



MIT REAP

Regional Entrepreneurship
Acceleration Program

AUGUST 2018

Innovation Diplomats

Santiago de Chile

Sruthi Davuluri | iDiplomat 2018

Executive Summary

During my ten weeks in Santiago, I investigated the innovation ecosystem of Chile through the means of interviews, online research, and attending various entrepreneurship events. I focused on five different stakeholders: government, university, entrepreneurs, risk capital, and corporations. Chile's government agency CORFO, which is a part of the Ministry of Economy, plays a very strong role in the innovation ecosystem, and have developed one of the most prominent start-up accelerators in Latin America known as Startup Chile. The entrepreneurship culture has grown and developed a lot over the past twenty years, and it is now more socially acceptable to pursue entrepreneurship. Therefore, more students are becoming interested and the universities are offering more avenues for student participation in the ecosystem. Additionally, the amount of risk capital available has drastically increased, which is evinced by the formation and strong efforts of the Chilean Venture Capitalist Association (ACVC). Finally, there are numerous programs from corporations trying to invest more in innovation and support the developing ecosystem in Santiago. In addition to describing each stakeholder's role and progress in the innovation ecosystem, I have included recommendations for how each stakeholder could help address challenges and further develop the growing ecosystem.



Figure 1A. Office of Start-up Chile Figure 1B. Co-work space in Providencia, Santiago

Introduction

When asked "Why Chile?" most of the responses refer to the stable political economy, resources available, and characteristics of Chile that make it very unique. The population of Chile is approximately 18 million people, but about 7 million people are concentrated in the metropolitan area of Santiago.ⁱ While the country is relatively smaller, the city is big enough to have the critical mass that is essential for a successful entrepreneurship ecosystem. This makes it the perfect laboratory to experiment with a startup, because you have access to many resources and can see if there is traction in Santiago before expanding. The risk of attempting to start a startup in Santiago and failing is lower than attempting to start a startup in other ecosystems.

The growing economy of Chile make it a very attractive location to start a startup. Chile was the first country of South America to join the Organization for Economic Cooperation and Development (OECD) in 2010.ⁱⁱ Chile has one of the most developed and stable economy, low perception of corruption, and highest electrification rates in Latin America. Additionally, government-led innovation

programs continue with strength regardless of which political party that holds power. Furthermore, it has been said that Chile is the most technological country in Latin America, and the fast-developing entrepreneurial ecosystems makes it one of the leaders of innovation in the region.ⁱⁱⁱ

In addition to the stable political economy, Chile has high adoption of credit cards, which plays an instrumental role in fiscal transactions for most startups. Chile also has the highest electrification rates in Latin America, and has very high internet access. The technological literacy is very high. More than 75% of people in Santiago have a smart phone. For example, there are grandparents and people from the older generations that feel comfortable using Uber Eats and Google Maps, along with other applications. Additionally, there is access to credit and financial security. These facts are not trivial for a growing business that use e-commerce and more innovative payment mechanisms beyond cash.

Chile's main industries include agriculture, mining, and wine. The public sector plays a strong role in these industries, as there are state-owned mining companies, oil companies, and more. The strong public-private relationship in Chile is important for understanding the type of role the state plays in the economy. Also, the professional environment supports traditional career paths such as working for a large business.

Entrepreneurial Culture

About 10 years ago, an entrepreneur was seen as an unemployed person attempting to sell smoke, or something valueless. This made it difficult for entrepreneurs to differentiate themselves as someone who is serious about starting a business and creating value. While there were some local startups, they were working without an existing ecosystem or many resources. Many of them were trying to apply international businesses, such as Groupon or E-Bay, in Latin America. Typically, Chileans are very risk averse and it is difficult to encourage entrepreneurs to pursue a very drastic or disruptive idea.

Additionally, it was difficult to form a successful startup without many Chilean role models, or resources to find advice. Over time, being an entrepreneur has become a valid career path, and more universities and private partners have joined and strengthened the ecosystem.

Methodology

Over the course of ten weeks, I formally interviewed 12 members of the entrepreneurship ecosystem. I spoke to people who represent different stakeholders including: entrepreneurs in different stages, risk capital, government, university, and corporate sectors. I want to emphasize my gratitude to everybody for their honesty, time, and resources that they have provided. I would like to specially thank Pepe Pascual, from Wayra Chile Tecnología e Innovación Limitada, for connecting me with many people in his network. The 11 people who I interviewed and felt comfortable publishing their name and title are listed below.

List of Interviewees (listed in alphabetical order):

- [Hernán Acuña](#) – Enel Chile Innovation Hub Manager, Teaches at Universidad del Desarrollo
- [Patrick Alex](#) – Investment Analyst at Mountain Nazca, Assistant Professor of Entrepreneurship & Innovation at Pontificia Universidad Católica de Chile

- [Sebastián Díaz Mes](#) – Deputy Director and CMO of Start-Up Chile, Professor at Universidad Dinis Terrae
- [Constanza Levican](#) – CEO at Suncast, MS Student at Pontificia Universidad Católica de Chile
- [Gonzalo Mena Fuenzalida](#) – Entrepreneur, Director of the Department of Local Economic Development at Hub Providencia, Entrepreneurship Professor at Duoc UC, Global Facilitator of Startup Weekend
- [Mario Mora](#) – CEO & Founder of First Job, Mentor at NXTP Labs, Mentor of Startup Chile
- [Pepe Pascual](#) – Head of Portfolio and Head of Scouting for Telefonía's Wayra Chile Tecnología e Innovación Limitada
- [Augusto Ruiz -Tagle](#) – Co-founder of Destacame, MIT Sloan Alumni
- [Tadashi Takaoke Caqueo](#) – Entrepreneurship Manager of CORFO, Mentor of Startup Chile, MBA Professor at the Universidad de Chile
- [Lee Ullmann](#) – Director of MIT Sloan Latin America
- [Pedro Varas Bruzzone](#) – CEO & Co-founder of FounderList

Most of the interviews were conducted in English, with a few of them in both Spanish and English. While I typically allowed the conversation to flow, there were some guiding questions that I used to direct the interview. The questions vary depending on the stakeholder, and are listed below.

Government

1. What do you feel is the government's role to promote entrepreneurship on technological innovation?
2. What are the different roles for federal government, state government, and municipal government?
3. What policies and/or programs has your branch of the government (or another branch) put into place for technological innovation?
4. What is the biggest piece of 'red tape' in the government that keeps people from starting businesses?
5. In what ways, if any, does your government agency participate with other stakeholders in the region?

University

1. Does your university have a center to encourage entrepreneurship in students? Has it ever been considered?
2. Does your university have a center dedicated to commercializing technology?
3. Do you offer courses on entrepreneurship?
4. In what ways, if any, does your university participate with other stakeholders in the region?

Entrepreneurship

1. Why did you decide to start the kind of business you did?
2. Why did you decide to physically locate your business where you did?
3. How long did it take to start your business? Why?
4. What is the cultural stigma around entrepreneurship in your region? Why?
5. Did you pursue risk capital when you started or did you bootstrap? Why?

6. Did you have formal entrepreneurship training?
7. What is your relationship with CORFO?

Risk Capital

1. How many types of venture / risk capital firms are in this region?
2. Does your firm focus on a particular industry to fund?
3. How do you decide which startups to fund?
4. What is your relationship with CORFO?

Corporate

1. Does your company partner with other stakeholder in your region in any way to promote entrepreneurship?
2. Does your company offer grants or prizes of any kind to innovators in your region?
3. Does your company feel it can benefit from new entrepreneurial spirit in your region? Why or why not?
4. What services does your company offer that lay the foundation for innovation in your region? Infrastructure?
5. What is your relationship with CORFO?

In addition to the 12 formal interviews, I attended several entrepreneurship and innovation events, such as those organized by Startup Chile, and spoke to additional members of the ecosystem during the networking sessions. Details from my interviews, personal research, and observations have contributed to the key findings and recommendations in the following sections.

Key Findings

CORFO

It is impossible to describe the innovation ecosystem in Chile without introducing the importance of public programs developed to encourage entrepreneurship and innovation. The narrative begins with the government agency named CORFO (directly translated into Production Development Corporation), which was founded in 1939. CORFO is the government agency under the Ministry of Economy, Development and Tourism in charge of supporting entrepreneurship, innovation and competitiveness in the country together with strengthening human capital and technological capabilities. With the main purpose of promoting the economic development of Chile, it is divided into several different departments including Strategic Development, Innovation, and Entrepreneurship, and more.¹ Decades ago, the Chilean government realized that it is not advisable if the economy is strongly dependent on the price of specific commodities such as copper. Chile recognizes that entrepreneurs are one of the main driving forces of economic growth, and is investing more in the innovation ecosystem.

CORFO plays a fundamental role in the entrepreneurship ecosystem through a multitude of means including offering grants directly, developing the ecosystem through collaboration with private actors, and startup organizing competitions. They invest in accelerators, offer seed capital for

¹ <https://www.corfo.cl/sites/cpp/movil/estructura-corporativa>

entrepreneurs, fund various programs including Startup Chile and Fundacion de Chile, in addition to a number of other mechanisms of supporting the ecosystem.^{iv}

One important program they have is called Fondo Etapas Temprana (FET), which was created to facilitate the access of risk capital. The CORFO program FET facilitates access to financing for companies that are less than 3 years old and also triples the private resources of private investors and investment fund managers.^v CORFO's main goal about a decade ago was to attract foreign talent and reach a critical mass of entrepreneurs. Now that they have reached that goal, they are trying to further develop the ecosystem by creating a critical mass of investors and private participation.

CORFO has people and programs that focus on specific geographic regions, industries or demographics. For example, regional directors focus on the innovation ecosystem across the 16 states of Chile to ensure that the innovation is not concentrated in Santiago.^{vi} They also have support that is dedicated for female founders called the S-Factory.^{vii} These programs help diversify the entrepreneurship ecosystem of Chile.

Startup Chile

One of the most important initiatives of CORFO is Start-up Chile, which was recently included on Forbes' list of Top-10 Startup Accelerators in the world.^{viii} Start-up Chile was started in 2010 to develop the entrepreneurship ecosystem, adopt new technologies, diversify the economy, and attract foreign talent to Chile. Startup Chile offers equity free money, training, money and access to investors, a one-year working visa, and a soft landing in Chile.^{ix} The public startup accelerator has helped over 1,300 startups, worked with more than 3,500 entrepreneurs and is currently valued at \$1.4 Billion USD. It does so through several different avenues: the S Factory, which is a startup acceleration program specifically designed for female founders^x, Seed Funding, and additional resources for internationalization.^{xi} Almost every single startup story has received funding or had some connection with Start-up Chile.

The main objective of Startup Chile was to convert Chile to being the leader of innovation and entrepreneurship in all of Latin America, which it has become over the past decade. Another purpose was to slowly change the entrepreneurship culture in Chile. It helped put the entrepreneur in the spotlight, and made it a desirable career path rather than something to be ashamed about.

Since one of the initial goals was to attract foreign talent, the participants during the first few years of Startup Chile were all foreigners and ex-pats. At the time, the typical mindset of Chileans was that they were not qualified to be successful entrepreneurs and that they needed some special characteristics to pursue entrepreneurship. By introducing Chileans to foreign talent, it provided the opportunity for Chileans to understand that anybody could be an entrepreneurship with hard work and the right attitude. By seeing and working with international entrepreneurs from all over the world, it helped generate new relationships with other entrepreneurs and slowly changed the perspective of what it takes to be an entrepreneur. However, some Chilean entrepreneurs expressed discontent that the CORFO funds was being use to fund foreign entrepreneurs and they were not included in the program at first.

Typically, Startup Chile invests in 250 startups per year, across two batches of the application process annually. The grant size varies between 10 million CLP (approximately \$15,000 USD) to 60 million CLP (approximately \$90,000 USD) depending on the phase of the startup. One of the main strengths and characteristics of the accelerator that differentiates it is that it has startups across all

different stages in their portfolio. In addition to the fiscal support, Startup Chile also offers a one-year work visa, opportunity for soft-landing, global connections, free access to their co-work space, and additional perks and benefits.

Startup Chile was the leader and example for similar government-funded accelerators. The accelerator provides more money than the parallel government programs in Peru, Korea, Colombia, and more. The economy and political stability provide the appropriate environment for the accelerator to be successful.

Hub Providencia

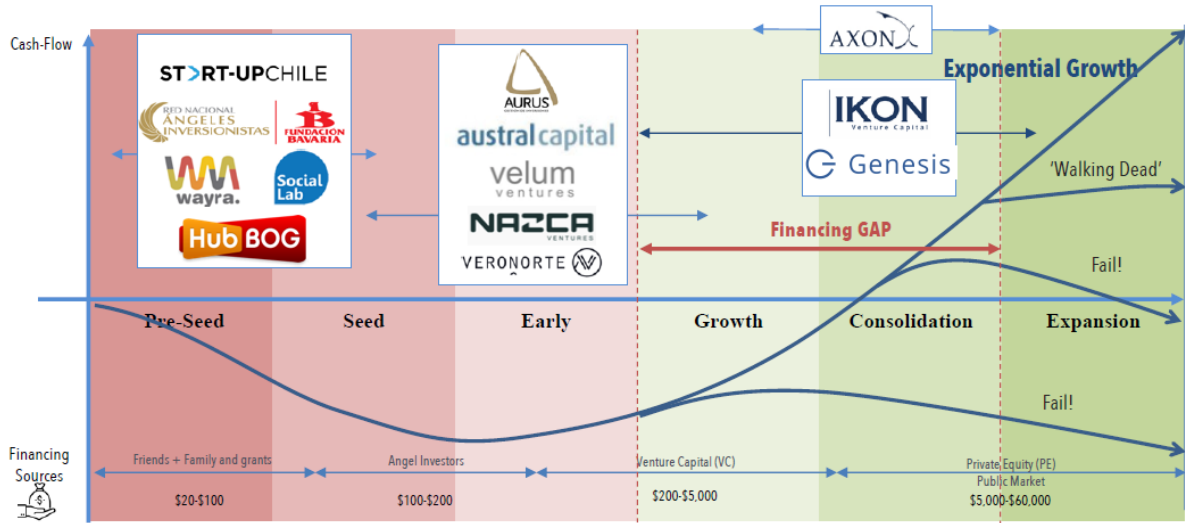
On a more local level, the Municipality of Providencia recently opened Hub Providencia, which offers many resources and events for entrepreneurs in addition to a free co-work space. The main purpose is to promote the innovation ecosystem in Providencia specifically, which they do through programs, workshops, and mentorship.^{xii} While some of the people that participate are more traditional startups, others are small business owners such as people that sell empanadas on the streets.

Gonzalo Mena, from Hub Providencia, mentioned that there are numerous entrepreneurs who take advantage of their services. There are many women who are the heads of their respective households and start their own business, including even selling artisanal products on the streets, to provide for their family. Hub Providencia has a special program with earmarked SEED capital for these type of business owners. This program does ask for returns on investment; it is trying to support the local economy.

Risk Capital

In addition to Startup Chile, there are a number of private risk capital funds present in Santiago. The Chilean Venture Capital Association (ACVC) is made up of about 10 venture capital funds including Telefonica's Wayra, Magma Partners, Manutara Ventures, Scale Capital, Engie Factory, Mountain Nazca, Dadneo, Masisa, Genesis Ventures, NXTP Labs, and Alaya Capital Partners.^{xiii} The alliance seeks partnerships with public institutions, institutional ventures, and other ecosystems around the world.

ACVC's main goals include: promoting investments and raising awareness of the economic benefits associated with Venture Capital in Chile along with influencing relevant public policies. The VCs that belong to ACVC focus on startups in various different stages including pre-seed, seed, and early stages. Figure 2 displays the prime VCs across the stages, and ACVC pointed out the financial gap between US \$1M and US \$9M. The entrepreneurs agree that it is typically difficult to find a medium sized ticket in Chile.



Source: In-house research through direct interviews and other public information
 All amounts are in thousands of dollars (US\$ '000)

Figure 2. Cash-Flow and Stages of a Typical Startup. Source: ACVC

“The average ticket invested is nearly \$1.58 million, where almost 70% of them are over \$500,000” (ACVC, 2018). On average, more funds are invested during the *Seed* and *Early Stages* in Chile than in the United States, which tends to fund more during the *Growth* and *Expansion* phases. In addition to the investments, the VCs offer a variety of other resources including co-work spaces, workshops, connections with other investors, assistance with a funding strategy, and strategic business planning.

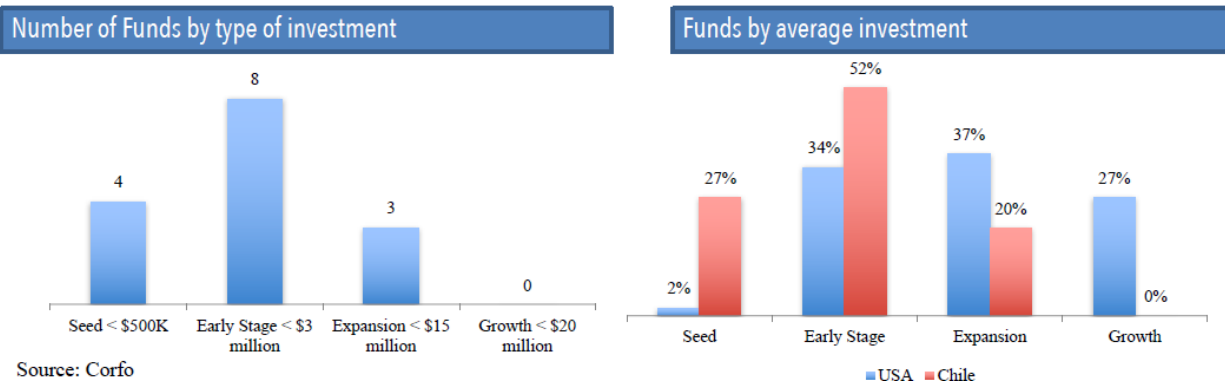


Figure 3. A visual display of the different types of investment, and a comparison between Investments in Chile and USA

Corporations

Most industries in Chile are made up of large corporations, many of which are led by a private-public partnership. In the past, the large corporations did not have a lot of experience investing in startups or engaging in the innovation community. Recently, more corporations have been getting involved with innovation efforts by opening their own incubators, accelerators, or through other means. In addition to encouraging the entrepreneurship ecosystem, one of the main motivations is that the

large corporations do not want to miss out on innovation that could disrupt their respective industry. Many of these corporate owned accelerators or incubators are interested in adopting new businesses and new income streams.

For example, Enel has an Innovation Hub in Santiago in order to scout out partnerships with startups. Engie has recently developed Engie Factory, which serves as a corporate-owned accelerator. I will describe the type of approach Telefonica's Wayra takes below, because it is one of the largest corporate venture capitalist funds in Santiago. However, many other CVCs follow similar practices and use similar methods.

Telefonica's Innovation arm, Wayra, is one of the largest and most prominent Corporate Venture Capital (CVC) programs in Santiago. Wayra belongs to Telefonica Open Future, which includes similar programs with larger funds. The larger VC's of Telefonica, including Amerigo and Telefonica Ventures, operate on a different scale and aim to acquire companies. One natural progression would be for a startup to start with Wayra, then move to Amerigo and finally on to Telefonica Ventures.

In contrast, the main purpose of Wayra is to incorporate innovative technologies into the larger corporation of Telefonica. They are considered "pre-seed," and search for companies that are between 200,000 and 400,000 USD. When Wayra invests in a startup, it often attracts other venture capitalists and angel investors as well.

The director of scouting, Pepe Pascual, is proactively looking for startups to invest in. They are searching for startups that can either help create new products for Telefonica, generate new revenue streams, or improve efficiencies within Telefonica. They prefer companies that are targeted towards telecommunication or digital businesses. They select companies with strong products, have a low churn rate, and low cost of acquisition. Across one year, they would review about 1,000 companies and invest between 3 – 5 of them. Pepe's role as a scout is essential in the acquisition process, because they prefer to meet startups through networking and scouting rather than a standard application process.

Companies that belong in a CVC's portfolio have access to a number of resources beyond the financial investment. In some ways, the partnership and collaboration are more important than the money invested. Most CVCs offer different forms of mentorship by hiring consultants for specific tasks, such as Human Resources, IT, or strategic finance. Generally, they try to meet often during weekly meetings to stay up to date. The need to write a monthly report and prepare for weekly meetings motivates startups to define clear benchmarks that can be used to ascertain that they are moving at the desired pace. Also, the corporations can offer the benefits from their international presence across the world, which helps minimize the cost of internationalization. For example, a startup that belongs to Engie Factory would have a customer in Argentina should it choose to open an office there. Additionally, the expansiveness of the corporation's network helps create connections all over the world. Beyond the consultation and personal connections, CVCs offer a range of physical resources such as workspaces, software to track visits to a webpage, Amazon Prime, and more.

In addition to Wayra's "pre-seed" initiative, various other corporations are getting more involved in the innovation ecosystem of Santiago. For example, Enel has Innovation Hubs all over the world, with the intention of bringing in innovative ideas and technologies into their various business lines. They view startups and Small to Medium Enterprises (SME's) as partners and use a collaboration model which sets them apart from other corporate relationships. Instead of investing in startups, they

partner with SMEs and finance the projects directly. While this is not strictly a CVC, it still helps bring innovation into the larger corporations, which plays an important role in the development of the innovation ecosystem of Santiago. Enel also has Idea Hubs which encourage entrepreneurship within the different branches of Enel.

Another initiative to further develop innovation in the clean energy industry is a corporate-led incubator named Engie Factory. The accelerator/incubator in Santiago is the first type of program across all of Engie's offices, and started about 2 years ago. The goal is to work with startups that could eventually create value for the company. They have three different relationships with startups: startup challenges, a more traditional CVC, and another method referred to as *Company Building*. Similar to other startup challenges, Engie identifies an area that needs improvement within the company and poses a question in the form of a competition, which allows participants to attempt to solve the problem with innovative ideas. Engie Factory also has a CVC where it invests in and mentors' startups that are energy related, sustainable, and use digital solutions. In addition to the startup challenges and CVC efforts of Engie Factory, they also have a more unique tract where they find an entrepreneur to develop an existing idea and supply the necessary resources to build a startup based off of this idea. For example, if Engie Factory has an idea for an energy-related startup, they will search for an entrepreneur who has the experience and drive to create a startup based off of this idea and see if there is traction. The founder has full autonomy of the company, but has access to mentorship or direction during weekly meetings. If the idea shows enough traction, Engie Factory can use the services of the startup or even buy it one day. In return for the funding and access to resources, Engie Factory holds a certain percentage of the shares of the company.

University

About a decade ago, there were entrepreneurship courses offered but primarily targeted towards engineering and medical students. In the past few years, the curriculum has changed such that it is encouraging, and even beginning to require, students across different departments to take innovation and entrepreneurship courses. Some of these courses invite entrepreneurs or members of the ecosystem to speak to the students, while others provide opportunities for a more hands-on experience and ask the students to design their own MVP. Additionally, there is an option at several universities where a student can choose to either write a thesis or start a startup.

Many Universities are opening or further developing an Innovation Center, which offers resources and facilities to help develop research, has strong partnerships with private corporations, and provides mentorships for students interested in innovation. For example, the Innovation Center of the School of Engineering at Pontificia Universidad Católica de Chile, referred to as Centro de Innovacion UC Anacleto Angelini, has an incubator called Brain Chile which holds an annual competition. The 12 startups selected during the competition receive \$ 3,000,000 CLP (approximately \$4,500 USD), validation of business models, access to workspaces, laboratories, and time with specialized mentors.^{xiv} There are a number of similar annual competitions which offer financial prizes, advice for writing a strategic business plan, and eventually the resources necessary to internationalize the business.^{xv} Some of the competitions are industry-specific such as "Marathon por Entel" Hackathon for telecom or "La Fiebre del Sol"^{xvi} for the solar industry.

The Innovation Centers use their partnership with larger corporations to develop innovation projects for the students. For example, program called "Sin Limites" offered by Centro de Innovacion UC

Anacleto Angelini, provides students with the opportunity to apply and work on projects for about 10 hours per week.^{xvii} They also organize more traditional hackathons to encourage students to participate in the innovation ecosystem and meet other students with similar entrepreneurial ambitions. These programs are very important for increasing the confidence of the next generation of entrepreneurs in addition to encouraging students to network which may help in the future when they are forming a team for a future startup.^{xviii}

Finally, one of the most widespread university initiatives is Jump Chile, which is an acceleration academy that started in the Innovation Center Pontificia Universidad Católica. However, after its proven success, it was opened to all university students in Chile and eventually all students across Latin American. The diversity of participants has increased the quality of projects and ideas. As of 2018, there are about 20,000 entrepreneurs in the community, it has provided more than 700 hours of training, and organizes workshops all over Latin America.

The universities and their respective innovation centers are encouraging students and offering useful resources such as a workspace, publicity, and contacts. Most students feel it is an advantage to be an entrepreneur while at university, because of the resources offered. This is an important step in the transition of the entrepreneurship ecosystem. Previously, a large portion of recently graduated students join large corporations or are attracted to more traditional career paths. Recently, there have been more graduates joining a startup or beginning their own.

Entrepreneurs

In addition to the public and private collaborations explained in previous sections, there are a number of social and other resources that contribute to the growth of the innovation ecosystem in Santiago. For example, there are social meetups and innovation events which provide the opportunity for entrepreneurs to network with others in the ecosystem. Not only does this provide useful professional connections, but it also helps dissolve the aforementioned social stigma towards entrepreneurship and increase the confidence by meeting others going through similar difficulties.

Startup Weekend provides the opportunity for entrepreneurs from all stages to learn about entrepreneurship, expand their network, and practice useful skills. Startup Weekend is a worldwide community in 150 countries, which is more countries than there are Starbucks.^{xix} While they host many events all over the world, their main goal is to host an event that runs for 54 hours to help people that have various levels of experience of entrepreneurship to learn the basics of building a business model, receiving customer feedback, validating the product, and pitching the concept. It is an all-inclusive event, encouraging people from different backgrounds to meet and work together for an entire weekend. The motivation is that one learns better by *doing* rather than listening or watching. After the competition is over, they hold a networking session with pizza and beer to remind everyone that the experience gained is worth more than the prize money.

The Banco del Estado de Chile, or the public bank in Chile, provides financial services specifically for the unbanked and SMEs. In 1980, a law formed the Guarantee Fund for Small Businessmen (Fondo de Garantía Pequeño Empresario, or FOGAPE), which is a state fund that supports small entrepreneurs and small employers. They provide the resources for entrepreneurs to open a business account, which is a very useful service that is not offered in all innovation ecosystems.^{xx}

While the Venture Capital funds and corporate VCs have been developing in the last decade, entrepreneurs have been using angel investors as another source of crowd funding. There is a startup named FounderList which aims to be the main platform of indirect equity crowd funding in Latin America. Similar to Angel List, it helps connect entrepreneurs with investors to close the gap in this part of the ecosystem. Ideally, the startup should already have some type of validation, including an MVP and proof of traction. Founder List is looking for startups that have a quick turn around which will be easier for them to raise funds soon. The investors could be a working professional, retired individual, or someone who is simply interested in getting involved with the innovation ecosystem. If this part of the investment process is centralized, it would allow to better management and improve the efficiency of the ecosystem.

Internationalizing

While Chile's size is an advantage for growing startups, it also pushes entrepreneurs to internationalize, relatively soon, once they have established themselves in Santiago. One of the interviewees from the area of risk capital said that, "the startups that make it are those that have the international mentality." While Chile is an advantageous starting point, many startups open an office in Colombia, Peru, or Mexico. Startups expand all across Latin America, except it seems more difficult to enter Brazil due to the different language, culture, and regulatory challenges. There are advantages and disadvantages for this necessity of internationalizing, which is one of the unique attributes of the innovation ecosystem in Santiago.

Attempting to internationalize one's startup is seen as the true test whether the idea is durable and strong enough to be expanded beyond Chile. However, some fall into the trap of trying to replicate the same idea and same business model in new environments. It is important to remember that the entrepreneurship ecosystem, regulations, and customer base vary across different locations. Therefore, one cannot simply replicate the same steps that may have been successful in Santiago in another city. It is necessary to take some time to understand the new ecosystem and personalize the product or service to the local culture, regulatory environment, and target customers. Also, it takes time to build a network and credibility in a new location. Finally, the cost of internationalization is very expensive and is not negligible.

Recommendations

While the entrepreneurship ecosystem has grown very rapidly over the past few decades, there are still areas for improvement across the different sectors. The following section contains my recommendations on how each stakeholder could enhance the entrepreneurship ecosystem in Santiago.

Recommendations: Government

One of the strengths and weaknesses of Startup Chile is the number of startups that it funds. Since almost every startup is involved with Startup Chile or CORFO in one way or another, it might lead to the entrepreneurs becoming comfortable with raising funds. If Startup Chile invested in fewer entrepreneurs but invested more effort into these fewer projects, it could lead to more benefits. As a high-risk profession, the last thing we want is for the entrepreneurs to be complacent or comfortable. I would recommend Startup Chile to encourage more innovative ideas and disruptive technologies.

The concept of government-funded risk capital is not completely new. In 1993, there was a government initiative in Israel named “Yozma,” which offers attractive tax incentives for venture capital investments and doubles these investments with government funding. During the next decade, the annual risk capital investments increased by approximately 60-fold.^{xxi} However, once the ecosystem had been established, the government stopped providing financial incentives. Similarly, CORFO should begin to look for an exit plan, or at least reduce its investments such that the ecosystem will not be dependent on the government in the future. The main idea is that the government will support the innovation ecosystem and display several successful cases and the benefits from this support, which will eventually encourage the private sector to get more involved in the ecosystem such that the government can finally reduce its role. However, I am unsure if the government has a clear vision of when the ecosystem is mature enough for the time when CORFO can leave. Clear metrics can dictate when the government will reduce its support, and by how much. In the future, they^{xxii} could transition to a different model that offers refundable investments instead of equity-free grants.

The government could initiate more drastic policies to stimulate private investment. Currently, they are proposing a law that would provide a tax refund for investments in R&D. Instead, the government could mandate large corporations to invest in the innovation ecosystem. For example, there is a policy in Brazil that requires a certain amount of profits to be invested in Research & Development.

On a more detailed level, there are some policies or requirements of CORFO that might fail to encourage the ecosystem in the most effective way. For example, the FET policy aforementioned, which says that CORFO will invest three times the amount of money invested in by a private investor, requires the investments to be for a startup that is less than 3 years. While this was intended to encourage growing startups, it is more difficult to meet predetermined metrics such as amount of sales or increased valuation with these time limits. Many entrepreneurs and VCs have mentioned that this specific rule does more harm than benefits provided.

Additionally, it has been said that the applications for seed grants are very technical and difficult to understand. Since there are many different seed grants and the language is designed for lawyers, this is a large barrier to entry for entrepreneurs who may have varying levels of education. Instead, I would propose they decrease the number of types of grants offered and rewrite the applications such as they are more intuitive and comprehensive. For example, CORFO used to offer more than 50 types of grants and they are currently reducing the amount down to about 15 different types.

As with any government program, the importance of continuity should be stressed. CORFO is continuously speaking with other members of the ecosystem such as the VC’s, universities, and CVC’s. However, if there is a transition in the government and the positions in CORFO are replaced with other people, this could disrupt the continuity of this ongoing collaboration. Therefore, it is important for the conversations and timeline to be clearly documented for the next generation of CORFO, which may transition after 4 years.

Recommendations: University

While there are more and more entrepreneurship and innovation courses being offered in an academic setting, most of them focus on only one part of the entrepreneurship process such as the iteration process necessary when designing an MVP. However, I think it would be very helpful to teach

the specific steps necessary for starting a business, which resources to take advantage for in the ecosystem, and how to approach the investment process. For example, the traditional engineering curriculum would not teach the average student about the financial background necessary to start a business. This problem is further exacerbated because the engineering curriculum does not allow for many electives during the course of their academic career.

I believe that it is very important for every student, from every country and across any concentration, should take a course to understand fundamental financial concepts such as credit, taxes, and personal finance. Furthermore, I would recommend additional courses offered to explain how startups approach risk investment, how startups must navigate the investment rounds and how to negotiate with investors. I think there is a knowledge gap here, which could be addressed by the universities.

Recommendations: Entrepreneurship

The relationship between the entrepreneur and the investor should be strengthened and improved. The average entrepreneur without formal training might not understand what the investors are looking for, and this could help them to close as a Series A Startup. Currently, it is not easy to learn how to approach an investment round, and I think this knowledge could benefit the entrepreneurs a lot. The timing of the investment rounds is not negligible, and not easy to grasp as an entrepreneur who is new to the ecosystem. Furthermore, it is better to look for funds when the startup already has something concrete to show the investors, such as sales in addition to an MVP. While these are just simple examples, the relationship with investors is very important and should be given more thought and time.

One very important concept that cannot be stressed enough is the concept of ownership. "An entrepreneur should treat ownership like your skin. It is okay to have a low salary, but you should have high ownership. You need to treat it like gasoline," explains Pepe Pascual. "Though you need to give up some ownership at every stage, if you end up with 40% for example, you are screwed." It is important to make decisions of growth on your own terms, but always keep in mind the importance of ownership. "The farther you go with more shares, the better it is for your company" Entrepreneurs in Chile need to understand and exercise this concept. "The more participation you have, the more power you have." From the investors perspective, they will most likely ask for more shares if they are taking a higher risk.

As the money is being raised, it is very important for the entrepreneur to set clear, quantitative and measurable goals to benchmark progress. There are other KPIs such as the number of sales, cost of acquisition, Loan-to-Value (LTV), and churn rate that are more important than the amount of money raised. Additionally, entrepreneurs need to focus more on long-term planning. If they do plan on internationalizing, how and when? If the startup only has one thing to offer, and it is in a relatively small market such as the one in Santiago, then there is not a lot of room for growth. Due to the size of the market in Santiago, the entrepreneur should be emphasizing their time on economies of scale, new marketing, and internationalizing.

Finally, the entrepreneurs of Santiago need to focus more on the exit of the startup. Typically, the stages of the startup include the creation of the company, increasing sales, internationalizing, and one option is to exit when someone offers to buy the company. If the startup sells and receives a large sum of money, they could save some and inject the rest back into the ecosystem through investments. This would help close the circle and encourage the current generation of startups. If a budding

entrepreneur hears about this story, then they would be inspired by this success case and try to do the same.

Recommendations: Risk Capital & Corporations

One of the most important recommendations for the innovation ecosystem in Santiago is that there need to be more private venture capital options. For example, there are many large, international corporations dominating the large industries. More of them need to invest in startups and funnel more capital into the ecosystem. For example, if CodelCo or another large state-owned private corporate opened a CodelCo Ventures, or a strong innovation branch, it would help contribute a lot of capital into the ecosystem and encourage the innovation ecosystem of Santiago.

One of the main advantages is that the solutions provided by startups could be more more innovative and would provide a fresh perspective which is important for large, traditional corporations. One of the main reasons why they do not participate in the innovation game is because these corporations are typically risk-averse. Also, they are looking for a short-term return on investment. It would be helpful if the corporations understand that investment and revenue are not directly correlated. However, if the government initiates the aforementioned policy that required private corporations to invest a portion of their revenue in innovation, this would help contribute a lot to the ecosystem. Both the government and corporations need to recognize that the “valley of death” is a lot steeper here in Chile than it is in other places due to the lack of sufficient risk capital.

Conclusion & Acknowledgements

Overall, the entrepreneurship ecosystem in Santiago has rapidly increased and grown over the past twenty years. Each stakeholder has played a fundamental and crucial role during this process, and continues to learn from other ecosystems and further expand the ecosystem. One of the most unique attributes of the innovation ecosystem is the role of the government with the state-funded accelerator, Startup Chile, and CORFO’s strong presence. While this has been one of the main factors for the ecosystem’s growth, there are a number of challenges associated with their involvement. I hope to see a stronger presence of the corporations in the innovation ecosystem, which would help encourage entrepreneurs and allow for the number of investors to reach a critical mass. I look forward to watching the innovation ecosystem in Santiago continue to grow and learn from their previous experiences.

I would like to thank each and every person I spoke with who helped me along this journey. I would also like to thank the professors and administrators from MIT Sloan including Sarah Jane Maxted, Nerminka Muslija, and Kam Mongkolsinh. I am very grateful to have had the opportunity to participate in the international diplomats program as it has really enhanced my time here in Santiago.

ⁱ <http://worldpopulationreview.com/world-cities/santiago-population/>

ⁱⁱ “Chile’s Accession to the OECD.” Students, Computers and Learning - Making the Connection - En - OECD, www.oecd.org/chile/chilesaccessiontotheoecd.htm.

ⁱⁱⁱ <http://www.savills.co.uk/tech-cities/index.html#santiago>

^{iv} <http://www.fomentobiobio.cl/programas-financiamiento/prae-programa-regional-de-apoyo-emprendimiento/>

^v <http://wapp4.corfo.cl/fondoetapastempranas/>

^{vi} <http://www.fomentobiobio.cl/programas-financiamiento/prae-programa-regional-de-apoyo-emprendimiento/>

^{vii} <http://www.startupchile.org/programs/the-s-factory/>

-
- viii https://www.forbes.com/sites/alejandrocremades/2018/08/07/top-10-startup-accelerators-based-on-successful-exits/amp/?__twitter_impression=true
- ix <http://www.startupchile.org/>
- x <http://www.startupchile.org/programs/the-s-factory/>
- xi <http://www.startupchile.org/>
- xii <http://www.providencia.cl/innovacion>
- xiii <http://acvc.cl/home/>
- xiv <https://www.brainchile.cl/>
- xv <https://www.ruta5chile.cl/>
- xvi <http://ayllusolar.cl/es/la-fiebre-del-sol/>
- xvii <http://centrodeinnovacion.uc.cl/en/programa/sinlimites/>
- xviii <https://www.jumpchile.com/nosotros/>
- xix <https://startupweekend.org/>
- xx <http://www.fogape.cl/sitio/que-es-fogape/>
- xxi <https://www.city-journal.org/html/silicon-israel-13208.html>
- xxii http://www.unesco.org/new/en/media-services/single-view/news/brazils_sectorial_funds_face_challenges_in_their_mission/