POLITECNICO DI MILANO

SCHOOL OF INDUSTRIAL AND INFORMATION ENGINEERING

MASTER OF SCIENCE IN MANAGEMENT ENGINEERING

STRUCTURES THAT COMPANIES CREATE TO ACCELERATE START-UPS

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Alla mia famiglia

- Graham, Paul. (@paulg)-

“YC is now getting just over 1 application per minute.”

11:26 PM, 10 Oct 2011. Tweet.

Abstract

Alongside globalized and high-tech world, opportunities are most of the times around the corner. The crucial stage frankly is the first step that should be set in advance. To help, there are several start-up acceleration programs that mentor and support companies throughout the beginning of their voyage. In this context, accelerator phenomenon started to grow in the United States, but also gradually in the other parts of the world. Noticeable, Y Combinator the first accelerator program had drawn the attention of the entrepreneurial community and still constantly exploring potential start-up ventures, then followed by Techstar. Similarly, corporate accelerator is specific form of seed accelerator: large corporations invest in start-ups as a part of their corporate strategy. Both seed and corporate accelerators support early stage start-ups through capital, mentorship, and often office space, resources to move the business forward. This thesis explores corporate accelerators. I built a wide-ranging database of corporate accelerator programs by focusing on two largely U.S. and Europe capitalized markets. Also, I provide with recent data that corporate accelerators have been growing considerably over the past few years. However, with a study of corporate acceleration programs and their main future trends in U.S and Europe, this thesis will build some recommendations, key features and types a corporate accelerate phenomenon as well as provide insights into the business acceleration for the growing entrepreneurial society.

Keywords: Entrepreneurship; Start-ups; Corporate Start-up Accelerators; Business Accelerators; Acceleration; Incubation

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Executive Summary

Obviously to start is somehow refers to start a journey or activity. To start something means an expected future outcome with more or less positive anticipations. To start requires a prediction for the future at first glance, with an apparent plan or an objective at a minimum. If starting has such a big amount of implications so, it is better to spend a great deal of effort to give it a healthy baseline to the set of ideas.

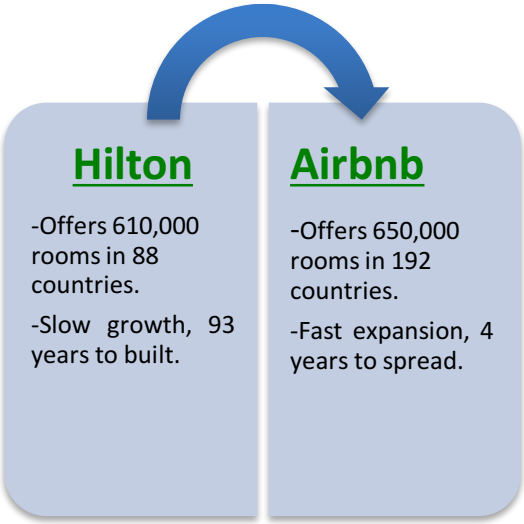
This is the reasoning behind start-up accelerator programs. These programs were created to help entrepreneurs expand their ideas, which triggers a better start, before they go on to find investors or join an incubator. In this context, the first accelerator Y Combinator was originally established in Silicon Valley by Paul Graham, who was former entrepreneur and followed by TechStar with the same outline in 2007 in Boulder aimed to promote local improvement of region. Both Y Combinator and TechStar business acceleration model become benchmarks to be followed, inspiring hundreds of similar programs worldwide (Salido, Sabas & Freixas, 2013).

A decade ago, accelerator programs were not sophisticated and accepting entrepreneurs no matter their project is about. But, today, accelerators offer diversified programs into vertical focused programs that are open to all, but quite competitive. Starting from 2010 corporations enter this phenomenon as they understand importance of accelerating star-ups and benefits that it brings. Microsoft, Telefonica and Citrix were initiators of this process.

The popularity also spread to universities as it is new trend that top schools offer these kind programs as well. Politecnico di Milano in this point of view, as one of the top European school, has its own start-up incubator – i.e. PoliHub – running an accelerator program, which is crucial to understand the kind of accelerators that should be developed on campus, to face the need of supporting the growing entrepreneurial community of current students, professors, staff, and alumni with the sharing of expertise, and providing access to the network. In this framework, this work aims to map the current research on the corporate acceleration phenomenon and its evolution during last decade, while comparing and contrasting major corporations' acceleration programs.

Motivation of the thesis

The idea of studying corporate accelerators came from an interest in the business course, where we have taught the importance of innovation and its manifestation by professor Cristina Rossi Lamastra. It is no secret that the market trends change rapidly, thus I always wonder how business ecosystems keep up with this pace. An expanding number of well-known organizations have recently propelled corporate accelerator programs to connect with entrepreneurial community and making this around the world. But, some failed to exploit benefits of innovation such as Nokia, Kodak and many more. Thus, by leveraging new organizational structures and investing in new technologies through accelerator programs companies can protect themselves from market disruptive actions otherwise they become out of market in a worst scenario. Many successful start-ups graduated from accelerators may act as "exponential organizations" meaning that their output are ten times higher than that of their peers, as it is explained by Salim Ismail in his book "Exponential Organizations". In order to understand it, let us take the famous example of the online hospitality marketplace of Airbnb, which is currently exceeding the one Hilton.



How Airbnb reached that level of "exponential organization" is guided by leveraging assets, which are temporarily available rooms and apartments instead of owning them. On this way, Airbnb become a serious competitor to hospitality business within a shorter time frame than anyone could expect as an infant company from Y Combinator.

Chapter 1

INTRODUCTION

The start-up acceleration phenomenon is a recent trend in the field of entrepreneurship, impacting academia, policy makers and practitioners, but not yet fully researched or understood. The existing literature on business incubators, technology transfer and corporate entrepreneurship provide few indications on how to interpret the acceleration phenomenon, justifying the case for an in-depth analysis on how accelerators differentiate from existing programs. From a Business Insider article; more and more people are skipping the office and working for themselves instead. According to Bureau of Labor Statistics, self-employees makes 10 per cent of the workforce overall and that makes 15 million workers in the United States (Farzan, 2015). This tendency is associated with in overall comprehensive progress, where SMEs globally playing a key role for economic development. Ernst & Young Jordan country leader Barkawi (2015) stated in his article that "SME's on average contribute 50% or more to the GDP and provide employment which estimated 60% of local workforce; create up to 70% new job opportunities and account for about 30% of exports". However, everything is not as easy as it seems to build a business where entrepreneurs confronted with many challenges. Big difficulties make them much eager to "*carry the torch*" through the end of marathon. For these reasons, their mindset and given support by internal and external environment should be strong enough to overcome failures and difficulties not give up on first trial, just like Thomas Edison motto: "I have not failed, I have found 1000 ways that doesn't work".

Start-up accelerators are generally established by large enterprises instead of individual managers in order to come continuously better performance products and make resources accessible. In fact, a recent study estimated that 30 per cent of all accelerators in Europe were backed by corporate entities as of 2015 (Mocker, 2015). In U.S. the number of accelerators have increased significantly (approximately 50 per cent each year between 2008 and 2014). A recent analysis published by the Brookings Institution (2016), has pinpointed that 172 U.S. based accelerators programs were created during the 10 years, between 2005–2015 period as indicated in *Figure 1.1*.

These 172 U.S. based accelerators invested in more than 5,000 start-ups and these companies have raised a total of $19.5 billion in funding, in others word $3.7 million per company. Undoubtedly, these founding will continue, as accelerator programs remain to increase and help recent graduates till maturity phase. In reality, some well-known organizations also originated from accelerators, like Airbnb and Dropbox called *'unicorn hunters'* where they raised billions of dollars.

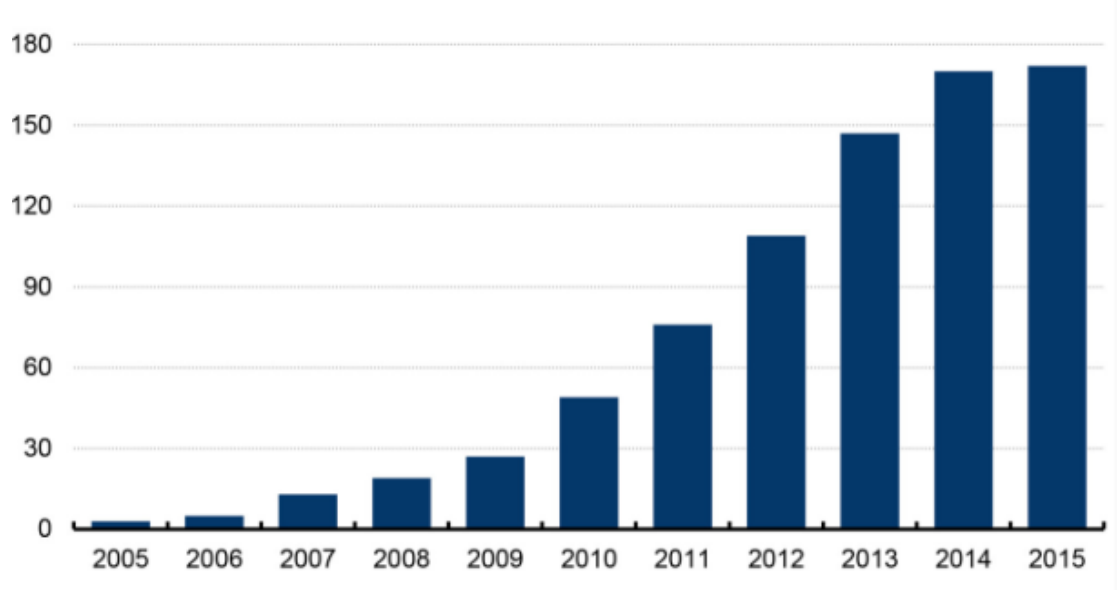


Figure 1.1: Number of accelerators in U.S. during ten-year period. (*Source: Pitchbook data, primary research, author's calculations)*

The entrance of accelerators in entrepreneurial ecosystems is welcomed by many stakeholders like government, industry, universities whose the main purpose is to stimulate entrepreneurship. But, others warn about potentially negative effects between start-ups and sponsoring organizations, such as conflicts of interest in a given product or service.

These dialogues are still vital to understand the real phenomenon of corporate accelerators, but lack of academic studies, put limitations on investigations because research on the topic is still limited. Two leading scholars Yael Hochberg and Susan Cohen were the first ones who offered definitions for corporate accelerators. Also, authors such as Kanbach and Stubner (2016) explained main types of corporate accelerators based on their objectives and Mocker et al in (2015) and Cohen (2013) described some contextual investigations for some selected corporate accelerators in U.S.

1.1 Research Questions

Here, I proposed the main research questions, which I will try to answer with my thesis so as to cover the main aspects of the corporate accelerator phenomenon by giving visions into some accumulated information. Thereby, I concentrated especially on questions that I believed would lead me to cover main aspects of research and to keep the topic within borders:

1. What are corporate accelerators?
2. Approximately how many currently exist?
3. What are the difference among accelerators, incubators and (corporate) venture capital?
4. Are they likely to become common practice in business environment?
5. What kinds of companies launch corporate accelerators (in which industries do they operate)?
6. How successful corporate accelerator programs integrated?
7. Do accelerators have the potential to job creation and economic growth?

These are the main research questions of studies on corporate accelerators, whereas reliable data needed to convey further analysis. It is also important to know predominantly in which industries corporate accelerators are included and whether they cause economic growth or not. The crucial questions stated above requires understanding the accelerator phenomenon from its roots.

1.2 Historical Emergence

In our today's world, the notion of "entrepreneur" could be used both as name and as well as an adjective before several occupations. When it is mentioned an entrepreneur doctor, policeman, bureaucrat, teacher or academician we could think of individuals who advanced its own approaches that produce personal or social benefits in their fields or focused area. Thus, in sociological sense entrepreneurships brings vital welfare in everyday life segments and history is full of examples of these facts in every corner around the world. However, entrepreneurship inside an accelerator program or as a form of freelancer is used

as an economic activity that stands for processes run by these programs, which produce commercial activities by organizing resources under the motive of 'profit'.

After that period, famous economist Joseph A. Schumpeter added new dimensions to entrepreneurship where he took out of this concept from 'static environment' and added into very 'dynamic environment'. Moreover, he argued in his famous book called '*Business Cycles'* adding innovation to the production factors triggers entrepreneurs from static environment, thus initiating economic development. Nowadays, finding new markets, opportunities such as broad application of digital technologies and playing according to market calls takes entrepreneurship to the utmost dimension, which is very dynamic and very competitive.

During late1990s, launching a business with the help of modern technology was becoming cheaper and simpler. Accordingly, great deal of technological and digital companies started to arise referring 'the boom of dotcom stream started to flourish in the late 1990s, becoming individual's everyday life as internet expanded' (Geier, 2015). Therefore, the productivity began to develop at high rates both in US and Europe, whereas U.S organizations increased their direct investment to overseas countries with $1.2 trillion between 1991-2001 period, caused economic development and demand for labour (Mandel, 2002). Nonetheless, in Europe data disclosed also high growth of investment and productivity. In spite of this growth, European risk capital markets remain fragmented and the gap with the US is still widening. Since the adoption of the Action Plan in 1998, overall venture capital investment in Europe has increased three times over and investment in "early stage" venture capital has increased four times (European Commission 2001).

The early 2000's recession was a decline in economic activity, led to economic crisis in EU, U.S and also to other developed countries. During that time companies were not able to keep at the same pace of growth, led to disappointment of investors. Therefore, business incubator concept was born and can be defined as 'supporting new businesses through early stages' (Miller and Bound 2011). This concept is familiar business ecosystem around 1960s, then started to evolve from 1980s with great appreciation by business environment. In contrast, market itself after two decades revealed that the spread of incubator was not enough to support the healthy development of start-ups since the beginning of 2000s. Because increase of dotcom businesses changed approaches towards

entrepreneurship. Thereby, taking into account the dramatic end of incubators in the late 2000s, they began to change their concepts. Obviously, they are leaving from 'helping companies to survive their 'formative year' to 'adding value to companies' (Miller and Bound, 2011).

However, this gap stimulated by a new breed of investments, known as accelerators. In this aspect, the first accelerator Y Combinator was originally established in Silicon Valley in 2005 as a pioneer in entrepreneurial environment, helping start-ups to have continuous and well-prepared background before entering the market. Later on, TechStar with the same outline formed in 2007 in Boulder U.S. aimed to promote local improvement in their region. From here, it becomes relevant to define an acceleration program.

Till now, numerous explanations have been made on this topic but basic one is; at its central, an accelerator is a company or a program that invests and supports a number of start-ups leading to faster growth through financing, education, office space, knowledge, mentorship and additional resource. Additional resource can be anything that takes start-ups to further development and accelerates its growth like extra support and alumni network.

Chapter 2

LITERATURE REVIEW

2.1 Overview

To build up a general understanding of corporate accelerators, this work starts with a survey of the existing literature. Second, it conveys the common features and differences between accelerators, (corporate) venture capitals and incubators. This comparison will allow us to see main differences and similarities from a big picture.

2.1.1 Accelerators

The term accelerator has a broad characterisation inside the start-up community. Broadly speaking, accelerators are an alternative creative method for supporting new companies. Since the phenomenon is still developing, it is problematic to come up with an exact definition already (Nesta, 2011). However, Cohen and Hochberg (2016) inform us that the structure of a business accelerator implies an intensive, usually - 3 to 6 months - program which includes mentorship, educational components, networking and office space in particular, and typically, an entrepreneur who moves into a shared office space with its co-founders for a period of time to work under the guidance of advisors and experts to grow their business rapidly. In exchange for the expert mentoring, exposure to investors or future capital and cash investment that entrepreneurs get from the accelerator, the entrepreneur may give a portion of his or her company's equity to the partners of the program. Finally, most programs end with a grand event called a '*demo day or pitch day*' where ventures pitch to a large audience of qualified investors.

This phenomenon is spreading around the globe whereby the basic philosophies have mainly remained identical. An example of a success story is that Reddit, a newly formed venture which came out of Y Combinator, and was acquired by publishing giant Condé Nast in 2006, reporting €18M value. Afterwards, in 2011, Reddit became a direct subsidiary of it (Weckler, 2016). Likewise, two years later TechStar launched its

acceleration program in US, which encouraged others, predominantly in developed countries, to have similar accelerator programs.

The seed capital provided to start-ups can reach $100K and in return, most accelerators take between four and eight per cent of equity, which is purposely below a controlling stake (Cohen and Hochberg, 2014). Drawing the attention of the investors, however, is not an easy task. Since, accelerators are connecting start-ups with investors there is space for information asymmetry. It is thus particularly important that start-ups follow-up on investors, who are in most cases venture capital funds. Moreover, as accelerators hold some part of equity in start-ups and connects them to the investors, they might be incentivized to refuse sending negative signals about participating start-ups (Kim and Wagman, 2012).

Business accelerators guarantee start-ups' sustainability as businesses, by taking equity. Dempwolf et al. (2014), approaches accelerator programs from different angle; stating that, they are business itself. They also earn more when start-ups in their portfolios become particularly successful, such as in the case of *'unicorns'*. Interestingly, some authors describe accelerators as special types of incubators (Malek et al, 2014) while they are different in terms of characteristics such as duration of program, offered support and cohort base intake. However, accelerator programs are short time periods, commonly three months in opposed to incubators, which usually last between one and five years (Cohen and Hochberg, 2014).

Another characteristic of accelerating programs is that start-ups enter the program in batches or cohorts. The fact that accelerator programs take start-ups in as cohorts leads to strong bonds and a common identity between founders of different start-ups (Cohen and Hochberg, 2014). Moreover, the application process is open to all, and this attracts ventures from a wide, even global, pool. Top accelerator programs accept as few as one percent of applicants (Cohen and Hochberg, 2014). On the other hand, Kim and Wigman (2012) highlighted that increasing the number of start-ups in cohorts may send negative signals on the quality of programs. Despite negative sides of some programs, accelerators in general push forward the transfer of expertise and best practices, in order to promote venture development at an initial stage.

However, companies focus their search for innovation on different industries and targets, in association with their overall business strategies. In this context, they may support start-ups in two ways: first - regardless of their core business area called *broad method*, second – based on their industry focus area, as called *tight method*. Selection of each method is a strategic decision of an organizations, where *broad tool* is generally designed for fast changing business environment such as web-based, mobile apps, social networking, gaming, media and technology, cloud-based technology, especially where the large investment is not required. But *tight focus* adopted areas are not fast changing environments, designed to strengthen the core business of the company, where accelerator is located on the physical proximity to corporate R&D (BSG, 2014). Despite their differentiating tool almost all accelerator offers the same form of support as industry specific mentors, internet services and software packages etc.

Hochberg (2014) reveals that top accelerator programs regularly underline the importance of networks, and advertise themselves with their vast network in order to attract ventures. Network accessibility is not only useful tool during the programme but also after the graduation, as a part of annual alumni meetings. When it comes to the market standpoint of the venture capitalists, Hochberg (2014) emphasised that accelerators act as deal sorter and deal aggregators. At first, accelerators sorts deal during the application period and filter them. Afterwards, elected start-ups are accumulated into a pool where VC investors can easily get in contact with them. Thus, accelerators by-pass the costs for investors arising from searching and sorting start-ups. When investing in small regions, it can be considered a positive externality for the region.

On the Table 2.1 below indicates various definitions for this phenomenon from different scholars and organizations including, Cohen (2013), Hellen et.al (2014), Nesta (2014), Hoffman and Radojevich-Kelley (2014) and finally Dempwolf et.al (2012).

Accelerators defined by	*Cohen (2013)*	*Hellen et al (2014)*	*Nesta (2014)*	*Hoffman&Radojevich-Kelley (2014)*	*Dempwolf et.al (2012)*
Definition	Exact definition	Exact definition	Lack of precise definition	Exact definition	Exact definition
What is an accelerator	Program	Organization	Program	Group of business people	Business model
Objective	Helping ventures	Accelerate ventures	Not defined	Help ventures	Help a start-up to obtain next-stage funding and profit of accelerator
Offers to start-up	Mentorship and education	Mentors and formal education	Mentorship and events	If needed: services, guidance, mentorship, networking, expertise.	Mentorship, education, and networking with investors
Office space	Mentioned, but not necessary	Not defined	Not defined	Mentioned, but not necessary	Mentioned, but not necessary
Period	Fixed-term, usually 3 months	Usually 3 months	Fixed-term, usually 3 to 6 months	Not defined	Fixed-term, less than 12 months
Entry	Based on cohorts	Based on cohorts	Based on cohorts	Based on cohorts	Based on cohorts
Remuneration	Stated, but not obligatory	Not defined	Affirmative	Implied	Affirmative
Demo Day	Yes	Not defined	Not defined	Not defined	Yes
Equity	Stated, but not obligatory	Not defined	Stated, but not obligatory	Implied	Yes
Application procedure	Not defined	Not defined	Open to all and competitive	Competitive	Competitive

Table 2.1: Definitions of accelerators across various sources. (Source: Florian Heinemann, 2015)

Taking into account various explanations in the literature and also in Table 2.1, it emerges that accelerators (Bound, K. and Miller, P., 2011):

- ✓ Have a clear focus on small teams, and not individuals
- ✓ Usually take a non-controlling amount of equity
- ✓ Have fixed-term with durations between 3-6 month
- ✓ Provide pre-seed investments
- ✓ Have a cohort-based intake and process
- ✓ Have an application process, which is open to all, but very competitive

At least, it should be noticed that this definition does not really cover some entities. Discrepancies may occur in between them. The fixed length of the program, the provision of a seed investment and the cohort-based are typical to accelerator programs. So, what an accelerator is NOT? There are different sorts of support programs that are occasionally confused with accelerators- albeit individual accelerators may offer these services or be closely aligned with below entities:

- ✓ *Angel networks* - groups of individual investors who invest their own capital into a small business
- ✓ *Co-working spaces* - offer flexible desk and meeting space including opportunities to meet other ventures or entrepreneurs.
- ✓ *Business competitions* - aims to find talented entrepreneurs.
- ✓ *Hackathons/Start-up weekends* - short and very intensive programs designed to encourage collaborative development and test whether an idea a viable or not
- ✓ *Mentoring schemes* - concentrates on coaching and are intended to share business experiments.
- ✓ *Social venture academies* - programs are offered to accelerate learning for social ventures.

Overall, although the phenomenon is growing, there is no regularly acknowledged meaning of accelerators. Hochberg (2015) explained that some entities may define themselves differently even if the they fit the exact definition of accelerators. For instance, an incubator may portray itself as an accelerator or the other way around. While Y Combinator redefine itself as "Seed funding for Start-ups", RockHealth has redefined itself as "Full Service Start-up Funding". Despite different labelling, these entities both fit in the definitions above, where both of them are accelerators.

2.1.2 Corporate Accelerators

There has been a recent surge of corporate accelerator programs worldwide. The primary corporate accelerators were established in 2010 (Kohler, 2016). Opportunities presented by start-ups are increasing, and so established companies as well wish to take

advantages of these opportunities by forming such programs. By early 2016, the Corporate Accelerator Database listed more than 71 active programs in 25 countries, whereas other sources estimated more than 120 programs (Future Asia Ventures, 2016). Through internet research, I find out that the first corporate accelerators appeared between 2010-2012, and that they were formed by Deutsche Telecom, Microsoft, Citrix, Bayer, and Telefonica. The limited duration of a corporate accelerator raises the founder's attention on the start-up and lead to a fast evaluation of the ideas (Cohen, 2013). Longer links between start-ups and accelerators frequently lead into mutual dependency and prolong the process of product or service development and causing disappointment of a start-up (Kohler, 2016).

Dempwolf et al (2014) stress that corporate accelerators have a different business model than regular accelerators. Following this, they see the value propositions of these two programs as identical, whereas a main difference comes with how they work and generate income. In particular, they argued that corporate accelerators "advance certain goals of parent company, grow and manage portfolios of complementary start-ups to accelerate innovation and gain a competitive advantage" in rapidly changing business world (p. 22).

The idea is that corporate accelerators have different objectives than their non-corporate equivalent. As such, they are bounded by the objectives of the parent association as financed by top management. Also, mutual benefit can be a driven factor for creating corporate accelerator: existing organizations need to create a bond with outside innovations where they can combine their resources and strengths to sustain growth, so as to can defend themselves from digital Darwinism.

Importantly, established corporations own positioned brand status, high valued assets, know-how and access to the data. On the other hand, start-ups can offer ideas aimed at taking risks and growing together rapidly. This is where concept of an accelerator born and acting as a link between outside innovation and the company.

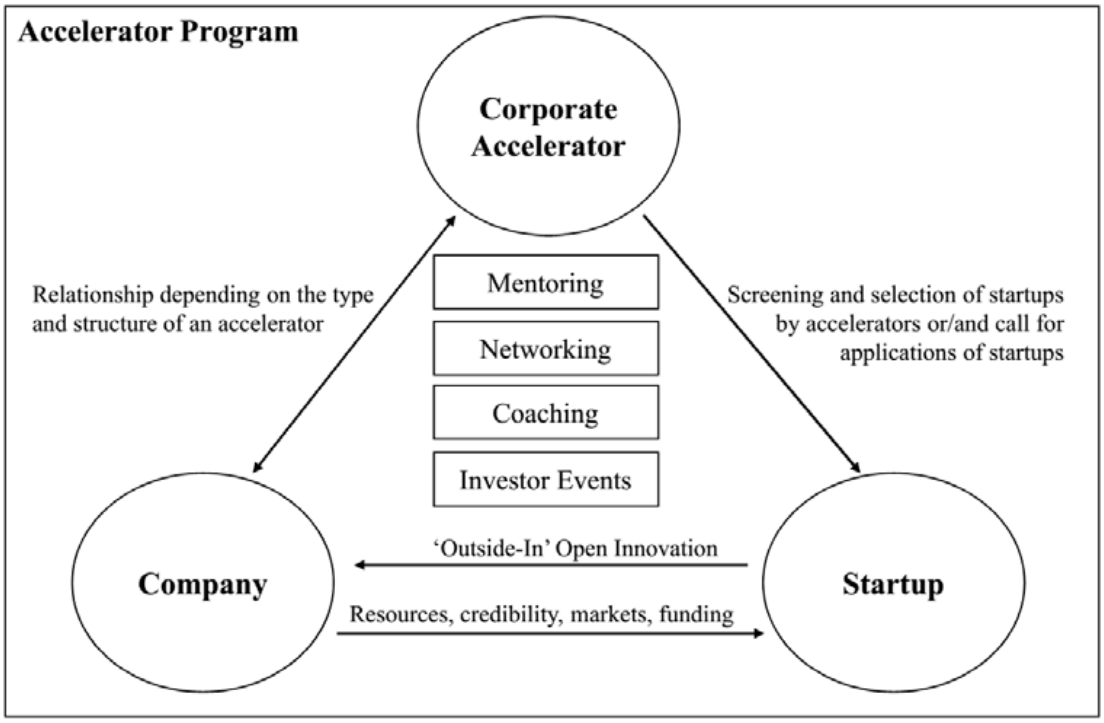


Figure 2.1: Relationship of agents within an accelerator program. *(Source:* Bauer, Stefan et al., 2016).

Hochberg (2015) revealed that corporate accelerators are a certain subtype of accelerators, which are initiated by corporations and are often similar to regular accelerators. Her paper also highlighted that large corporations are aware of new digital technologies and there are many ways for corporations to participate in accelerator activities, such as:

1. Corporations and their executives can join existing private accelerators as mentors or investors
2. 'Powered by' where core elements outsourced from experienced third party such as TechStars (for example- Barclays, Disney)
3. In-house managed accelerators (for example - Telefonica, Microsoft)
4. Multiple partnership or jointly created accelerator
5. In-house accelerators which only focus on internal projects

Overall, it can be said that corporate accelerators are time-limited programs with a standard duration of around three to six months that conduct a very careful admission of a cohort of start-ups on a specific date.

2.1.3 Corporate Venture Capital

According to the Financial Times lexicon, corporate venture capital refers to a non-financial firm that invest in target companies such as start-ups. These investments often follow not only purely financial interests, but aim at strategic partnership in developing new or complementary technologies or business fields besides those in which the company is already active. However, objectives of corporate venture capital are often described as 'window on new technology' to have early innovations in existing business industry. Indeed, goals of target companies involve additional financing in order to strengthening the R&D, marketing or distribution channels.

Here, the investments are typically made in minority stakes and thus, it shouldn't be confused with mergers or acquisitions. According to Chesbrough (2002), companies with corporate venturing activities may have strategic or financial objectives. Focusing on financial objectives provides desirable financial returns. Likewise, Hochberg (2015) stated, by investing start-ups, help parent company to enlarge their complementary products.

Corporate venture activity in the late 1960s were related to booms in VC investments and venture-backed IPOs, and continued until 1990s. Prior to the internet expansion in the late 1990s corporate investments expanded quickly. It dropped however after the economic crash around 2000: "quarterly corporate venture-capital investments in start-ups rose from $468 million at the end of 1998 to $6.2 billion at the beginning of 2000 and then tumbled to $848 million in the third quarter of 2001" (Chesbrough, 2002). However, now we are experiencing a corporate-venturing surge despite lacklustre days for conventional venture funding. Overall, comparing corporate accelerators and corporate venture capital with each other, corporate accelerators generally target earlier start-ups, while corporate venture capital focus on small existing companies with high growth potential.

2.1.4 Incubators

The incubation concept plays a fundamental role for studying the accelerator phenomenon. Its occurrence dates back to the 1960s in U.S. Corporate incubators and corporate accelerators share common features and accept early stage start-ups. Both phenomenon have promising profit-making feasibility, equally offer an environment that is tailored for start-ups need, but distinguishing point comes with duration of support and concept. As the name suggests, incubators are a place to incubate your idea, develop your business and prepare your start-up for further progression. Incubators typically work with young start-ups for an indefinite period of time and start-ups work alongside each other in a shared, collaborative environment. However, the model itself was in recession state until 1980s and was not much approved by business environment. Afterwards, it has evolved a lot and until 2006 there were approximately seven thousand incubators worldwide (Lewis et al, 2011).

Grimaldi and Gandi (2005) divide incubators into four main categories: Business Innovation Centres (BICs), University Business Incubators (UBIs), Independent Private Incubators (IPIs), and Corporate Private Incubators (CPIs). Afterwards, these four types are then grouped into two models (Model 1and Model 2) based on services offered by them, as indicated in *Figure 2.2.*

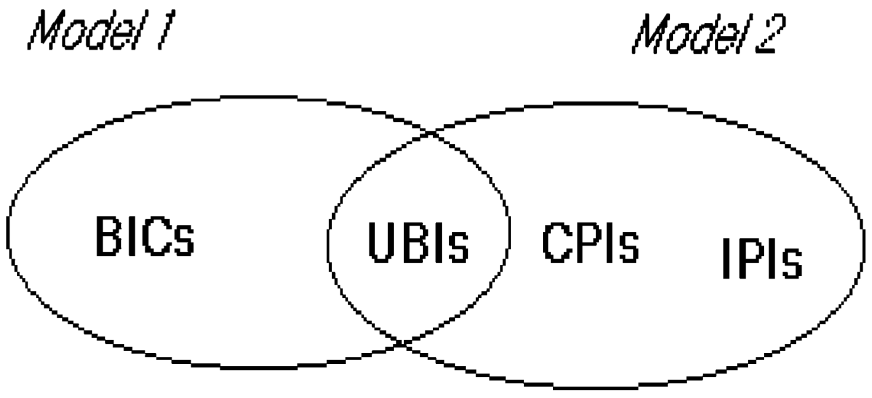


Figure 2.2: The two incubating models. (Source: Grimaldi and Gandi, 2005)

The first model (BICs and UBIs) is focused on providing elementary tangible services with necessary support such as office space, in order to minimize the cost for start-

ups. The second model (UBIs, CPIs and IPIs), is described as delivering intangible resources to the start-up on a short time basis, aiming to accelerate the development of the start-up.

The National Business Incubation Association (NBIA) describes accelerator services as intended to rapidly move start-ups from one phase into the next one, by investing in them, while incubator services aim to move entrepreneurs toward self-sustainment into established businesses, and typically not invests in start-ups. The typical characteristics of incubators are clearly defined at Table 2.2 and some are as follows:

- ✓ They provide office space
- ✓ They target local start-ups at early stages
- ✓ They do not provide investments
- ✓ Longer duration of support compared to accelerators

Equally, Hochberg (2015) stated that "incubators are primarily real estate ventures, offering start-up co-working space at reduced rent and do not provide stipends, and educational and mentorship offerings, if provided, are ad hoc at best" (p. 7). The theory on incubators and accelerators suggests that accelerators represent a development of the incubation concept.

The Table 2.2 clearly compare and contrasts each phenomenon and it can be observed that corporate venture capital, corporate accelerators and incubators have many stagnated components in common such as their ownership, target audience, and their objectives, even though they were emerged in different times. A main further difference among them is the duration of the support considering monetary and educational base and equity requirements.

	Corporate ventures	*Corporate accelerators*	*Incubators*
Owned by	Established corporations	Established corporations	Economic development organizations, government entities and academic institutions
Objectives	Chasing knowledge, financial and strategic acquisition	Gaining competitive advantage	Helping start-ups with a range of business support resources, organized by incubators
Selection Process	Competitive selection of firms from nationally or globally	Competitive selection of firms, nationally or globally	Competitive selection, mostly from the local community.
Start-up stage	Small existing companies with high growth potential	Early stage, but start-ups technically ready to "boom"	Early stage, without existing business
Time frame	Not clearly indicated but 5 to 7 years in general	Typically 3 to 6 months	Around 12-36 months
Investment	At average $24M	Up to $50k and $100k	Up to 25% of equity
Taking equity	Yes, minor stake	Typically, non-controlling amount	No
What start-ups gain?	Financial support Mentorship Close ties with corporate unit	Office space and hardware Skilled mentorship Potential funding	Office space Business training Professional network
What company earns?	Equity share Potential profit for company Extension of portfolio	Benefits to follow new trends Clear focus products or services "Firs-Pick" potential in case of promising start-up	Broader growth& investment chance Economic development and outsourced R&D
Occurrence	1960s	2010s	1960s

Table 2.2: Comparison of corporate venture capital, corporate accelerators and incubators. (Source: Lenet Scott, 2017)

Reportedly, the start-up growth increased 61% since 2014 and in parallel to this different kind of support programs rose to surface. So, it is overwhelmingly important for founders to know where to jump in. Depending on needs, I graphically illustrated in *Figure 2.4* what is best path for founders, by taking into account corporate venture, incubators and accelerators program. In this context, two new concepts should be defined as written in *Figure 2.4.* Firstly, as the name suggests, *crowdfunding* takes advantage of the aggregated power of the group. It has two kinds: *reward-base* where monetary contributions are exchanged for products or services and *equity-base* in which non-official investors can invest in exchange of equity in early stage (Clay Hebert, 2015). Secondly, *co-working space* offer non-monetary supports, but some may charge a low amount per month or quarterly. The 2017 Global co-working survey predicts that there will be an estimated 13,800 active co-working spaces worldwide and many co-working spaces offers various benefits such as event space, networking parties and pitch nights (Coworkingeurope, 2017).

Furthermore, S&P500 revealed that the lifespan of the analysed companies was reduced from 61 years in 1958 to 18 years in 2017 (Foster, 2012). One S&P 500 firm is replaced every two weeks and the trend is even accelerating (Foster, 2012), thus showing that their capabilities to innovate and stay ahead of market trends are failing. Not surprisingly, firm failure comes with not setting aside sufficient resources for social marketing and online platforms, which are essential tools for acquiring and holding customers nowadays. Also, they failed to embrace and put to use the new advanced technologies. Reportedly, 63% of firms neglect to take advantage of big data, due to the fact that the technological innovation was taking place outside their closed boundaries and internal R&D departments.

Scholars particularly underline innovation as an important tool, but not just for entrepreneurship. Individuals are also innovators in their daily routine, in order to adapt own needs and create their own solutions. In this sense, individuals' companies face the same challenges. The innovation inside firms (inside to outside innovation process vs. outside to inside process) helps to produce new products and service from ones that already exists (incremental vs. disruptive). And, being innovative has helped firms become successful in all their endeavours. Other factor that raises the importance of innovation in

entrepreneurship is competition. It stimulates any industrialist to come up with something much better than their competition at a lower price, and still be cost-effective and qualitative.

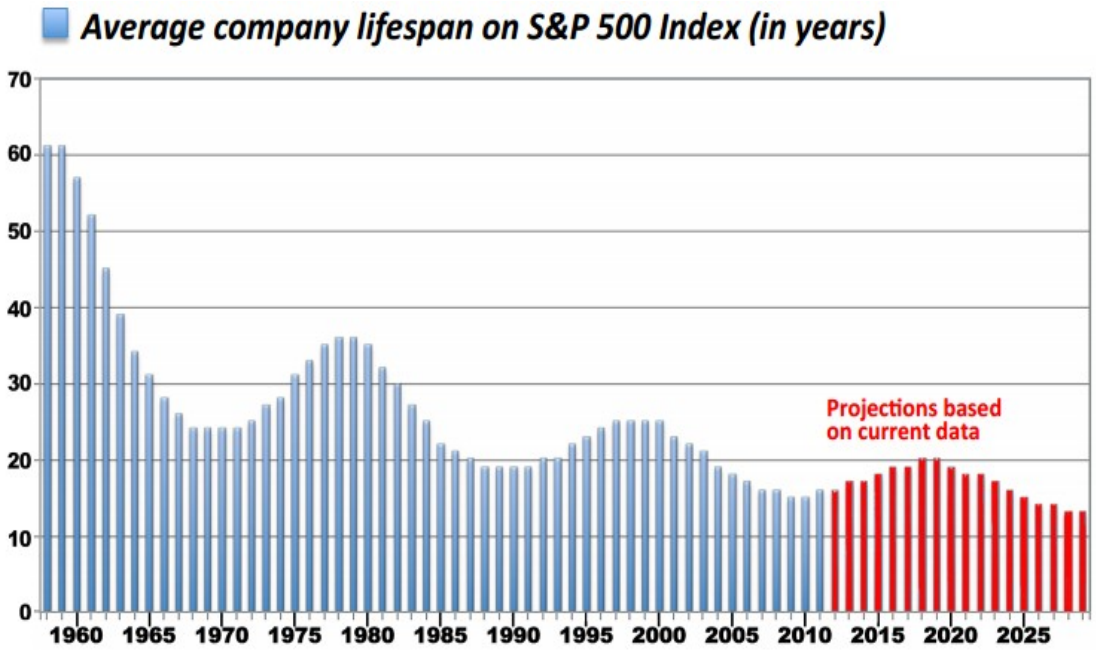


Figure 2.3: Lifespan of the S&P 500 in years. *(Source: R.N. Foster, 2012)*

Therefore, innovation becomes crucial at this point in order to adapt companies in a fast changing business ecosystem. Large market capitalized corporations launch venture units targeting to access outside advancements. Hence, the best start-ups from an incubator or accelerator will often receive an investment by the supporting organization's venture capital unit, so as to guarantee further advancements for company, that will keep pace with external environment. The importance of innovation in entrepreneurship is another key value for the longevity of a business.

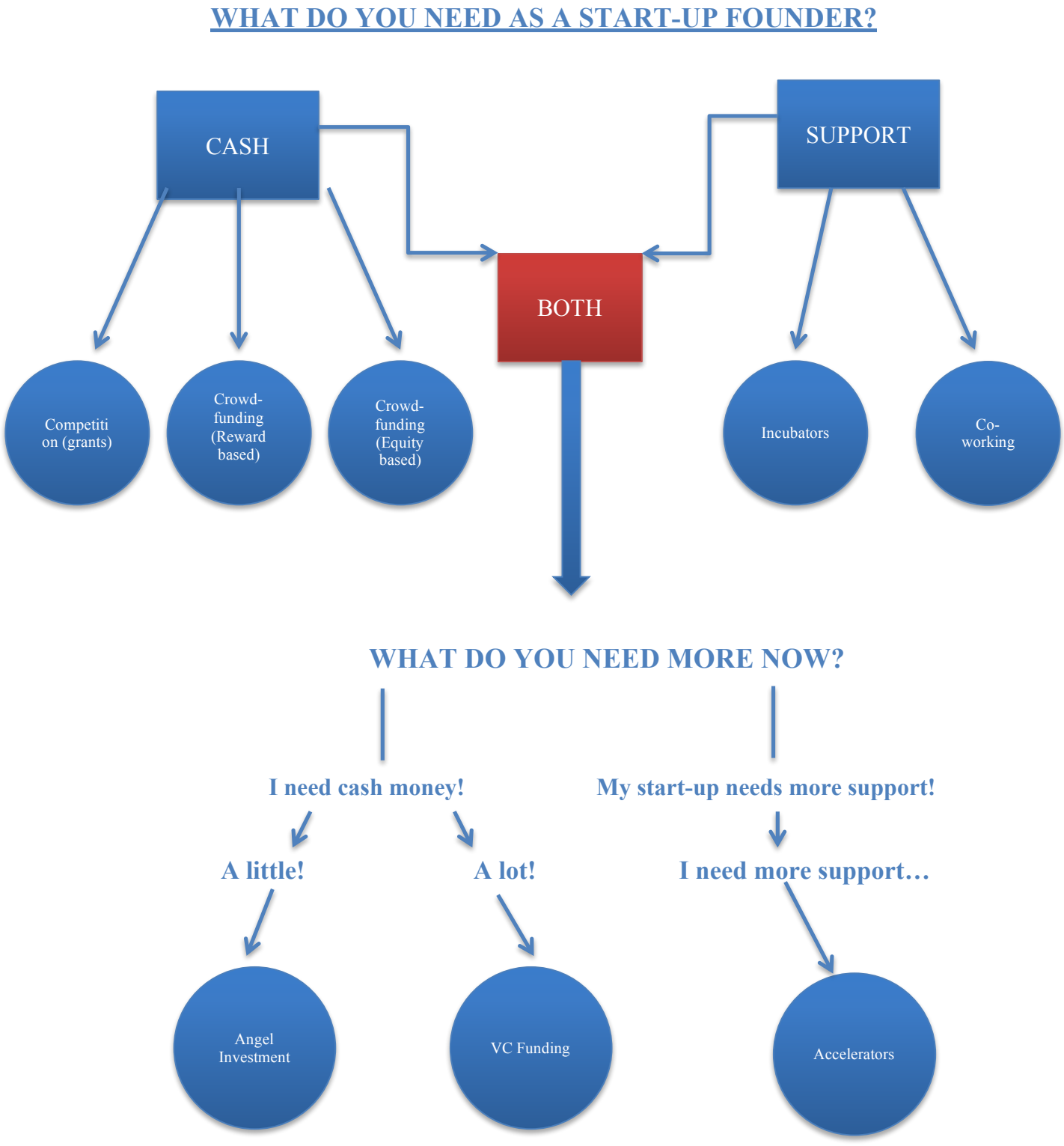


Figure 2.4*:* A probable follow path of a start-up based on their needs.

2.2 Evolution of Accelerators

This section is dedicated to enlarging the previous literature within the frame of the accelerator phenomenon. It presents expected trends and global projections. Also, I focus on different industry segment of corporate ventures in order to generate some speculations based on data.

2.2.1 Expected development and tendencies

Accelerator programs in general lack verified data about the number of corporate accelerator programs (Dempwolf et al., 2014). When it comes to verified data for accelerator programs, the website Jed Christiansen's Seed-DB, offers information dragged from Crunchbase. If a company hasn't updated their information on Crunchbase, it won't show on Seed-DB. Corporate and non-corporate accelerators have seen rapid growth over the last years, with conservative estimates hovering growth rates around 300+.

Christiansen's Seed-DB targeted to put data in a more easily digestible format. Based on this website, the total number of non-corporate accelerators is indicated as: 188 programs worldwide, 6579 companies that were accelerated, 904 exits for $5,541,273,600 and $26,573,161,396 funding as of March 2017. However, information is in restricted quality. Especially when you scroll down through the end around 40 per cent of all projects have no data on the date of foundation which puts some limitations on research.

Another analysis revealed by Global Accelerators Report (2015) explains that accelerator programs spread rapidly between 2005-2012, based on years they have been established. Thereafter, the growth slowed down significantly. Europe leads with the most accelerator programs as opposed to a global trend of slower accelerator growth as described in *Figure 2.5.* Another region, Latin America is growing fast whereby a mix of private and public capital is driving a surge in start-ups and accelerators. However, based on information in *Figure 2.5*, there is a first sign that the development of accelerators has lost its pace.

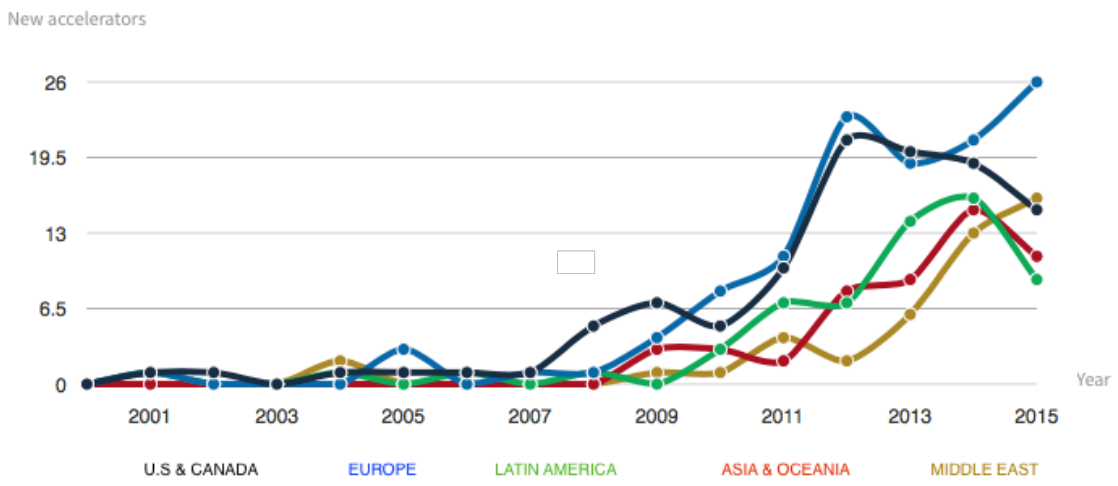


***Figure 2.5**:* Evolution of accelerator industry. *(Source: Global Accelerators Report, 2015)*

Moreover, from *Figure 2.5* another fact becomes noticeable: the accelerator phenomenon becomes obsolete and the reason lies behind the increased number of corporate accelerators. Both offer the almost the same services, but the latter one offers more industry experience and may not ask for equity. That is the reason why accelerators become more industry focused and tried to differentiate themselves.

Launching an accelerator is a vital choice that permits huge corporates to remain relevant and focused in a fast-evolving economy. With this in mind, the launch of corporate accelerator programs worldwide has peaked also. Thus, the growing number of start-ups pushed companies to design tailored open innovation programs in order to engage with future bright start-ups and offer privileges aiming at attracting them. According to Future Asia Ventures (2016), the total number of corporate accelerators was 116 and companies are keep launching more accelerators in EMEA and Asia Pacific locations. More specifically, UK leads with 19 accelerators and Germany is second with 12. Also, Hong Kong, Singapore and Bangalore have 16 out of the 23 accelerators in Asia.

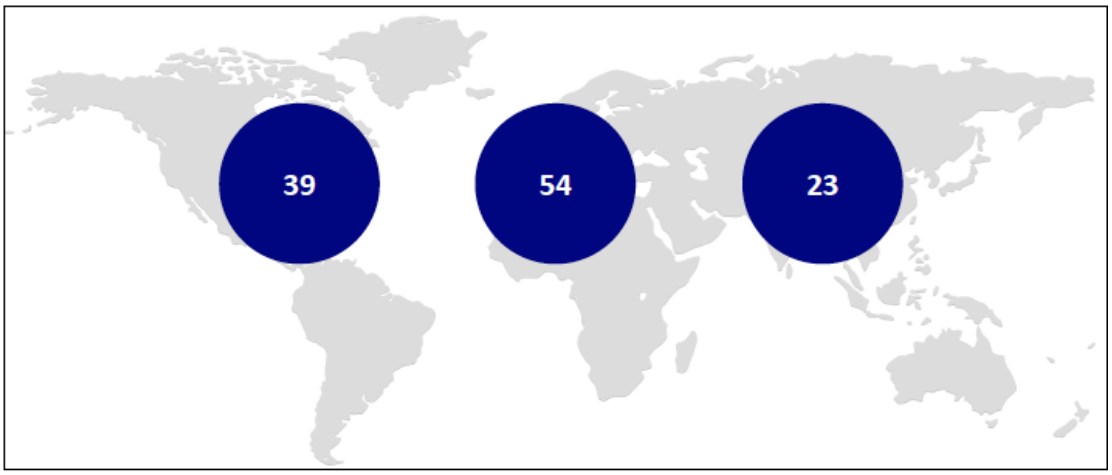


Figure 2.6*:* Propagation of corporate accelerators around world. *(Source:* Future Asia Ventures, 2016*)*

In light of this growing phenomenon, there are a few difficulties and tendencies that begin to emerge. The principal challenge refers to the reduction of the accelerator programs quality as the number of programs are growing. The overall quality of start-ups applying to accelerator programs is still not high enough and this problem is mostly severe in developing start-up ecosystems. To face this challenge a proper screening of start-ups should be done. In this sense, "pre-acceleration programs have appeared and start to team up and train a large number of tech entrepreneurs" (NUMA, 2014). For pre-accelerators, it is vital to recognize the significance of their projects particularly on groups with low entrepreneurial experience and by doing so it helps entrepreneurs take their first step.

Secondly, another tendency is *verticalization*. The growing number of programs increases the competitiveness. Thus, in order to avoid it, accelerators start to differentiate themselves from the others by developing programs specialized in one specific sector of activity, a '*vertical*', by owning tight focus rather that broa*d.* These programs have several advantages, the main being the ability to provide very specialized and expert mentorship and training. In fact, vertical accelerators have already started to spread around the world especially in Europe and the U.S. (NUMA, 2014).

A third trend comes with a relationship between accelerators and corporations. There are many win-win circumstances intended for both sides by sharing information, innovative ideas and assets in some cases.

Organizations launch these programs in order to have disruptive business ideas, or to change market trends as a part of strategy (Wauters, 2013). However, a corporation is not alone in the described trends. Cooperating and making an advantageous interaction with start-up ecosystem requires fitting individuals for the accelerators who have a comprehension for the organizational structures as well necessities of a start-up.

2.2.2 Accelerators worldwide

Last decade, the first accelerator model was developed and expanded in U.S. by Y Combinator. Now the industry claims a global presence of around 300 accelerators containing both corporate and non-corporate. Despite lack of data for clear indication of the programs, Global Accelerators Report (2015) give some logical insights about spread of programs on a world map as indicated in *Figure 2.6.*

Since the establishment of the first accelerator in 2005, the industry has developed remarkably and gave a great deal of entrepreneur access to know-how, resources, market and capital, that helped turn their ideas into reality. While the US, Canada and Europe still accelerator leaders, Latin America, Asia, Oceania, and the Middle East are increasingly making up a larger share of the total number of accelerator programs and number of start-ups in their portfolios.

Another interesting fact refers to the Middle East region. It is the only region with a higher share of non-profit accelerators than for-profit accelerators where they tend to focus on industries with a specific public benefit, such as Health Tech and Edtech and do usually not asks for equity.

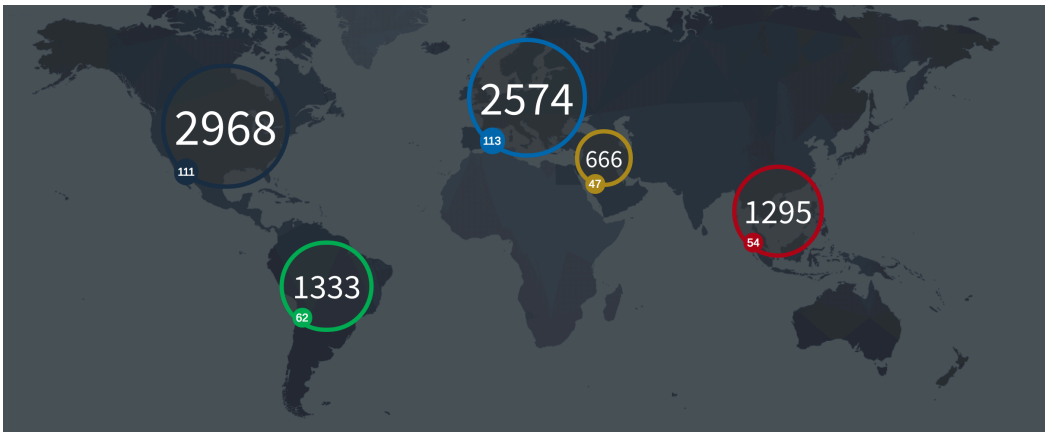


Figure 2.7*:* Number of accelerators around globe. *(Source: Global Accelerators Report, 2015)*

Like indicated in the *Figure 2.5,* the spread of programs is not only exclusive to the U.S. and accelerators are almost everywhere. According to Global Accelerator Report 2015, U.S. and Canada are together the industry leaders with a total of 111 accelerators investing $90M in approximately 3000 start-ups. They are closely followed by Europe with a total of 113 accelerators financing $41M in 2574 start-ups. The accelerator industry is rapidly expanding to new regions such as Latin America, fuelled by a mix of private and public capital. According to the report, 1333 start-ups were backed by 62 accelerator programs here. They are closely followed by Asia and Middle East where 1295 and 666 start-ups were financed respectively.

The accelerators scene is developing and moving across worldwide and western organizations are progressively launching Asia-based accelerator programs in Shanghai, Hong Kong, Singapore, Bangalore, Sydney, Melbourne and Kuala Lumpur, where corporations have chosen to plant their innovation programs. For instance, TechStar has its programs in 120 countries and in six continents, like: TechStar Berlin, TechStar New York and TechStar Cape-Town. But the story is different for corporate accelerators, because location is rather differently placed for them compared to their traditional accelerator. Thereby, the location of the program is not defined by the program itself but by the area of the supporting firm. In contrast, some corporate accelerators started virtual programs, referring to fund and work with start-ups wherever they are located instead of relocating to another city.

2.2.3 The business segment of supporting firms

Since non-corporate accelerators do not belong to any specific industrial sector, they generally support various kind of industries starting from service sector to manufacturing sector. They are in general self-sustained organizations and have no sponsoring institute. But the story is different for corporate accelerators. Corporates are belonging to a specific business sector. Relative assumptions can be made in order to define industrial sectors of corporate accelerators, but lack of required data put limitations to define in which sectors they generally operate. In this sense, due to objective similarities of corporate accelerators with corporate venture capitals, we can extract relative data about the sector with most venture capital invested and reach presumed traces of investments of corporate accelerators.

Furthermore, I listed 62 Most Active Corporate Venture Capital Funds of 2015 and 2016 based on recent report by CB Insights published in March 23, 2016 and March 17, 2016. Afterwards, I matched these 62 funds separately with their particular parent organization and industry sector as indicated on *Table-A.1 and Table-A.2* (see Appendix-A). Grouping this information by industry (see *Figure 2.9*) reveals that Fintech, manufacturing, information sector including telecom, wireless and professional, scientific and technical services firms were actively involved in corporate venture capital. These results are partly supported by Future Asian Ventures (2016) data, as indicated in *Figure 2.8.*

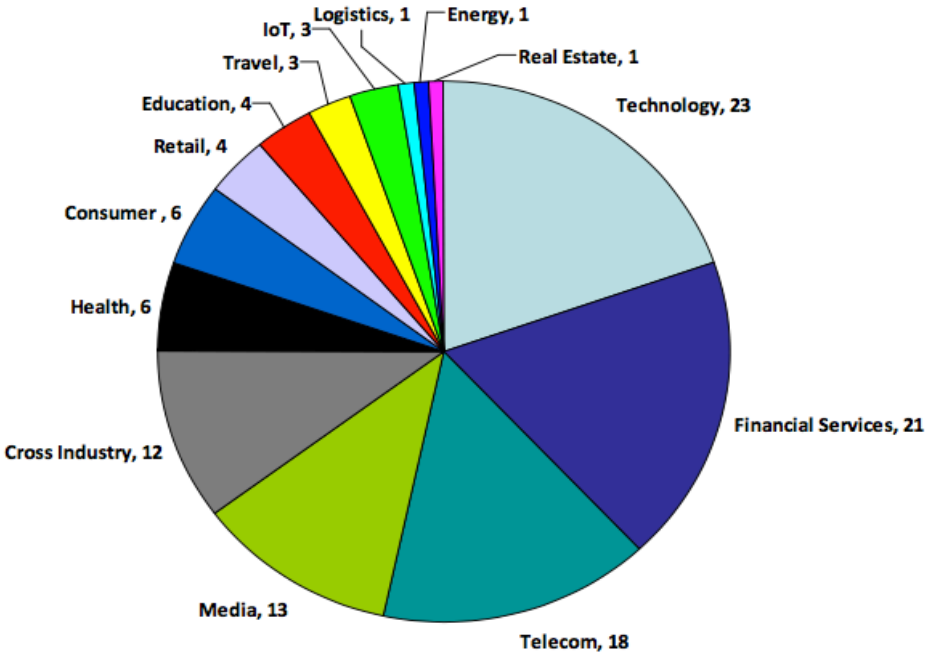


Figure 2.8: Number of firms per industry which have acceleration program. *(Source: Future Asian Venture, 2016)*

On the other hand, in 2016, no venture capital activity was found in the real estate sector in *'the most active 62 CVCs'* list. Data also discloses venture capital followed a negative trend in 2016 in most sectors. The reasons for this can be a recession of world economy. Overall, Figure 2.8 helps us to conclude that corporate accelerators predominantly focus on finance, insurance, and manufacturing, predominantly in pharmaceuticals-medicine and information technologies. By this, I have answered the research question regarding what kinds of companies launch corporate accelerators after tracing investments.

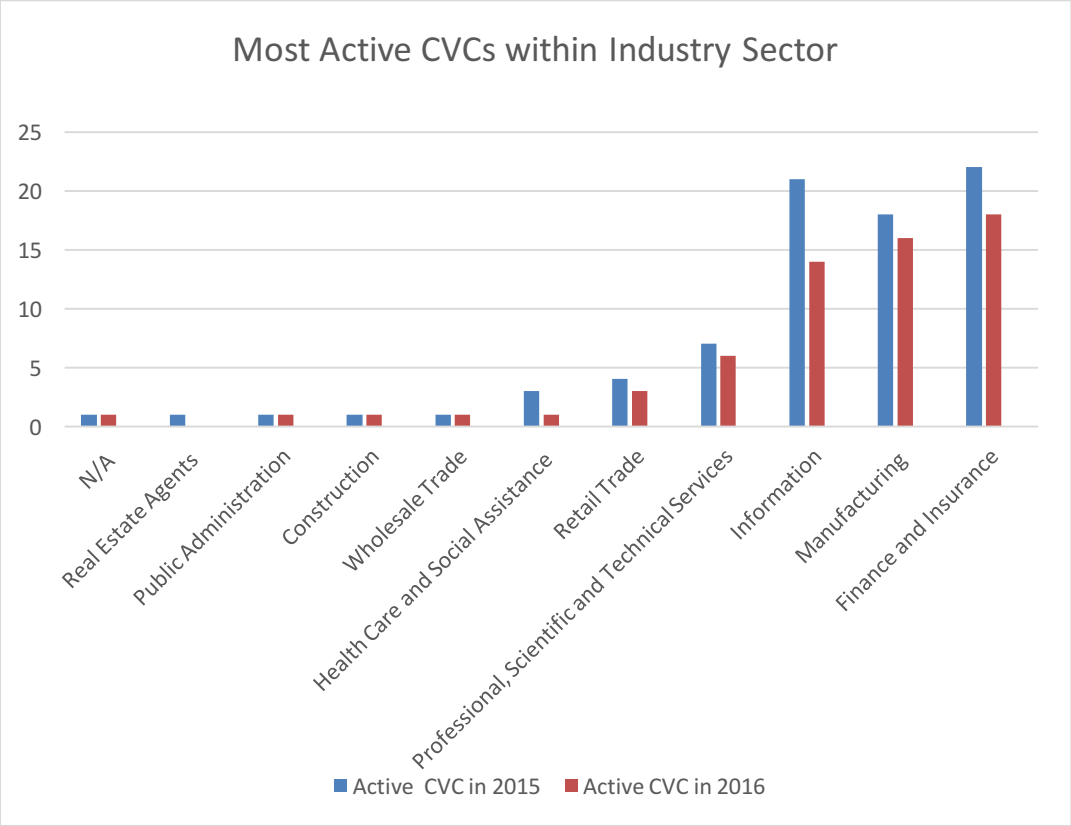


Figure 2.9: The most active industrial sectors based on CB Insight (2016, 2017) for the list of most active CVCs funds.

Similarly, global corporate venture capital activity was increasing, but started to slow down after the 3rd quarter of 2014. In 2015 corporate VC investors participated in $28.4B of funding across 1301 deals, reaching all-time highs, but started to fall through the end of 2015 with deal activity dropping to its lowest level, before fluctuating around 300 deals in 2016s first two quarters.

Chapter 3

RESEARCH METHODS

While the reviewed theory points out to interesting aspects of the accelerators' area, a full answer to the main aspects of the thesis could not be provided. This part is about the research methods used in this thesis, their motivation, and the approval of the gathered information.

3.1 Research Strategy

After making an underlying evaluation of the accessible theory and information about corporate accelerators from various sources, I concluded the thesis had to be of exploratory nature. An exploratory thesis would aim to cover fundamental knowledge, in order to have better comprehension of topic. Since the corporate accelerator phenomenon is still developing, it has not yet profited by wide research. The newness of the topic is also due to the short existence of accelerator companies, and the limited number of graduates from accelerator programs. Together, this leads to limited quantitative data available. The knowledge about corporate accelerators is restricted, but it was possible to find some information. In this sense, a primary way of approaching the subject is the inclusion of wide-ranging list of accelerator programs, and then enhance the data with information retrieved from the active programs. All this refers to a qualitative approach. Finally, the main concentration of the thesis was to examine ideas and connections regarding available data and extract the relevant information, rather than focusing on quantitative elements by analysing S&P500 and STOXX Euro 600 firms.

3.2 Designing the Database

Most of the early information came from literature outlined by established accelerators, academic papers and articles revealed by the consulting firms including PwC, Ernst & Young and Deloitte, with a specific country focus. One of the primary obstacles in investigating accelerators refers to the fact that they are usually lean organization with

little personnel, thus minimal information sorted out. Consequently, these short-term projects (3 to 6 month programs) are not strictly followed by business or governmental information bodies. While a portion of them urge their start-ups to present some data to open database such Crunchbase, some do not follow the same strategy and avoid to reveal funding data, aiming not to attract new entrants (or not to uncover investor enthusiasm to prospective competitors). Overall, available open dataset may not be complete and it may turn difficult to determine whether the available data is illustrative or reflects the truth.

In order to design the database, after analysing Global Accelerators Report (2015), I focused on two main geographical areas: U.S and Europe. I observed that the majority of corporate accelerators programs and investment funding were accumulated in these two regions. To understand the phenomenon in these two regions, I focused on S&P500, an index of largely capitalized, public U.S. companies covering about 80% of the American equity market by capitalization; and STOXX Europe 600- an index covering approximately 90% of the free-float (public float) market capitalization of the European stock market including Eurozone area. The reason behind choosing these two samples as the centre of thesis is the fact that they both include broader market exposure. As such, STOXX Europe 600 index is often quoted as the European equivalent of the U.S. engaged S&P 500 index. In a next step, I got all the constituents of the S&P500 and STOXX Europe 600, making in total 1105 companies (505 companies for S&P500 and 600 companies for STOXX Euro 600). For these 1105 companies, I inquired manually from various sources, predominantly company websites, from the American online publisher of technology industry news TechCrunch and F6S which is the home for entrepreneurs and start-up programs globally. At the end, I found 40 corporate start-up accelerations program and excluded those with double programs in different locations and joint-partnership programs. Since it is important to understand whether or not a corporate is involved in an acceleration ideology, I have eliminated double programs. Such an example would be Target Corporation and Intel for S&P 500 and Allianz Nice Riviera, Deutsche Telekom 'hub:raum' for STOXX Euro 600. I also found corporate acceleration programs which were closed or currently not active like Volkswagens ERL accelerator in collaboration with Plug and Play and Nike accelerator. Citi Mobile Accelerator is currently joint program under different name called 'tech for integrity challenge- T4I' with its allies. Deutsche Telekom which changed its old 8-day

accelerator program in Krakow to an incubator program partnering with Nokia and Innogy called 'hub:raum wrap'. Also, their application for 8-day program over F6S is not currently active and when clicking on their Twitter web page account, it automatically redirects to the new program webpage, which gives a robust clue that these programs are not currently active.

Interestingly, no corporate accelerators were built by automobile industry within the given sample. BMW Group, for instance, does not own this kind of program. What they offer is BMW Start-up Garage called Corporate Venture Client of the BMW Group. As a Venture Client, BMW becomes a client of a start-up at an early stage when its product, service or technology is not yet mature. BMW also has a Corporate Venture Capital fund called "BMW i Ventures". Volkswagen AG, on the other hand, launched ERL technology accelerator in 2012 with Plug and Play, in order to accelerate technology for automobile industry, but it is currently not active. Furthermore, PSA Group introduced "Batch Mobility Program" in 2014 in partnership with Euro Technologies targeting entrepreneurs with project related with mobility solutions which is a unique type of program designed by PSA Group and the situation remains identical for the rest of other automobile companies within the sample. Based on the retrieved information, the majority of companies within the sample have a venture capital body or are interested in start-ups at later stages, in order to add immediate value to their business chain. Those companies are predominantly manufacturing companies where it is difficult to grow from zero and where it is better to have venture capital (BCG, 2014). Data also revealed Information technology and FinTech companies are more opened towards corporate acceleration and collaborating with start-ups around the globe.

It is worthy to note that, the inquiry has been made only once in February, 2017 and rough modifications may occur for different companies. All data were verified through a database of corporate accelerators, namely '*corporate-accelerators.net*', whereas this database did not offer updated information. While Deutsche Telekom's- 'hub:raum' Krakow accelerator was eliminated due to the concept change, SAP's- Start-up Focus accelerator and Allianz's- Allianz Digital Accelerator were added. In addition, Facebook also launched similar program in partnership with F-station in Paris, but they call themselves neither an accelerator nor an incubator.

The reason why the search was made only once is because I did not come a proper method such as web oriented software programs based on information retrieval. Since no method is free of limitations, also this technique has some weaknesses. Indeed, it is a time-consuming method and demands repetitiveness of the search in order to minimize the number of absent programs. Also, with a proper software, more robust outcomes can be achieved by eliminating deviations. I will discuss elected 40 programs in more detail and indicate their business sector and how these 2 sample (S&P and STOXX Euro 600) manifest itself in terms of similarities and discrepancies. All data can be found in Appendix-A at Table-A.3.

Chapter 4

CORPORATE ACCELERATORS: THE BIG PICTURE

This chapter looks at corporate accelerators from a large-scale perspective and is associated with the exploratory data analysis that was explained in Chapter-3. In particular, this section offers insights about objectives and criteria of corporate accelerators and their four main distinct types. Also, the information collected from S&P500 and STOXX Euro 600 accelerator companies is leveraged to check how all these 40 programs work based on definition of phenomenon.

4.1. Definition of Corporate Accelerators

Several outside and inside conditions triggered the expansion and the growth of corporate accelerators. There is no generally acknowledged definition of accelerators. However, there are a few criteria that are similar in all corporate accelerator programs: the fixed and short duration of the program, which provides cohorts of start-ups mentorship, networking, office space and educational factors that aim at rapidly growing the business, the final <<demo-day>> sometimes called grand day, which, in most cases, provides seed capital in exchange for a small amount of equity (Cohen and Hochberg, 2014). The fact that the definition requires accelerators to support start-ups in many ways, but to at least provide mentorship and networks to potential investors, plays an essential role. Certainly, all 40 programs within the sample, also the virtual programs, stated that they provide mentorship. Other hand, some virtual programs do not offer office space, for instance, AT&T and Wells Fargo. Beside this, some accelerators offered further help including credits for its products, travel expenses compensation, getting visa for international start-ups, including legal consultancy and human resources. Google, IBM and Pearson can be an example of further assistance.

While many programs within the sample highlighted the requirements of joining the program as: businesses need to be at an early-stage, meaning that it has neither existed for more than few years nor experienced any significant revenue yet, others accept them at

a mid-stage as Microsoft and MasterCard. Almost all programs explained they aim at: strengthening the entrepreneurial culture both within and outside the company in order to explore interesting technologies and find potential collaboration opportunities, promoting and connecting talents and entrepreneurs to realise innovative solutions.

4.1.1 Fixed length of time

The accelerator programs last for a fixed and a short amount of time (3-6 months) in general. It is because short term reduces interdependency between company and start-up, and it also puts start-ups under high-pressure, which makes the program more effective and force entrepreneurs to get into the market faster than expected. The duration of program varying between 2.5 to 6 months within sample. While Telecom Italia program provides additional 9 months mentorship and co-working, Mondelez offer similar rationale and its support is divided into two sections each consisting of three-month.

4.1.2 Cohorts

A fixed duration of the accelerator program allows all admitted start-ups to graduate at the same time during the grand day. This process automatically implies creation of cohorts. In general, program managers adopting this strategy in order to reduce the total cost of the program and effectively use resources, but also to urge new businesses to help each other (Miller and Bound, 2011). Several companies stated on their websites that cohort base intake allows them to be in touch with more start-ups, allowing them to diversify their venture portfolios. Within the sample studied here, only Allianz Digital Accelerator program did not indicate its intake policy, while the rest is accepting start-ups on a cohort base.

4.1.3 Demo day

As the pre-defined fixed time comes to the end, offers start-ups a chance to present their product or services to potential investors. In order to draw the attention of more investors, accelerators publish the date of the demo day on their website in advance. Other internet channels are used to convey an information signal such as; F6S, Facebook and

other social media. This occasion is viewed as a networking opportunity, where the new venture division of companies, angel investors and early-stage venture capital firms are invited to observe and invest in start-ups. Demo days are getting noticeably famous. While 85% of the sample arranges demo days, 15% did not indicated anything about it.

However, Telecom Italia's #Wcap Accelerator is somehow different, in that the program last 3 months, with an extra 9 months of co-working and mentorship effectively provided. In addition to this, additional support is also provided to start-ups in *'Growth Phase'* of #Wcap accelerator, based on each start-up's current situation and needs. Afterwards, all prosperous start-ups automatically enter the Albo Veloce and benefit from the Innovation Basket. Here, there is a dedicated budget available to TIM Business Units for the purchase of solutions developed by TIM #WCAP start-ups. The Albo Veloce provides all winning start-ups with a certification that fast tracks the procedure to become TIM suppliers. This can be considered real novelties introduced by Telecom Italia.

4.1.4 Funding

The amount of funding provided differs between accelerators: some provide up to $500K like Wells Fargo, while others do not provide any funding. The amount of funding provided mostly depends on equally the amount of equity taken. The majority of accelerator organizations express that they have no interest in controlling the early nascent firm (Hoffman and Radojevich Kelley, 2012). The analysis revealed that 'powered by' accelerators like Techstar, Nestolma and Plug & Play directly take equity between 4%-10%, and provide funding as a part of agreement. What they generally do is investing up to $25.000 in exchange for equity and offering up to $100.000 as a convertible note, where convertible notes are structured as loans with the intention of converting to equity. Axel Springer, Barclays, Interpublic Group of Companies, Metro AG, Nordea Bank and Qualcomm outsourced this services to 'powered by' accelerator programs. Airbus stated that entry into equity could be addressed only through Airbus Group Ventures, but currently they do not have any equity requirement. Almost 20% of programs within sample do not provide funding as indicated at Appendix-A, Table-A.3.

4.1.5 Equity

Similar to stipend provider accelerator programs predominantly takes equity. All *'powered by'* accelerators take equity between 4%-10%, hence they are businesses themselves, as explained by Dempwolf in Chapter-2. Taking equity might act as an incentive for organization to support the start-up after the program is over. Almost half of the programs within the sample do not take equity. Furthermore, taking too much equity might demoralise founders of start-ups to scale their business, as well as future investors to invest in them. However, Anheuser Busch Inbev SA, Google, ImmobilienScout24, Merck Group, Mondelez, Microsoft and Telenet Group Holding NV are the only one within the sample who invests but do not take equity. Unilever and E. ON also invests, but the amount of taken equity is not indicated.

4.1.6 Application Process

As said in the definition explained in Chapter-2, the application process is quite competitive and open to all. Companies within the sample did not disclose the acceptance rate in terms of percentage, but they encouraged all start-ups with a message on their website as: 'The next is you-Apply!'. Hence, some companies proposed a list of questions as a selection criteria like:

- Does this start-up business coincide with our main business area?
- Are we capable of taking this start-up project to further steps and develop a technology and bring expected innovation?
- Is this venture capable of making niche markets or leveraging our business needs?
- How enthusiastic are the founders about developing their business; are they ready to scale their start-ups?
- How effectively can this start-up create an economic benefit for us?

Hochberg (2015) revealed that corporate accelerators are a subtype of accelerators because they both share same criteria. Broad information about the criteria of corporate accelerator programs can stimulate start-ups before application. In other words, it could work as a benchmark for entrepreneurs before the application process. But from a company

perspective, being involved within an accelerator ecosystem assists firms in their investments and in how to set up cohorts of start-ups in these areas. Building accelerator programs is not an easy task and corporate accelerators requires strong long-term financial commitment from management, as well as board support, anticipating that the accelerators will be a cost centre at first, until it reach accomplishing returns (IRR). Having higher degree of freedom allows accelerators to increase agility and effectiveness of programs, to inspire entrepreneurial community and motivate internal employees. Building an accelerator is like an exercise in 'business building' in itself. Jack Welch, former CEO of GE once said, "If the rate of change on the outside exceeds the rate of change on the inside, the end is near.

4.2. Objectives of Corporate Accelerators

Depending on how accelerator organizations would like to derive an economic benefit, there are in general two kinds of leading objectives of corporate accelerator programs: 'strategic and financial'. Nevertheless, organizations are free to design their objective focus.

4.2.1 Strategic objectives

A joint effort amongst enterprises and new businesses can deliver numerous beneficial outcomes for both of the parties involved. An anticipated key benefit of running an accelerator program comes with an advancement of new innovations with least costs, attracting new fresh ideas and talents, as well as decreasing the threat to their particular center of core operations (Mocker, Bielli, Haley, 2015). Therefore, corporate accelerator program act as a funnel between start-ups and innovative business models. They channel resources to specific business unit in order to reduce the innovation gap, provide essential coordination of ideas that fall outside of the existing special units of corporations, and help them to reach new business model, technology or new markets.

In this model, strategic objectives are sorted out as priority before the design phase of program. This enables accelerator running companies to attract continuously large number of start-ups based on their internal needs in a given region or globally. Thereby,

organizations create an atmosphere with high degree of freedom and support the development of new business models or disruptive technologies, with the help of the given resources. These resources include inside and outside mentors (outside mentors aimed to eliminate negative sides, since inside mentors could be too single-minded and cannot see big pictures sometimes), technical infrastructure, human resources and industry representatives, in order to fasten and guarantee learning progress. Finally, with the help of the start-up team, the organization reaches its projected business model or disruptive technology. It then integrates it into its organization. Economic benefit can be derived as a direct consequence of the innovation integration. Here, the agreement with start-ups might be either on a small amount of equity taken or likely potential future investments.

4.2.2 Financial Objectives

The vast majority of corporate accelerators are centered around profiting from new technological advancements and ideas and not waiting for a start-up to have a successful IPO, partly because it requires long term financial commitment. But some accelerators focus on building the venture and preparing start-ups for seed-stage investors knowing that an investment may come from a sponsoring organization or outside environment.

However, in this approach, achieving financial benefit for the organization through the accelerator program can be obtained by closely collaborating with a venture capital arm, rather than focusing on existing instruments and knowledge. In this case, organization acts as an early-stage venture fund and devote resources to new cohort of start-ups, building them in exchange of equity (or convertible note) and creating financial returns throughout their exit. In other words, after precisely selecting promising and adaptable start-ups, accelerators concentrate on value improvement by mentoring and training, whereby start-ups improve and consequently increase the value of the parent company's shares in the start-up where remunerations come from premiums. Acceleration companies that follow mainly this strategy called 'unicorn hunters' in business world.

4.3. Four distinct types

Based on the corporate accelerators' characteristics and its primary objectives, Kanbach and Stubner (2016) divided programs into four distinct types, called respectively; listening post, value chain investor, test laboratory and unicorn hunter

Listening Post

This type of corporate accelerator mainly focuses on overall understanding of recent trends and developments in a respective market, as well as initiating relations with the entrepreneurial community. However, there is no equity involvement by the sponsoring organization, which denotes it is simply used as a strategic tool. All kinds of innovative ideas are welcomed independently of whether ideas are strictly aligned with the corporation's business area or not. Equity requirement is not obligatory in this type.

Value Chain Investor

The value chain investor corporate accelerator type identifies leading gaps within company's value chain, and then develops and integrates new products and services into the parent company's value chain. However, it does not necessarily change the sponsoring company's current offerings to the market. It is a strategic choice of the company similar to listening post type. Elected start-ups can take advantage of existing value chain of broad expertise and reach distribution channels. For these benefits, sponsoring organizations are taking non-controlling equity and also offer possible convertible notes.

Test Laboratory

The main reasoning in this type is to create a protected environment to test promising internal and external business ideas. It is also part of a strategic objective in which the organization leverages opportunities and takes equity. Compared to other types, test laboratory accelerators focus on both external and internal business ideas.

Unicorn Hunter

Other than the other three types, this type of corporate accelerators follows financial objectives. At first, corporate accelerators are investing in promising start-ups and concentrates on value improvement that make them more valuable. They then earn a financial premium as the value of the shares increases. Equity involvement can be taken as a fixed amount or in the form of convertible notes which are converted into equity at the next financing round of the start-up. However, a significant number of start-ups will fail to achieve acceptable results. The logic is primarily the same as with independent accelerators like TechStar, Y Combinator and Plug and Play etc. Since here the firms are looking for additional financial returns, the main business focus does not have to be aligned with parent company.

A current question could be: why would a start-up consider joining a corporate accelerator rather than traditional 'powered by' accelerators? This question has more than one answer as below:

- ✓ *Equity free support* - Despite the fact that most corporations still apply an equity charge, some high-professional large corporate accelerators have started to give financing to new businesses without taking equity. Microsoft, Merck Group, Google, Anheuser Busch Inbev SA, and ImmobilienScout24 can be an example to this whereas traditional accelerators definitely charge for equity.
- ✓ *Future customers* - Not always but some promising start-ups can become a direct supplier or customer of the parent company. For example, TIM's #Wcap winning start-ups automatically join Albo Veloce where they become TIM suppliers.
- ✓ *Industry - focused mentors:* Corporations often design the value chain investor type of accelerator programs where accelerators focus on the industry they run in. That helps start-ups gain a deep industry expertise and the professional network of mentors.

4.4 Criticism over Corporate Accelerators

Despite the hype surrounding corporate accelerators, there has been some criticism over it. According to Lean Start-up expert Greg Twemlow, an essential criticism is that start-up accelerator network was poorly regulated. His criticism focused on the insufficient amount of venture capital funding which makes it hard to support ventures once they had grown through the early seed capital funding stage.

Another criticism is the role of corporate start-up accelerators in companies' rate of survival. Success is not proved. Policy analyst Jared Konczal, at the Kauffman Foundation explains that some in the industry have misused statistical measures to present an excessively positive assessment of early accelerator results (Konczal, Forbes 2012). Additional criticisms are pointed at specific types of accelerators. The revenue driven entities sometimes turn a blind eye to a potential alternative solution or product development of start-ups during program. This feature of accelerator programs might have a negative side, as there might be a conflict of interests. Companies in these cases may not structure their objects to answer start-ups requirements as good as possible. It can be viewed as a private initiative that operates primarily on a brutal process of killing 'some talent' which is not creating a good image in the entrepreneurial community.

Other hand, Bradford (2014) emphasizes the problem of start-ups having insufficient information to make decisions. It is important to consider the objective of an accelerator and make a selection based on this. However, very few start-ups really comprehend this, and the rest being seduced by flashy co-working spaces and shiny logos. The accelerators might provide a small amount of funding for equity and support through mentorship bounded within a short-term program in a friendly environment (Bradford Jon, 2014).

Chapter 5

Do accelerators create job and economic growth?

Entrepreneurs are forming the coming era of creative organizations, they develop GDP, and fuel long haul financial developments for our community. As the number of start-ups grows dramatically thanks to the emergence of digital technologies, accelerator programs grow in parallel to this. In order to compete with each other, individual accelerators have focused on industry segments of their own. However, nine out of ten start-ups fail as a rule of thumb, stated by angel investor Peter Alan. Despite the failure rates, start-ups are still a vital part of economy and of job creation.

According to a research carried out by Dan Stangler and Robert Litan (2009) in the U.S., without diffusion of start-ups, each year there would be no net job growth in the economy of U.S. In order words, net job losers are existing firms which are one year aged or older. The *Figure 5.1* indicates that starting from 1977 start-up jobs drove overall net job growth until 2005.

On the other hand, start-ups cannot lose jobs because the U.S. Census Bureau's Business Dynamics Statistics (BDS) data consider a firm a start-up only in its first year of operation (t+0), thus net job creation for them are always positive, by definition. Despite probability of losing job at time 't+1' other stakeholders such as governmental agencies, accelerators and industry should appreciate job creation in a one year period of time.

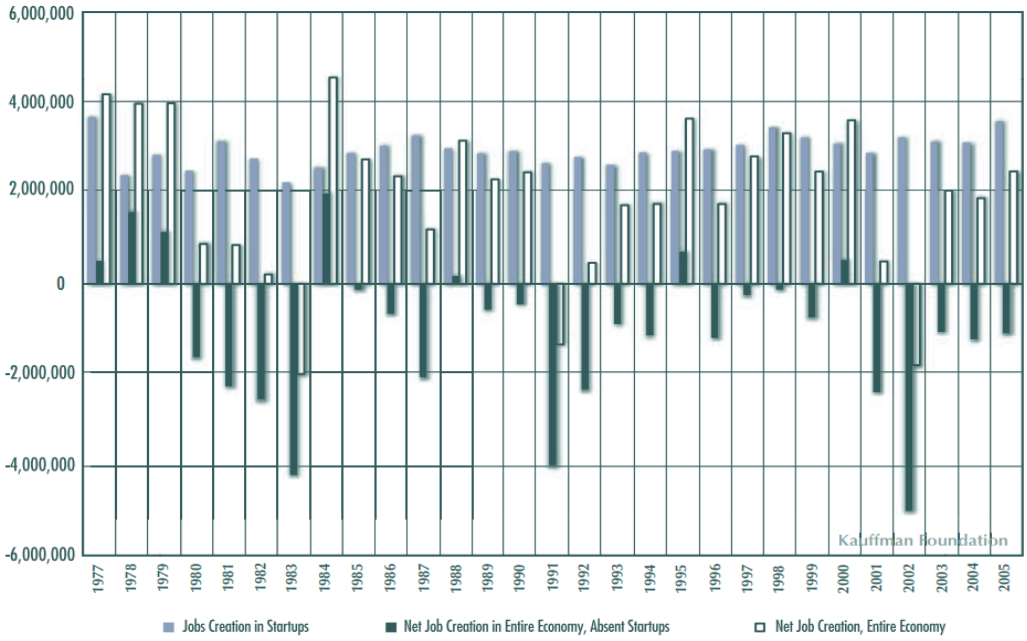


Figure 5.1: Creation of jobs by Start-ups compared to net job creation in U.S. economy *(Source: "Where Will the Jobs Come From?" Kauffman Foundation)*

Accordingly, Christiansen compiled data from Seed-DB and found that 2000 start-ups were funded and most notably, these overall 2000 start-ups created more than 4800 jobs (Rip Empson, 2012). All these datasets indicate that start-ups are creating more jobs and causing economic growth.

Kauffman foundation also presents data about net job creation based on firm age. Accordingly, this research explains that young firms (1-5-year-old) are the biggest contributor to the net job creation, while the oldest companies are the holder of the largest current employment in U.S. economy (Dan Stangler and Robert Litan, 2009).

Despite net job creation that comes from young firms, they fail at higher rates than more established organizations. Kauffman Foundation analysts Michael Horell and Litan stressed that less than half of every single new foundation survive to their fifth year (Michael Horell and Litan, 2010). Conversely, this statement doesn't refer to almost half of companies will have gone until their fifth year since their establishment. According to Horrel and Litan, employments made by firms are more robust than young firm's failure rate. As a rule of thumb, most newly established businesses exit within initial years, remain the same or make a progress. Decker et al. (2014) explain that "a small fraction of young

firms exhibits very high growth and contribute substantially to job creation and high-growth firms make up for nearly all the job losses associated with shrinking and exiting firms within their cohort".

For all these discussions, the relationship between rate of employment within cohort and age of newly established firm is clearly indicated in *Figure 5.2*, which is created by Kaufmann Foundation (Micheal Horell and Litan, 2010). Thereby, the figure tells us that, even if the number of firms in a given cohort called 'establishments' (black line in the figure) is reduced more than 50% at the 5th year of firm, the percentage of employment within cohort remains at 80%, making 20% less since the beginning. Moreover, when establishments have decreased so rapidly, employment has more or less levelled out means surviving firms continue to grow, whereas fluctuation of employment continues as firms age. Therefore, cohorts of start-ups contribute to the net job creation (Decker et al. 2014). In this sense, I have answered my research question that proposed in Chapter-1.

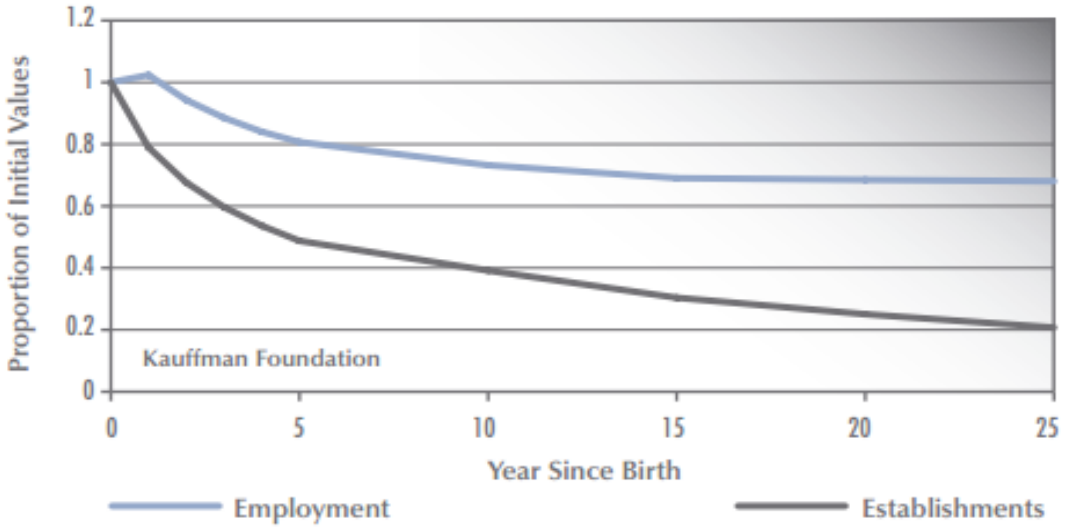


Figure 5.2: Total employment and establishments in firm cohorts as they age. *(*Source: After Inception: How Enduring is Job Creation by Start-ups? *Kauffman Foundation)*

Conclusion

To conclude, the literature review disclosed that there are distinctive kinds of accelerators that have diverse goals and shape their investment both in monetary and non-monetary terms, yet the pattern of providing amenities between various sorts of accelerators may turn out more similar as the concept is widening around globe. The structure of investments differs however among the types of accelerators. *Traditional* accelerators mainly focus on keeping their investments in the start-up, since it assists accelerators in maintaining sustainability and support program operations. However, this is not generally the case for corporate accelerators.

From the beginning of 2005, with the Y Combinator model, accelerators have turned into a pillar for start-ups. All through this period, accelerators action plan and development procedures have kept on advancing, mirroring the requirements and available human resources in terms of entrepreneurs in their home areas. However, individual accelerators are not alone in this ecosystem benefiting from the phenomenon. Since the beginning of 2010 the corporations were also included in the scope of accelerators. With this respect, start-ups that are part of corporate programs are as successful as those in individual programs such as TechStars and Y Combinator.

While this statement is true, the research has not been done on the role of corporate start-ups accelerators at companies' survival rate. Also, wide range of comparative knowledge is provided about diverse programs that are commonly confused with corporate accelerators. These programs are corporate ventures and incubators where the objective of programs, duration of support, investment options and equity requirements are completely different from corporate accelerators, which is clearly indicated in *Table 2.2*.

In the design phase, I have provided a database for two broad capital markets. Then, the list is verified by corporate accelerators database where multiple and join-partnership programs were eliminated. Based on this, 19 firms from S&P500 and 21 firms from STOXX Euro 600 adopted the corporate acceleration phenomenon. All firms within the sample offered the duration as fixed term. Taking into account other criteria, result from the 40 programs can be summarized as:

- *Equity:* 17 programs do not take equity and 3 of them did not indicate (N/I)
- *Powered by:* 11 programs were outsourced

- *Provided office space:* one program does not offer, while 6 programs did not indicate
- *Demo day:* Except four programs (N/I), the rest offer demo days
- *Funding:* Eight programs do not offer investments, while two of them did not indicated (N/I) and two of them indicated funding as 'flexible'
- *Cohort base:* Only one program did not indicate cohort based intake

What can be said is that these corporate programs are quite competitive and they only invest in promising start-ups, where companies would reach greater ROI with these program, rather than being a cost centre for them. Similarly, accepting the lower quality start-ups might also decrease the reputation of the corporate accelerator, thus being ineffective might be interpreted as the program being unproductive or poorly structured.

Overall, corporate accelerators have a positive effect on the functioning of start-ups ecosystem they work with, even compared with other early stage investors. Thus, positively affected start-up groups give the advantages to the extensive regional economy, causing a spillover at a wider perspective. The number of corporate accelerators is increasing, and this sign is encouraging. Indeed, they cause job creation and economic growth within an economy.

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APPENDIX-A

TABLE-A.1: *62 Most Active Corporate Venture Capital Funds of 2016 (Source: CB Insights 2017)*

CVC	Parents	Country	Industry Sector
Intel Capital	Intel	USA	Manufacturing
Google Ventures	Google	USA	Information
Salesforce Ventures	Salesforce	USA	Information
Comcast Ventures	Comcast	USA	Information
Qualcomm Ventures	Qualcomm	USA	Manufacturing
Cisco Investments	Cisco	USA	Manufacturing
GE Ventures	General Electric	USA	Construction
Bloomberg Beta	Bloomberg	USA	Information
Samsung Ventures	Samsung	South Korea	Retail Trade
Microsoft Ventures	Microsoft	USA	Professional, Scientific and Technical Services
CyberAgent Ventures	CyberAgent	Japan	Professional, Scientific and Technical Services
Johnson & Johnson Innovation	Johnson & Johnson	USA	Manufacturing
Pfizer Venture Investments	Pfizer	USA	Manufacturing
SBI Investment	SBI Holdings	Japan	Professional, Scientific and Technical Services
Slack Fund	N/A	USA	Finance and Insurance
Siemens Venture Capital	Siemens	Germany	Manufacturing
AXA Strategic Ventures	AXA	France	Finance and Insurance
Ping An Ventures	Ping An	China	Finance and Insurance
Swisscom Ventures	Swisscom	Switzerland	Information
In-Q-Tel	Cental Intelligence Agency	USA	Public Administration
Telstra Ventures	Telstra	Australia	Information
Brand Capital	Bennett Coleman and Co Ltd	India	Information
Verizon Ventures	Verizon	USA	Information
SR One	Glaxo Smith Kline	UK	Manufacturing
Legend Capital	Legend Holdings	China	Manufacturing
Roche Venture Fund	Roche	Switzerland	Manufacturing
Nokia Growth Partners	Nokia	USA	Retail Trade
SMBC Venture Capital	Sumitomo Mitsui Financial Group	Japan	Finance and Insurance
Citi Ventures	Citi Group	USA	Finance and Insurance
Novartis Venture Funds	Novartis	Switzerland	Retail Trade
MAIF Avenir	MAIF	France	Finance and Insurance
WuXi Venture Fund	WuXi AppTec	China	Professional, Scientific and Technical Services
Lilly Asia Ventures	Eli Lilly and Company	USA	Manufacturing
NTT DoCoMo Ventures	NTT DoCoMo	Japan	Finance and Insurance
American Express Ventures	American Express	USA	Finance and Insurance

CVC	Parents	Country	Industry Sector
Bertelsmann Digital Media Investments	Bertelsmann	Germany	Finance and Insurance
Orange Digital Ventures	Orange	France	Information
Boehringer Ingelheim Venture Fund	Boehringer Ingelheim	Germany	Wholesale Trade
capitalG	Alphabet	USA	Finance and Insurance
Santander InnoVentures	Banco Santander	UK	Finance and Insurance
BlueCross BlueShield Venture Partners	Blue Cross Blue Shield Association	USA	Finance and Insurance
Fosun Kinzon Capital	Fosun International Ltd.	China	Finance and Insurance
Hearst Ventures	Hearst	USA	Information
Alexa Fund	Amazon	USA	Professional, Scientific and Technical Services
YJ Capital	Yahoo! Japan	Japan	Finance and Insurance
AbbVie Biotech Ventures	AbbVie	USA	Manufacturing
Nissay Capital	NipponLife	Japan	Finance and Insurance
Saudi Aramco Energy Ventures	Saudi Aramco	Saudi Arabia	Manufacturing
Novo Ventures	Novo	Denmark	Manufacturing
Hewlett-Packard Ventures	Hewlett-Packard	USA	Manufacturing
Corigin Ventures	Corigin	USA	N/A
Ascension Ventures	Ascension Health	USA	Health Care and Social Assistance
American Family Ventures	American Family Insurance	USA	Finance and Insurance
SingTel Innov8	SingTel	Singapore	Information
Rakuten Ventures	Rakuten	Japan	Information
Time Warner Investments	Time Warner Inc.	USA	Information
Recruit Strategic Partners	Recruit	Japan	Professional, Scientific and Technical Services
Liberty Global Ventures	Liberty Global	UK	Information
MassMutual Ventures	MassMutual	USA	Finance and Insurance
Robert Bosch Venture Capital	Robert Bosch	Germany	Manufacturing
Mitsubishi UFJ Capital	Mitsubishi UFJ Financial Group	Japan	Finance and Insurance

TABLE-A.2: *62 Most Active Corporate Venture Capital Funds of 2015 (Source: CB Insights 2016)*

CVC	Parents	Country	Industry Sector
Intel Capital	Intel	USA	Manufacturing
Google Ventures	Google	USA	Information
Qualcomm Ventures	Qualcomm	USA	Manufacturing
Salesforce Ventures	Salesforce	USA	Information
GE Ventures	General Electric	USA	Construction
Comcast Ventures	Comcast	USA	Information
Samsung Ventures	Samsung	South Korea	Retail Trade
F-Prime Capital	Fidelity Investments	USA	Finance and Insurance
Bloomberg Beta	Bloomberg	USA	Information
Cisco Investments	Cisco	USA	Manufacturing
SR One	Glaxo Smith Kline	UK	Manufacturing
Legend Capital	Legend Holdings	China	Manufacturing
Novartis Venture Funds	Novartis	Switzerland	Retail Trade
GREE Ventures	GREE Inc.	Japan	Information
Recruit Strategic Partners	Recruit	Japan	Professional, Scientific and Technical Services
Bertelsmann Digital Media Investments	Bertelsmann	USA	Finance and Insurance
Verizon Ventures	Verizon	USA	Information
Hearst Ventures	Hearst	USA	Information
Novo Ventures	Novo	Denmark	Manufacturing
CapitalG (former name Google Capital)	Alphabet	USA	Finance and Insurance
Johnson & Johnson Innovation	Johnson & Johnson	USA	Manufacturing
CyberAgent Ventures	CyberAgent	Japan	Professional, Scientific and Technical Services
Pfizer Venture Investments	Pfizer	USA	Manufacturing
Renren Lianhe Holdings	Renren Inc	China	Information
In-Q-Tel	Cental Intelligence Agency	USA	Public Administration
Alexa Fund	Amazon	USA	Professional, Scientific and Technical Services
Citi Ventures	Citi Group	USA	Finance and Insurance
Siemens Venture Capital	Siemens	Germany	Manufacturing
Ping An Ventures	Ping An	China	Finance and Insurance
DG Incubation	Digital Garage Inc	Japan	Information
YJ Capital	Yahoo! Japan	Japan	Finance and Insurance
SMBC Venture Capital	Sumitomo Mitsui Financial Group	Japan	Finance and Insurance
Merck Global Health Innovation Fund	Merck	USA	Manufacturing
TIM Ventures	TIM	Italy	Information
Roche Venture Fund	Roche	Switzerland	Manufacturing
Robert Bosch Venture Capital	Robert Bosch	Germany	Manufacturing
Fosun Kinzon Capital	Fosun International Ltd.	China	Finance and Insurance

CVC	Parent	Country	Industry sector
Eircom Digital Boost Initiative	Eir	Ireland	Information
AXA Strategic Ventures	AXA	USA	Finance and Insurance
American Express Ventures	American Express	USA	Finance and Insurance
Dentsu Digital Holdings	Dentsu Inc.	Japan	Information
Tengelmann Ventures	Telgelmann Group	Germany	Finance and Insurance
Rakuten Ventures	Rakuten	Japan	Information
BioMed Ventures	BioMed Realty Inc	USA	Offices of Real Estate Agents and Brokers
Takeda Ventures	Takeda Pharmaceutical	USA	Manufacturing
SingTel Innov8	SingTel	Singapore	Information
BlueCross BlueShield Venture Partners	Blue Cross Blue Shield Association	USA	Finance and Insurance
Orange Digital Ventures	Orange	France	Information
Bertelsmann Asia Investments	Bertelsmann	China	Finance and Insurance
ITOCHU Technology Ventures	ITOCHU Corporation.	Japan	Retail Trade
MS Ventures	Microsoft	USA	Professional, Scientific and Technical Services
Mitsubishi UFJ Capital	Mitsubishi UFJ Financial Group	Japan	Finance and Insurance
EMC Ventures	EMC Corporation	USA	Manufacturing
Sanofi-Genzyme BioVentures	Sanofi	USA	Health Care and Social Assistance
Kaiser Permanente Ventures	Kaiser Permanente	USA	Health Care and Social Assistance
Technicolor Ventures	N/A	USA	Finance and Insurance
Kickstart Ventures	Globe Telecom	Philippines	Information
Axiata Digital Innovation Fund	Axiata Group Berhad	Malaysia	Information
Zaffre Investments	Blue Cross Blue Shield of Massachusetts, Inc.	USA	Finance and Insurance
Investor Growth Capital	Investor AB	Sweden	Professional, Scientific and Technical Services
MassMutual Ventures	MassMutual	USA	Finance and Insurance

TABLE-A.3:

Parent	Accelerator	Equity	Fixed term	Powered by	Office Space	Demo day	Funding	Cohor Based
Allianz	Allianz Digital Accelerator	N/I	6 months	No	Yes	Yes	Flexible, not indicated in detail	N/I
METRO AG	Techstars Metro Accelerator	Yes, 6%	3 months	Techstars	Yes	Yes	Yes, 20K EUR	Yes
Orange SA	Orange Fab France	N/I	3 months	No	Yes	Yes	Yes, up to $20K	Yes
Unilever Plc	The Unilever Foundry	N/I	3 months	No	Yes	Yes	Yes, up to $50K	Yes
SAP	Start-up Focus	No	10 weeks	No	N/I	Yes	N/I	Yes
E. ON SE	: agile accelerator	Yes	3 months	No	Yes	Yes	Yes, up to $22K	Yes
ImmobilienScout24	You Is Now	No	3 months	No	Yes	Yes	Yes, 15K EUR	Yes
Interpublic Group of Companies	R/GA Accelerator	Yes, 6%	4 months	Techstars	Yes	Yes	Yes, $20K from Techstars	Yes
MasterCard Inc.	Start Path Europe	No	6 months	No	Yes	N/I	No	Yes
Mondelez International...	Shopper Futures Accelerator	No	3 months	No	N/I	Yes	Yes, 30K EUR	Yes
Barclays PLC	Barclays Accelerator	Yes, 6%	3 months	Techstars	Yes	Yes	Yes, up to $120K	Yes
Coca-Cola Co	The Bridge	No	6 months	No	Yes	Yes	No	Yes
Telecom Italia SpA	#Wcap Accelerator	Yes, 5%	3 months	No	Yes	Yes	Yes, 40K EUR	Yes
Qualcomm Inc.	Qualcomm Robotics Accelerator	Yes	4 months	Techstars	Yes	Yes	Yes, 20K from Techstars	Yes
Microsoft Corp	Microsoft Ventures Accelerator	No	4 months	No	Yes	Yes	No	Yes
IBM	IBM Alpha Zone	No	5 months	No	Yes	Yes	No	Yes
Airbus Group SE	Airbus BizLab	No	6 months	No	Yes	Yes	No	Yes
Cisco Systems Inc.	Cisco Entrepreneurs in Residence	No	6 months	No	Yes	Yes	Flexible, not indicated in detail	Yes
BNP Paribas	Innov&Connect	No	6 months	No	Yes	Yes	No	Yes
Citrix Systems Inc.	Citrix Startup Accelerator	No	3 months	No	Yes	Yes	No	Yes

Anheuser Busch Inbev SA	Budweiser Dream Brewery	No	3 months	No	N/I	N/I	$20K	Yes
ProSiebenSat.1 Media AG	ProSiebenSat.1 Accelerator	Yes, 5%	3 months	No	Yes	Yes	Yes, 25K EUR	Yes
Target Corp	Techstars Retail Accelerator	Yes, 6%-10%	3 months	Techstars	Yes	Yes	Yes, up to $120K	Yes
Telefonica SA	wayra	Yes, 7%-10%	min 6months	No	Yes	Yes	Yes, up to $50K as a convertible note	Yes
Wells Fargo & Co	Wells Fargo Startup Ac...	Yes, 4.9%	6 months	No	N/I	N/I	Yes, up to $500K	Yes
AT&T Inc.	AT&T Aspire Accelerator	Yes, 5%	6 months	No	N/I	Yes	Yes, up to $100K	Yes
Bayer AG	Grants4Apps Accelerator	Yes, less than 10%	3 months	No	Yes	Yes	Yes, 50K EUR	Yes
Axel Springer	Axel Springer Plug and...	Yes, 5%	100 days	Plug Play	Yes	Yes	Yes, 25K EUR	Yes
Lowe's Companies, Inc.	Lowe's Accelerator	Yes, 6%-10%	4 months	Kyron	Yes	Yes	Yes, $10K from Kyron	Yes
Telenet Group Holding NV	Telenet Idealabs	No	4 months	Idealabs	Yes	Yes	Yes, at least 25K EUR	Yes
Google	Developers Launchpad Studio	No	6 months	No	Yes	Yes	Yes, up to $50K	Yes
Walt Disney Co	Disney Accelerator	Yes, 6%-10%	4 months	Techstars	Yes	Yes	Yes, $20K from Techstars	Yes
Pearson PLC	Pearson Catalyst for Education	No	3 months	No	No	N/I	No	Yes
Nordea Bank AB	Startup Accelerator	Yes, 4%	3 months	Nestolma	Yes	Yes	Yes,10K EUR from Nestolma	Yes
ING Group	Innovation Studio	Yes, Flexible	6 months	No	Yes	Yes	Yes, up to 50K EUR	Yes
Intel Corp	Intel Education Acceleration	Yes, 1%-6%	4 months	No	Yes	Yes	Yes, up to $100K	Yes
Merck Group	Merck Accelerator	No	3 months	No	N/I	Yes	Yes, up to 50K EUR (conditional)	Yes
Citigroup Inc.	Citi Accelerator	No	4 months	No	Yes	Yes	N/I	Yes
L Brands Inc.	Leading Entrepreneurial	Yes, 6%-10%	4 months	Kyron	Yes	Yes	Yes, $10K from Kyron	Yes
Illumina	Illumina Accelerator	Yes, 8%	6 months	No	Yes	Yes	Yes, up to 100k (optional)	Yes