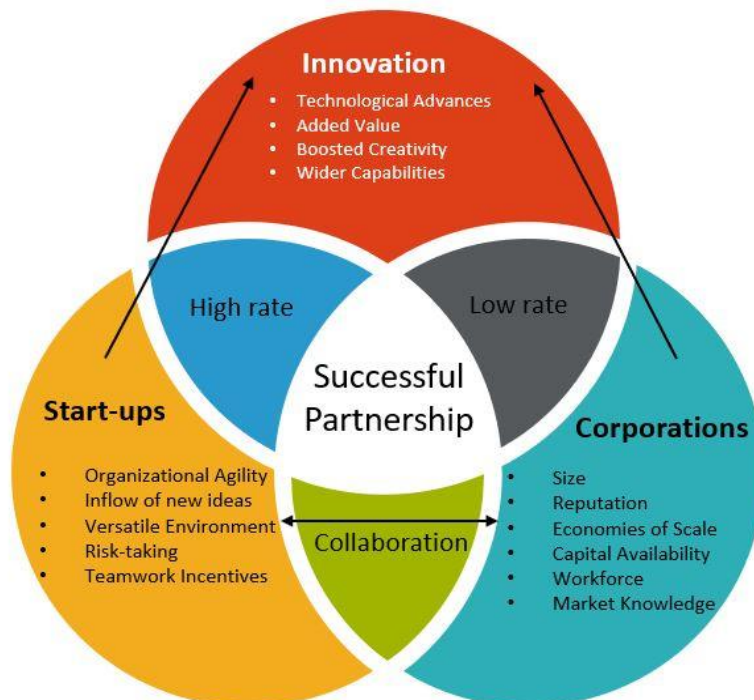
Moreover, Alice just launched Alice Lite, a guest experience management module aiming new customers (O'Neil, 2015).

2.12. Literature Map
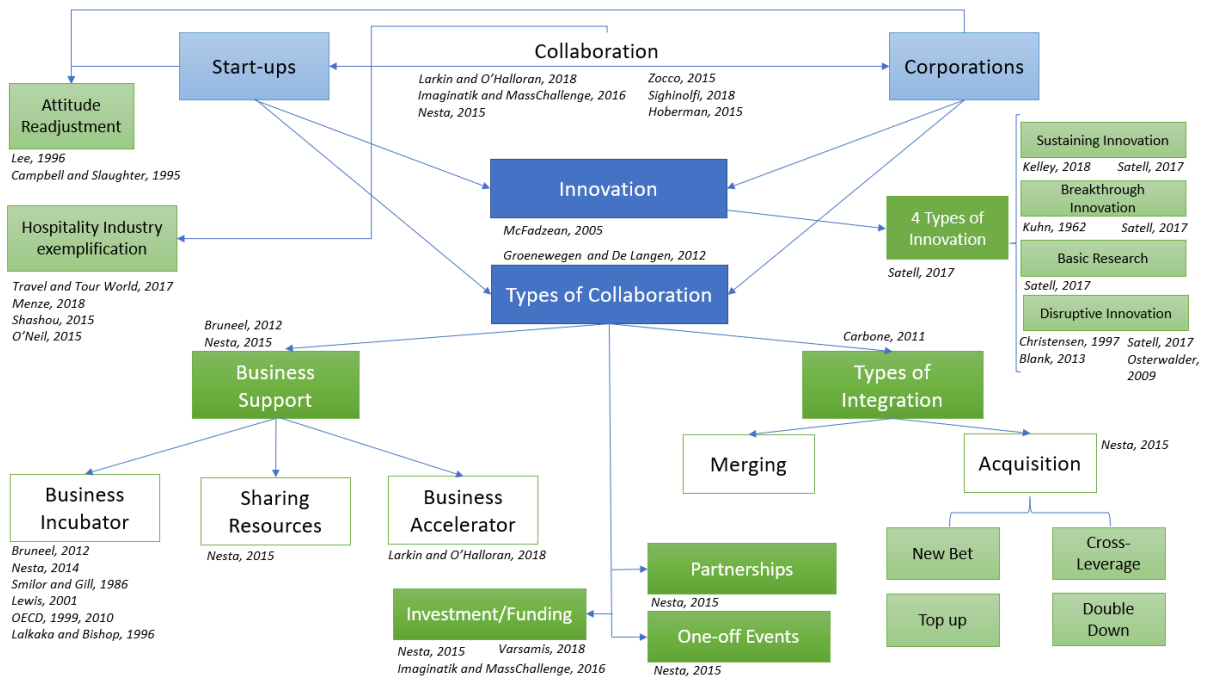
Source 9: *Literature Map. Own creation*.

2.13. Conceptual Framework

Source 10: *Conceptual Framework. Own creation*.

3. Methodology

3.1 Overall research design

The methodology determines the way of approach when researching information for the degree thesis. After analysing the topic and structuring the subject, a qualitative approach was found more convenient for this typology of research. The reason for that decision is the fact that this report requires a deeper and more complex level of research. This report is going to focus on the "why" rather than the "what", hoping to achieve a greater understanding on reasoning rather than on plain numerical data.

For the above-mentioned reason, case studies, historical analysis and theory predominate among our research rather than logical or statistical analysis.

On the other hand, on the final stage of the thesis, financial and statistical data about company financial statements affected by the collaboration strategies between corporations and start-ups will be displayed and evaluated. For this last stage of the thesis, a more quantitative approach will be used, as a more rational and statistical analysis will be needed.

Regarding the kind of data that will be collected. Secondary data has been found more advantageous for this research. Due to the nature of the topic, most of the data will be collected from company reports, various associations and other second-hand information. The reason for this decision comes from the fact that the most valuable information for this report is related to how partnerships between start-ups and corporations work, how to reach mutual understanding and success and failure stories from real case scenarios, among others. Although secondary data is not considered the purest kind of information, it is the most practical to work with in this field of research, as there is currently enough information available for the subject matter.

In relation to the kind of research that will be used to fulfil the previously explained approaches, the report falls upon the category of inductive research. The information extracted from the investigation will be used to create a hypothesis, which will be evaluated and properly assessed.

3.2. Data collection techniques and research instruments:

A research project in order to provide with persuasive evidence and be rationale needs of data collection techniques and research instruments.
Interviews and observation are the methods used to complete this research.

The first method, interviews, was meaningful to be applied as large amounts of data can be obtained at once, in case of doubt clarification is directly possible with the interviewee and it is flexible and

adaptable; by finding the right location, time and individual it can be the perfect chance to extract information. In addition, nonverbal cues can aid on understanding the intention of the interviewee and what he/she wants to express.

However, it is of high importance to carefully elaborate the questions in a strategic way so to receive significant knowledge to the research, to have a comfortable environment and most importantly to be able to identify, select and classify the provided information according to the level of reliability; biased or unbiased. As per the lack of standardization, some information might be unsourced, leaving us to believe a subjective opinion has been expressed.

The typology of interview is exploratory in-depth, as most acquired facts are provided by the papers, explanations or descriptions are not needed, discovering specific facts about concrete cases is required and even there will be guiding questions there will not be a traditional structure or instrument protocol.

Rationality and proper categorization of information is important as aforementioned, therefore the HTSI thesis framework suggestions should be taken into consideration to exploit the interview quality time the most. Not exceeding 90 minutes, asking about confidentiality or anonymity, request for permission for recording, study the sequence of questions or using follow-up questions are the valuable hints to take into account.

Regarding the second method, observation of certain potential sources of information mainly through technology is a key research method the thesis. For instance, analysing presentations of keynote speakers or documents mostly, will contribute with weighty facts.
Perception of company's behaviour to face barriers may show tendencies or patterns in the industry, which can help to develop our conclusions.

3.3. Research context:

In order to have a clear point of view of both sides of partnerships, it has been decided that a representative of both start-ups and corporations must interviewed. For this reason, Subject 1 will be an individual with first-hand experience in a business accelerator from a large renown Spanish corporation. Subject 1 will be key to understand early-stage start-ups and what are the common challenges that they experience during their maturity phase. Additionally, Subject 1 will provide insights about what sort of support and the aims and objectives accelerators have for start-ups.

Representing start-ups, Subject 2 is a current entrepreneur and start-up owner that is employed by another start-up at the same time. For this reason, Subject 2 can provide numerous insights about the start-up environment, the challenges that start-ups face and the thoughts on potential partnerships with corporations.

The last individual to be interviewed, namely Subject 3, is currently working for a venture capital firm. This last Subject will provide useful information over this particular type of partnership and what do venture capital firms look for when seeking a start-up to invest in. Additionally, Subject 3 will elaborate on the process of acquisition and the outcomes of these collaborations.

At the moment, there is no intention to conduct other interviews, as each point of view will be covered. However, the research does not discard the possibility of increasing the number of interviewees if a suitable candidate that can provide any additional value to the research arises.

3.5. Ethical considerations

As part of the fieldwork study, different sources of data can be used. The data from human participants in this thesis has been collected from the three aforementioned different interviews that have been conducted.

The risk category of these interviews is number one; the participants in this research did not need third party authorization, neither are from a vulnerable collective, psychological or physical consequence were never possible outcomes, the questions are not intrusive or invasive and financial incentives were never suggested by the participants.

The information provided by each of the subjects is strictly confidential, in this thesis there is a background of the person and the company he/she works for and for each of the answers a full display and the detailed information, however the names of the participants are completely anonymous as well as the name of the company. Even in the content of the thesis itself the identity of the interviewees is anonymous, in the appendix the identity of the subjects will be displayed unless the participant wishes the opposite. According to the marked boxes in the authorization form, the authors of the thesis will exhibit the names in the appendix or display a subject denomination.

The extracted data from the interviews is analysed and an argumentative part will succeed including the key points considered significant for the thesis as per the participants' responses.

4. Findings and Discussion

4.1. Literature Review

Many authors agree that collaborations between start-ups and corporations are not optional anymore, as start-ups have begun challenging the authority of established corporations due to their cutting-edge technological advances and their agile work-processes. However, having a quicker access to technology, new markets and new customers, hands corporations a once in a lifetime opportunity as long as there is collaboration.

As explained above, these collaborations often come along with various drawbacks. This is due to a clash of corporate cultures and having opposite mindsets, which leads to a drastic decrease in the effectiveness of these collaborations.

On the other hand, if the collaboration becomes effective and successful, it will result in a win-win scenario, where corporations will be able to improve their core business, improve their adaptability and diversify their product portfolio, reaching new customers and markets. Start-ups will also benefit by being able to get the funding, the resources and the market knowledge that they need in order to develop their own products.

There are different types of collaboration between corporations and start-ups aiming to find solutions in different ways for distinct situations.

	What is the aim?	How to make it happen?	How to ensure collaboration's success?
Merging and acquisition	To have more quickly access to technology, markets and customers.	Evaluation of the value of technology, the fit of customer solutions, the sales projections and	Thorough follow-up, rapid implementation of the integration plan, working team's compatibility,

		the market valuations of the corporation.	team momentum empowerment and clarity in the new purpose.
Business support: incubation (early stage) and acceleration (later stage).	To accelerate the creation of successful entrepreneurial companies, to receive an investment, to entry the market or even to dimension scale; the corporation can enhance growth in exchange.	Corporations can provide infrastructure (space and shared resources), business support (coaching and training) or/and access to networks (professional services and finance).	Flexibility to find the right alignment and company fit.
One off events	The corporation wants to be associated with innovation.	By attracting start-ups through corporation's events.	Corporation's employees' exposure to entrepreneurs' business trends and technology advances.
Investment/funding	Corporations aim to enter new markets and gain capabilities at a lower capital requirement and acquire direct financial profits while start-ups aim financing.	By supporting startups and cooperation.	Right identification of needs.
Partnerships	Corporations seek solving a business problem and find new approaches of business models. Start-ups wish to acquire a corporation as a customer.	Together by developing products or services or by start-ups providing corporations with cutting-edge technologies.	Finding the right partnership and teamwork fit.

Source 13: *Successful Collaboration Chart according to Literature Review. Own Creation.*

The three primary interviews were done to members from both sides of partnerships, in order to have a clear perspective from each side. Subject 1 has first-hand experience in Wayra, a business accelerator that belongs to Telefonica; a large Spanish telecommunications corporation. Subject 1 brought to the table valuable insights that were essential to understand the mentality of early-stage start-ups, business accelerators work and what are the main takeaways each party acquires from this collaboration. As well as common challenges experienced during this process.

In representation of start-ups, Subject 2 is an early-stage start-up owner that is currently employed by another start-up as well. Subject 2 provided numerous insights about the current situation of start-ups in the market, the challenges that start-ups face, the optimal environment for the creation of a start-up and his thoughts on potential partnerships with corporations.

Subject 3, is currently working for a venture capital firm. Subject 3 provided useful information over investment and funding of early-stage start-ups, as well as acquisitions. Subject 3 will dive deeper on what do venture capital firms look for when seeking a start-up to invest in and add to their portfolio. Additionally, Subject 3 will elaborate on the process of acquisition and the outcomes of these collaborations.

The three remaining interviews have been taken as secondary source of data. The three interviewees work in TUI, the world's largest travel company, and they will give more focused insights on start-ups collaborations with corporations in the Hospitality industry.

4.2.1. Subject 1: Wayra mentor and investor

The first subject explained how the path to success for a start-up is never an easy way. Even through an accelerator program like the Wayra project, only around 30% of start-ups end up being considered as successful. However, entering into an accelerator program surely has benefits which can make the difference in terms of the start-up's success. The subject explained how in around a year, accelerators drastically speed up the growth of start-ups and

how valuable are the expertise and resources provided to the collaborating start-ups. In exchange, start-ups must give up on around 7-10% of the company's equity. Although, it is not an easy task to pass the selection process to become part of any accelerator program. As the subject discussed, start-ups must already have a trustworthy team of professionals committed to the project, a way to justify that there is a market for the business product that they are offering and new and featured technological advances. All these conditions allow the start-ups to prove themselves and reduce the risk that the accelerator assumes when deciding to invest time and resources in a start-up.

The subject also elaborated on the personality traits that were common in most entrepreneurs. They all have a vision of the future, they are creative and innovative, willing to assume risks and take charge. They also believe in themselves, value efficiency and quality, they always seek self-improvement and value having control and some sort of independence. All these traits are essential to understand the mindset of a start-up, always in change, agile work processes and adaptable and comfortable when taking risks. From the perspective of this subject, the key factors for successful partnerships can be summarised as: Attractiveness from the investing party into the start-up, a clear entrepreneurial mindset from the start-up to scale at a fast pace and proper customer fit between the two companies.

4.2.2. Subject 2: Entrepreneur, R&D and CPU Design and Verification engineer

The interview with Subject 2 was divided into two blocks. The first one aims to dig into his experience as an employee of a start-up and the second one aims to learn more about his own start-up and the challenges he had to overcome.

Subject 2 argued that working for a start-up certainly has several advantages. Firstly, start-ups count with a more challenging work environment and increase in responsibilities, due to their work process and mindset. Secondly, working for a start-up grants access to the latest innovation and cutting-edge technology. As well as the fact that working for a start-up usually provides the opportunity of buying stocks of the company before entering to the stock market, which means that the price will be cheaper and employees will have a share of the equity of the company.

Subject 2 explains that the best ecosystems for start-ups are in the west, especially in the US. Western societies tend to be more open minded and more willing to provide funding, an important aspect to consider, as start-ups tend to struggle to find this funding to start operating. Additionally, according to subject 2, it is cheaper to start a company in the west and the requirements tend to be less. Subject 2 explains how start-ups have extremely strict confidentiality policies, in order to safeguard their innovation. For an employee of a start-up it is forbidden to use the knowledge or even work for any company in the same sector. However, subject 2 argues that start-ups have competitive advantages over corporations such as less bureaucracy, faster decision processes, increased willingness to take risks and a high power of adaptability. All these competitive advantages lead to the thought that, start-ups have entered the market to stay, they are not just a trend.

When talking about the own start-up of subject 2, he argues that the possibility to partner with a corporation is always there. However, it is more likely that a corporation simply acquires a start-up, adding the business product to the corporation's portfolio. From subject 2's point of view, other kind of partnerships are not really that common in the technology industry. Subject 2 explains that the main challenge that he encountered when creating his own start-up is finding the proper labour. Personnel of a start-up must want to work more for stocks than actual cash. Subject 2 continues stating that finance is always an issue, as there is not enough money to cover all the costs, so stocks have to be paid out in exchange, resulting in losing part of the equity. Additionally, most investors are not interested in a product unless there are paid customers already. They do so to minimize the risks. However, subject 2 argues that once there are paid customers, there is no reed for any investment. To wrap up the interview, subject 2 explains his reasons that lead him to create his own start-up. This reasoning is mainly aimed at believing in an idea and desiring to make it successful, at taking full credit when things go right and full responsibility when things go wrong, at creating something unique and facing the challenge. From subject 2's opinion, economic benefit should be secondary.

4.2.3 Subject 3: Ysios Capital principal

The third subject, due to being responsible in the identification of investment opportunities for Ysios Capital, elaborated on the factors that are taken into account when considering

collaborating with a start-up. Subject 3 gives importance to the current management team of the start-up, their knowhow and their experience is a key factor when deciding whether to invest in a start-up. Subject 3 also mentions how the product has to be attractive and a good fit to Ysios Capital, as well as a clear business plan with well-defined milestones and the entry barriers that are being experienced by the start-up. Subject 3 argues that venture capital firms tend to do risk evaluation plans before deciding whether to invest in a start-up or not. These risk evaluation plans are aimed to balance the risk and liquidity against the stage of investment that is needed. Furthermore, the risk evaluation plan will include the capital needs of the start-up and various ratios that determine the relation between risk and return in that specific investment. Subject 3 explains that venture capitals tend to not interfere in regards to the start-ups management, instead they will oversee the development of both the company and its management team. However, if any problem is detected, venture capitals tend to propose action plans, which might involve the substitution or the addition of members to the management team of the start-up.
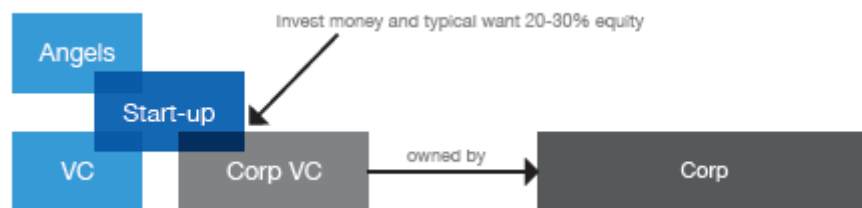
Source 14: Larkin and O'Halloran (2018). *Collaboration process.*

According to subject 3, the factors that determine whether a partnership will be successful or not tend to be very similar in most cases. These factors include the proper execution of the initial investment plan, the non-incurrence in delays, the competitive advantage in terms of positioning that the start-up hold in relation to the rest of the market, the strength of the start-up's management team and the good fit between start-up and corporation.

Following up with the explanations of subject 3, many venture capital firms tend to work in pre-set milestones. Once the start-up reaches a specific milestone, the corporation will incentivize the start-up with additional capital.

When asking subject 3 about his opinion on the importance of collaborations between start-ups and corporations in the near future, subject 3 explained that, from his perspective, every day is more obvious that these collaborations are key to the development of both start-ups and corporations. Essentially, good relationships may evolve into other kind of collaborations, as a simple investment might lead into an acquisition in the future.

4.2.4. Secondary Interviews: TUI AG and Plug&Play partnership

The secondary interviews are altogether and have three subjects, all working or having worked for TUI. Firstly, there is Subject 4, currently the head of blockchain engineering and previously was a group strategy manager of TUI, secondly Subject 5, is a management trainee at TUI and thirdly, Subject 6 , TUI's strategic innovation manager. The three subjects contributed within the case study: TUI AG (corporation) and Plug&Play (start-up) partnership.

TUI collaborates with Plug & Play to expand its portfolio of products and services and to strengthen its global presence, as the start-ups subscribed in Plug & Play provide with innovative solutions. Plug & Play has access to a vast network of start-ups globally; among these many have potential value and currently one of them is in an advanced stage (POC).
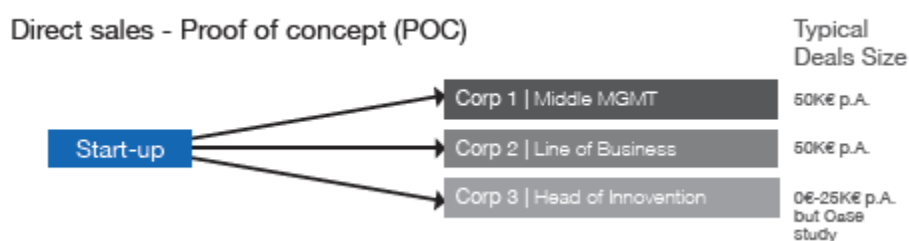
Source 15: Larkin and O'Halloran (2018). *Direct sales – Proof of concept (POC).*

According to one of the subjects, TUI has a collaboration process that includes: a scouting phase, filtering phase, negotiation phase and execution phase (the last means a formalized engagement to work together). TUI's professionals discuss whether this process should be taken over by a hub with operational responsibilities, an internal extensive network or a team devoted to internal process management of start-ups. Moreover, some of the drawbacks

exposed by the interviewees are lack of proper process integration and unclear responsibilities, budgets and deliverables.

On the other hand, the specialists explain that there are critical success factors for such collaboration including a fully dedicated project manager to the collaboration, dedicated budget to the start-ups, internal corporate education on start-ups, match both parties' needs, understand the management of processes, thorough selection of start-ups and creation of internal interest.

To summarize, from the experts' insights can be concluded that a collaboration between a start-up providing a start-up network to a corporation can become successful. As a consequence, TUI's expectations include making its brand innovative and maintaining its world leading position in the travel industry.

4.3 Successful Collaboration Framework:

	What is the aim?	How to make it happen?	How to ensure collaboration's success?
Merging and acquisition	Entrepreneurs aim for payout while corporations aim for growth and complement their businesses with useful technology provided by the start-up.	Ideally, through the integration of all the different elements, departments and resources forming the start-up onto the corporation.	The corporation should analyse the business plan; including the resources, vision and mission as well as the customers, markets and products of the start-up. The start-up must play with the opportunity cost of continuing on its own or being acquired, and the benefit to be gained from the transaction.
Business support: incubation (early stage) and acceleration (later stage).	Start-ups seek scaling and corporations' part of the start-up's equity.	Corporations can provide any kind of resources and support, either tangible or intangible, that they	The capacity of adaptation of both parties and objective, thought-out feedback from the corporation are key to make it a successful collaboration.

		have available to the start-up, in exchange of a share of the start-up (equity).	
One off events	Start-ups can network and establish relationships and corporations can gain technology related knowledge.	Event promotion.	Synergy between entrepreneurs and corporation's employees and good fit between the two companies.
Investment/funding	Corporations aim high returns on investment and impact on other businesses currently owned while start-ups aim for a healthy cashflow.	Mutual harmony and trust, as well as full disclosure of information on behalf of the start-up.	Proper evaluation of alternatives and potential competitors.
Partnerships	Corporations need to complement with someone who might have what they need as well as heading on a different direction. Start-ups want a B2C future relationship with a corporation.	Start-ups can provide with technology or collaborate within the production processes.	Similarities within the working departments and certain flexibility.

Source 16: *Final Successful Collaboration Framework by Sanz and Terol, 2019. Own Creation.*

5. Conclusions and Recommendations

This research aimed to identify the factors that determine the success of a collaboration between a corporation and a start-up.

Based on qualitative data obtained from papers and direct interviews as well as from secondary interviews, it can be concluded that identifying the needs of the company from both sides' perspective is a first step to decide whether a collaboration can be fruitful. The external and internal environment have to be analysed in depth in order to plan the best solution/collaboration method to fulfil the desired purposes. The results indicate that each engagement program has advantages and drawbacks, which need to be considered according to each parties' prioritization. The collaboration methods include one-off events, sharing resources, business support (incubators and accelerators), partnerships, investments and merging/acquisitions.

In regard to general goals of start-ups and enterprises; start-ups intent on growing rapidly and increase their visibility in the market, while ventures wish to take advantage of the technology related developments of start-ups by using them as resources or by gaining direct return on investment from the collaboration. Furthermore, start-ups cooperating with firms is becoming more a need rather than an option due to the level of demand in the current general market constantly exposed to a changing environment. The key in a partnership is the combination of forces elevating the strengths of each to reach complementarity.

With respect to what makes prosperous a relationship between a start-up and a venture there shall be mentioned a high capacity of adaptation and flexibility, mutual understanding of interests; and acknowledgement of expectations, incentives and corporate culture. Likewise, the similarities between teams of employees/departments, the proper evaluation of alternatives and most importantly the corporation's thorough study of a business plan and start-up's transaction opportunity cost evaluation are more factors to recognize. Moreover, as aforementioned, each type of engagement can have distinct obstacles, benefits; therefore, success factors. In addition, the roles and responsibilities of each party must be clearly described and both parties shall identify and create a specific model of collaboration that fits their need and current situation.

Concerning the hospitality industry, the case study of TUI AG and Plug&Play exhibits the reasoning behind deciding to complete a collaboration; TUI desires to be seen as an innovative brand and reach every single customer in the travelling industry through a network of start-ups provided by Plug&Play.

To finalize, as the world is rapidly changing, the 'collaboration solution' will become more and more necessary over time. Start-ups have brought innovation to many traditional and stagnated sectors and corporations are starting to see them not as a threat but as an opportunity to grow. New customers, new markets and a more diversified portfolio are just the surface of opportunities that corporations will acquire by effectively collaborating with the proper start-ups. For this reason, the supply of academic programs, accelerators and investors is continuously increasing and the number of start-ups is growing as well as the start-ups see working with corporations as the way to enter such competitive markets. The proper engagement between both parties can be a 'win-win' situation with the proper risk evaluation and investigation of opportunities as long as both parties learn to understand each other and to find a firm common ground to work with.

6. Limitations to the research

In regards of the limitations of this research, there were several that became an obstacle when trying to expand the research project.

Due to the nature of the research topic, it was not possible to conduct any type of research method other than interviews, as it is a very specific and relatively new topic. Surveys would have been of no use and observation would be too subjective and unable to be properly analysed. For this reason, there was only the possibility on conducting a qualitative-oriented research.

A total of six interviews were conducted and analysed in this thesis. Three of them are extracted as primary source and the three remaining ones are secondary source. The reasoning behind those numbers is that finding suitable candidates to be interviewed became a challenge, as either they were too busy to attend an interview, or they would not be able to provide the kind of insights that were needed. Additionally, time constraints became an issue when trying to arrange extra

interviews. For this reason, the solution was found by adding three extra interviews with valuable insights but from a secondary source of information.

In addition, due to the fact that the topic is relatively new, there was a lack of information available to be used. This limited the extend of the research and forced the researches to find more direct sources of data.

7. Further Research

This study on the success factors of a collaboration between start-ups and corporations aims to contribute in the research of the topic. The investigation can be extended to any sub themes and there can be greater exemplification of many other cases in different scenarios. The explored theory can be applied to any industry and be of use for entrepreneurs and businesses who wish to continue lengthening or put into practice the argument and the data extracted.

Considering this method an on-growing practice, research on such a subject will probably continue on the rise and there might appear new approaches, problems and solutions. Thus, will broaden the availability of information and therefore reduce the limitations.

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9. Appendix

FACULTAD DE TURISMO Y DIRECCIÓN HOTELERA SANT IGNASI
UNIVERSIDAD RAMON LLULL

Title: Utility of adaptive designs in publicly funded clinical trials

Consent Form for Interviews: a Qualitative Sub-study

Thank you for reading the information sheet about the interview sub-study. If you are happy to participate then please complete and sign the form below. Please initial the boxes below to confirm that you agree with each statement:

Please Initial box:

I confirm that I have read and understood the information sheet dated **04/2019** and have had the opportunity to ask questions.

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline.

I understand that my responses will be kept strictly confidential. I understand that my name will not be linked with the research materials and will not be identified or identifiable in the report or reports that result from the research.

I agree for this interview to be tape-recorded. I understand that the audio recording made of this interview will be used only for analysis and that extracts from the interview, from which I would not be personally identified, may be used in any conference presentation, report or journal article developed as a result of the research. I understand that no other use will be made of the recording without my written permission, and that no one outside the research team will be allowed access to the original recording.

I agree that my anonymised data will be kept for future research purposes such as publications related to this study after the completion of the study.

I agree to take part in this interview.

_____   _____   _____
Name of participant   Date   Signature

_____   _____   _____
Principal Investigators   Date   Signature

To be counter-signed and dated electronically for telephone interviews or in the presence of the participant for face to face interviews

Copies: *Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, and the information sheet. A copy of the signed and dated consent form should be placed in the main project file which must be kept in a secure location.*

Participant interview consent form dated 04/04/2019   Page 1