

**STARTUPS ACCELERATOR PROGRAMS:  
A COMPARATIVE ANALYSIS OF ACCELERATION MECHANISMS FROM START-UP BRAZIL AND  
START-UP CHILE PROGRAM**

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ANÁLISE COMPARATIVA DOS MECANISMOS DE ACELERAÇÃO DOS PROGRAMAS START-UP  
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START-UP BRASIL Y START-UP CHILE**

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## ABSTRACT

This article aims to analyze and compare the public accelerator programs to support startups, Start-Up Brazil and Start-Up Chile, mechanisms contribution to its development, and, as far as possible, contribute to the studies about fostering entrepreneurship at emerging markets. The search strategy was the comparison of two case studies. The results showed that the acceleration mechanisms adopted by programs truly supported the startups' performance and, in mostly, the programs were important at these companies' trajectories. Additionally, it was listed suggestions for the best procedure for each mechanism in each program.

**Keywords:** Dynamic Entrepreneurship; Acceleration programs; Startups.

## RESUMO

Este artigo tem como objetivo analisar e comparar os mecanismos de aceleração de programas públicos para incentivar startups Start-Up Brazil e Start-Up Chile, colaborar para a sua evolução, e, na medida do possível, contribuir para os estudos de incentivo ao empreendedorismo em mercados emergentes. A estratégia de pesquisa empregada foi a comparação de dois estudos de caso. Os resultados mostraram que os mecanismos de aceleração adotadas pelos programas favorecem o desempenho das startups e que, em geral, os programas foram importantes nas trajetórias dessas empresas. Adicionalmente foram elencadas sugestões para a melhor atuação de cada mecanismo em cada programa.

**Palavras-chave:** Empreendedorismo dinâmico; Programas de aceleração; *Start-ups*.

## RESUMEN

Este artículo tiene como objetivo analizar y comparar los mecanismos de aceleración de programas públicos para incentivar startups Start-Up Brazil y Start-Up Chile, colaborar para su evolución, y, en la medida de lo posible, contribuir a los estudios de incentivo al espíritu emprendedor mercados emergentes. La estrategia de investigación empleada fue la comparación de dos estudios de caso. Los resultados mostraron que los mecanismos de aceleración adoptados por los programas favorecen el desempeño de las startups y que, en general, los programas fueron importantes en las trayectorias de esas empresas. Adicionalmente se presentaron sugerencias para la mejor actuación de cada mecanismo en cada programa.

**Palabras clave:** Emprendedor dinámico; Programas de aceleración; *Start-ups*.

## 1 INTRODUCTION

Entrepreneurship in its most innovative aspects, produces wealth, increases productive capacity and generate new consumer demands by creating new products and markets, acting, therefore, on the supply side and the demand side (HISRICH and PETERS, 1992). When it comes to technological innovation, interest of most startups, we highlight four foundations for its development: creative ideas, entrepreneurial culture, high-tech infrastructure and venture capital investment (DERTOUZOS, 1997). Not being possible to have these four well-developed on its own startup, entrepreneurs seek support in deficit areas, usually focusing on the launch of the company, business plan or market analysis (SALLES-FILHO and ALBERGONI, 2006).

Despite the growing interest in startups, there is no consensus about its definition. Its essence encourages innovation, particularly in accelerated technological development times, as present themselves as especially simple and flexible organizations compared to large well-established companies (ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT - OECD, 1997). In the definition of Blank (2010, p.1), "startup is an organization formed to search for a repeatable and scalable business model" concept, which emphasizes its search for a business model oriented to growth, relieve the definition of a model business since the early stage and discharges to be technology based. The concepts associated with startups express its search for accelerated growth and the uncertain conditions in which they operate (GRAHAM, 2012; RIES, 2011).

According to Cohen and Hochberg (2014), acceleration programs especially geared to the startups' specific needs have emerged as a way to support these new companies, making interactions between entrepreneurs faster, increasing their adaptation and learning ability. Despite the rapid expansion of these programs, there is not a consolidated knowledge about its effectiveness. One reason is the entire system's youth: programs, startups that integrated them and the acceleration phenomenon itself are all new. In addition, the authors notice a great heterogeneity among the acceleration programs, making it difficult to specify common success factors. In a scenario like this, even gauge the accelerated companies' revenue becomes a complicating factor, since many of them are no longer part of the programs (were graded) for less than five years ago.

Despite the uncertainties, for Miller and Bound (2011) there are indications suggesting a positive impact of accelerator programs on these young companies: as hasten  
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entrepreneurs' learning of, create powerful networks and build trust between founders, investors and other supporters. The authors point out that from the first acceleration program in 2005, the Y Combinator, this model was widespread, to such an extent there is a large number of acceleration programs supporting hundreds of startups each year, with cases of great success.

In terms of countries, it is believed a positive correlation between investment in research and development and the degree of development of the country and also among investment in companies nominated "of new economy" (Nasdaq<sup>1</sup>) this country and its economic growth potential (SENOR & SINGER, 2009). Therefore, supporting creation and growth of innovative enterprises has become an important economic policy also among emerging countries wishing to accelerate their development (CORSI and DIBERARDINO, 2014), cases of Brazil and Chile. Taking Global Entrepreneurship Index ranking (GEI), which lists the entrepreneurship ecosystem in 132 countries, as a parameter e considering just countries from Latin America and Caribe, Chile appears as the most developed nation, while Brazil negatively surprises on 16th place. Despite the size of its economy, Brazil is behind nations with much lower economic pang, like Bolivia and Belize. Therefore, the report itself highlights Brazilian's entrepreneurship ecosystem improvement potential and suggests the country to observe Chile as an example of good practice (ÁCS, SZERB and AUTIO, 2016).

This paper's aim is to investigate whether the startup accelerator programs, Start-Up Brazil and Start-Up Chile, have mechanisms that contributed to the evolution of their startups by examining each business-accelerated model. Another objective is to identify and to analyze its acceleration mechanisms as well understand these mechanisms' contribution to their development. Lastly, establishing a comparison between programs and listing suggestions for the mechanisms of each of them. Moreover, it is desired, as far as possible, to contribute to studies on fostering the dynamic entrepreneurship in emerging markets.

National Program for Acceleration to Startups, the Start-Up Brazil, is an initiative of the Brazilian government in partnership with accelerator companies, to support emerging technology-based companies, being intended mainly to domestic entrepreneurs. According to the website of the Start-Up Brazil, the importance of this initiative to the Brazilian government lies in the understanding that "Startups have the role of constantly revitalizing the market, but

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<sup>1</sup> Automated stock exchange that brings together high-tech companies.

they need a healthy environment to develop and be successful. The accelerators have the function of directing and strengthening startups' development (STARTUP BRAZIL, 2016)".

The incentive program for startups of the Chilean government, Start-Up Chile is aimed at the international market, being connected to the economic policies of the country, since encourages business generation with foreign partners. Attract entrepreneurs from different parts of the world who are starting business with global potential helps to promote Chile as an international hub of entrepreneurship, as reference in Latin America to the thread and promotes entrepreneurship based on knowledge culturally to local population (QUINTAIROS, ALMEIDA and OLIVEIRA, 2013).

## 2 LITERATURE REVIEW

In this section, it will be discuss a literature review from the innovation perspective. Additionally, entrepreneurship environmental and acceleration program will be follow subject to be described.

### 2.1 INNOVATION AND ECONOMIC DEVELOPMENT

There is a long history of recognition by economists about the importance that science and technology have for the economic and productive growth (FREEMAN and SOETE, 2008). Innovation needs "a set of institutions that allow new knowledge to diffuse throughout the economy." (MAZZUCATO, 2014, p. 256). Innovations that change the status quo are so characteristic of capitalism as competitiveness, together they play a kind of pressure that feeds back the production system (ARRIGHI, 1998). The Oslo Manual defines technological product innovation as "(...) implementation/commercialization of a product with improved performance characteristics such as to deliver objectively new or improved services to the consumer" (ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT - OECD/EUROSAT, 2005, p. 9). The same for Christensen (2001), to whom the innovation concept is necessarily permeated by the idea of improvement, providing the user a benefit, under this understanding just offer something new to the market is not enough.

Innovation process can be considered the current economy dynamo, boosting economic growth power through new technologies dissemination in society. Generally, it is a result of synergistic relationship between private and public investment. Innovation brings with it expectation of financial profits, qualified jobs and new solutions for the most diverse

industries (communications, energy, chemical, electronics), creating new markets and productive system transformation in a long-term investment vision with clear objectives and able to bring lasting benefits (MAZZUCATO, 2014).

Difference at innovation skills is one of the main responsible for economic development gap, productivity gap and by less developed countries' troubles towards level changing (FAGERBERG, 2004). Technologically developed countries benefit from producing and distributing innovative products experience, obtaining advantages related to production and distribution processes. Have this experience enables a country accelerating and enhance its ability in new products' market introduction, hindering the entry of countries in previous stages of development in this process increasingly (Perez, 2000). Despite the growing creation of innovation-based products with international distribution in developing countries and despite the cutting-edge technology development outside the highly industrialized nations be entirely possible and desirable, there is a tendency to develop incremental innovation in emerging countries (ZESCHKY, WIDENMAYER and GASSMAN, 2011).

## 2.2 DYNAMIC ENTREPRENEURSHIP FOSTERING

Dynamic entrepreneurship is understood as one that gathers startups and new businesses with exponential growth potential, which are usually technology-based. It was noticed a correlation between favorable conditions for its development and the economic development of countries in general. Thus, efforts to develop it have great potential to positively reflect on society as a whole (KANTIS, FEDERICO and GARCÍA, 2015). OECD (1997) stands out the main conditions for this development as: qualification of "human capital" through supporting education, science and technology; fostering partnerships between these sectors and industry; investment in telecommunications infrastructure (internet, telephone, etc.) and consolidation of an open market, with rules favoring competition, financing options and that drives companies toward innovation, efficiency and collaboration.

Latin American countries are at a strategic redefinition moment. The economic scenario, even if favorable for trading commodities expansion, does not seem to offer the stability needed to develop these countries. Thereby, thinking about new development ways based on own abilities is crucial, that can be existing or potential skills to be developed (KANTIS et al., 2015). As support policies for innovation and technological advancement, OECD (1997)

proposes new types of financing, promotion of science and high-risk research, policies supporting technological diffusion, international cooperation and human capital development that supports these advances.

Regarding startups, their relevance with public policy makers is increasing. These companies are skilled jobs source and new markets generator. However, fostering an enabling environment for them is not considered a simple task for governments. Reconciling public sector complexity with dynamic entrepreneurship's fluidity appears to be a major challenge, as these companies' needs are flexibility in fiscal policy, simplicity in labor law, data protection and bold steps to promote their markets, as insertion of startups in education system and provide new opportunities for entrepreneurs who have failed (OSIMO & STARTUP MANIFESTO POLICY TRACKER CROWDSOURCING COMMUNITY, 2016).

### 2.3 STARTUPS AND ACCELERATOR PROGRAMS

Ideally, a startup has as strengths its human capital, organizational culture and strong leadership. Flexibility and power to reinvent itself are important features once its business model can be changed several times until company structuration. Success and high profitability are promises for future fulfilled only by a small number of entrepreneurs, since most of them faces problems related to planning and execution failures (TELLES & MATOS, 2013).

Looking for these problems' solution and to leverage startups emerged, first in the United States in 2005, the acceleration model. In Brazil, the first accelerator came in 2008 and since then, 30 others have opened their doors. The model adopted follows same standards from accelerator programs in the United States and Europe (CARDOSO, 2013). In Chile, private accelerator began to emerge in 2012, two years after the Start-Up Chile first batch (INNOVACION.CL, 2013). The model followed by these countries can be defined as a program for groups in a fixed term, which includes mentoring, training and that has its apex at a public event for these companies' presentation called Demo Day<sup>2</sup> (COHEN & HOCHBERG, 2014). Operations from accelerator programs are similar to incubators' ones, being incubators active organizations since 1950s. Despite similarities, there are clear differences between them. Unlike accelerators, incubators do not define a short period of support (reaching up to 5

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<sup>2</sup> Event for presentations that brings together startups and investors.

years), do not establish cycles or put startups in batches, their selection processes usually do not present strong competition, their focus is not on mentorship, but in learning between peers, usually do not seek profit and are part of other institutions (COHEN, 2013).

According Miller and Bound (2011) and Hoffman and Radojevich-Kelley (2012), accelerator companies' working format generally follows a fairly similar structure, apart from offers for specific segments, isn't perceived a great distinction among their mechanisms. Their main features are: competitive and open application process, startups' batches where learning among peers is encouraged, time-limited acceleration cycle (usually between 3 and 6 months), intense work at small teams where entrepreneurs are mentored, trained and have networking generated, seed investment, usually in exchange for equity. Miller and Bound (2011) highlights investors, contacts and mentors' network as the accelerator program's main offers for startups. Attracting a skilled mentors group with varied experiences requires an equally interesting startups portfolio. Then, table 1 summarizes the main mechanisms used by accelerator programs to promote startups' development. It sets basis for the content analysis categories used at this article's analysis section.

Table 1 Main acceleration mechanisms

<b>Mechanisms</b>
Application process
Startup batches
Seed capital
Equity exchange
Benefits
Mentorship
Education
Network
Events
Monitoring

Source: Prepared by authors with data from Miller and Bound (2011), Cohen and Hochberg (2014) and Hoffman and Radojevich-Kelley (2012).

Although, in general, follow the same framework, there are many differences in each accelerator programs' ability to truly support startups. Studies about this model's effectiveness are scarce and even the few existing ones do not explain these differences. Increase knowledge about accelerator programs' effectiveness is important to determine if they, in fact, fulfill what propose (COHEN & HOCHBERG, 2014). While companies, accelerators usually rely on a kind of investment fund through which they can invest startups and afford their own costs. By investing is expected to make a profit in the future with the business results



or, more likely, through the sale of equity interest (Miller & Bound, 2011). In United States, an accelerator's average investment is \$ 39,500 per startup, plus provided services and as return, they receive 6% of equity interest (COHEN, HOCHBERG & FEDER, 2016). Important criticisms to Startup acceleration model are related of being able to build only relatively small companies and divert talent from high growth startups. Other point is that this model generate expectations when, in fact, it cannot totally prevent startups failures, exploiting young founders to establish contracts unfair to take advantage to the little experience of them. Additionally, accelerating problematic companies unlikely to great success, helping to create a bubble in the market and, finally, not to moving from mere schools for startups (MILLER & BOUND, 2011).

In Latin America, countries with the highest investments in startups' acceleration in 2015 were Chile in first place, with 15.1 million invested in 442 startups and Brazil as second, where were invested 5.52 million dollars in 297 startups. Chile had a significant growth over 33% in investment and almost 49% in accelerated companies when compared to 2014 where investment was 11.27 million and accelerated startups 297. In Brazil, investment was about one third compared to Chile and half of 11.45 million invested in the country in the previous year when the number of accelerated companies was 265. A significant change in the Brazilian market was that Start-Up Brazil have not received new groups in 2015, therefore the program investments in the period were referring only to 2014 classes. They are followed by Uruguay with 4.47 million dollars invested in 105 startups and then by Mexico with 2.7 million invested in 306 startups (GUST, 2015). About 31.56 million dollars were invested in 1,333 startups through 62 accelerators in Latin America. In relation to the 52% funding sources is entirely private capital, 19% are fully public capital, 23% of mixed capital (private and public) and 6% from other sources. Latin American market share corresponds to 16.4% of global investments in acceleration sector led by the United States with 79.16 million dollars invested (GUST, 2015).

### **3 METHODOLOGY**

The chosen research strategy, considering breadth and depth required to analyze two accelerator programs, was multiple case study, following Yin's (2005) concept who understands case studies as an appropriate strategy to focus on current phenomena research

seeking explain the phenomenon itself and its context. As cases of this research were selected the public accelerator programs Brazil Start-Up and Start-Up Chile. Regarding to dynamic entrepreneurship, according to the System Conditions Index for Dynamic Entrepreneurship Desarrollo Entrepreneur Program, ICSEd-Prodem, Chile is the Latin American country that gathers the best conditions for their development, while Brazil ranks second. In overall ranking, led by Singapore, Chile and Brazil take, respectively, position 29 and 35 from 56 countries assessed countries (KANTIS et al., 2015).

Start-Up Brazil and Start-Up Chile programs were chosen as units of analysis for its similarity, regional relevance and because of Global report's recommendation Entrepreneurship Index, who suggests Brazil to observe good Chilean practices for entrepreneurship encouragement (ÁCS et al., 2016). Both are government programs promoting business culture that blends innovation and entrepreneurship in their countries. Despite of differences as size and economic strength, Brazil and Chile are democratic Latin American countries developing their innovation systems, being in their social and political similarities great opportunities to share experiences and best practices. An important aim of this article is to establish a parallel between these programs and propose suggestions for both based on it.

Data collection was done through desk research and in-depth interviews. As desk research were analyzed websites, public notices and to press reports about programs. Based on this material, have been identified actors according to their role in each acceleration program that could be entrepreneur, who has participated of a program team. At Start-Up Brazil case two kind of accelerator program agents were identified: program's team and accelerator partner's team. The Chilean program does not have accelerator partners, so acceleration process is hold, mostly for their own team. It was decided not to disclose any participants name nor startups, since part of them was concerned about being identified.

To make easy establishing a comparison between the programs and investigate the contribution of the acceleration process in the point of view of entrepreneurs was used the interview model proposed by Gil (1999) that suggests build roadmaps with topics allowing listing what is being studied, favoring future triangulations and comparatives without forbid the interviewer to make adjustments during the process.

Completed interviews with entrepreneurs, roadmaps were produced to interview programs' team members, also with guidelines as open and semi-structured questions. A first Revista Eletrônica de Estratégia & Negócios, Florianópolis, v.11, n. 3, set./dez. 2018.

script has been set to interview the Start-Up Brazil's representative; a second script has been set to interview accelerator partners' representatives of Brazilian program and a third to interview Start-Up Chile's representative. This last script was composed of questions asked to the two agents of the Brazilian program (team and accelerator partner) plus questions intending to understand specificities of this program. 23 interviews were carried out, divided into 2 groups. The first consists of entrepreneurs who participated at least one program and the second group with programs' team members, including two representatives of accelerator partners that make part of Brazilian process. Two interviews covered both programs and the others only one of them - 12 about the Start-Up Brazil and 9 for the Start-Up Chile. Of these, 5 were conducted in person, 18 by Skype and 1 through e-mail, starting on 19th January 2016 and ending on 18th April 2016.

Content analysis categories are summarized at Table 2 and were set over data analysis process, were based on acceleration mechanisms identified in the theoretical sections and highlighted in turn at Table 1. This definition took into account the objectives of work, the hypotheses made in the pre-data analysis stage. As proposed by Yin (2005), data analysis was conducted based on the explanation method aiming to improve ideas and to allow the cross-case analysis.

Table 2 - Content analysis categories

Categories
Application process
Seed capital and Equity exchange
Mentorship and Qualification
Network and Benefits
Monitoring and Accountability

Source: Elaborated by the authors (2018).

#### 4 CROSS-CASE ANALYSIS

This comparative shows Start-Up Brazil and Start-Up Chile cross-case analysis highlighting programs' contributions for the accelerated startups' development. In addition, are presented suggestions of improvement for each mechanism in each program.

##### 4.1 CONTEXT OF THE PROGRAMS

Start-Up Chile and Start-Up Brazil are programs developed by federal governments and executed by its agencies having as direct beneficiaries' startup entrepreneurs. Brazilian Softex Revista Eletrônica de Estratégia & Negócios, Florianópolis, v.11, n. 3, set./dez. 2018.

is an agency linked to the Ministry of Science and Technology specifically targeted to promote the software and IT services industry in the country. The Chilean agency Corfo is linked to the Ministry of Economy, Development and Tourism of his country and works to encourage the production system by fostering innovation and entrepreneurship. This connection difference can be seen in the programs' operation, once the Chilean program uses nonrefundable transfers to materialize investment in and the Brazilian uses research grants.

The Brazilian program was created to foster startups segment in the country and provide basis for an ecosystem through formation of partnerships, while in turn, the Chilean program aims to spread the culture of entrepreneurship and promote the country as Latin America innovation hub. This can also be seen at program's operation, Start-Up Brazil uses partners in the process of acceleration and Start-Up Chile has strong marketing.

The programs have different sizes and different importance grades in their countries. According to Start-Up Chile (2016), it began operating in 2010, two years before his Brazilian counterpart, which started in 2012. In the first half 2016 the Chilean program received its 16th startups batch, surpassing 1,100 supported companies. Already the Start-Up Brazil (2016) has much less extent accelerated 183 companies in 4 rounds. The program has received its last startups batch in 2013. There is no official information about a new application process opening and consequently acceleration of new groups.

In general, the main differences in the operation of programs, that can be easiest compared in Table 3, it concerns the support length, that is 12 months in Brazil and 6 in Chile, acceleration partners at Brazilian program, what enhances startup's contact with market, different from Chile where it is done by the program own team, what makes it simple. The invested amount is approximately 60 thousand U.S. dollars at Start-Up Brazil, increased by the accelerator partner's investment with equity exchange of 20% maximum and it is 30 thousand U.S. dollars at Start-Up Chile, without any equity exchange. Another significant difference is that in the Chilean program entrepreneurs, mostly foreign, must move to Santiago, while in Brazil entrepreneurs, most Brazilians, may need to move or not according to accelerator partner operation who held partnership.

Table 3 - Parallel between the analyzed cases

	<b>Start-Up Brazil</b>	<b>Start-Up Chile</b>
<b>Duration</b>	Support from accelerator partner with a minimum duration of 3, plus	6 months

	12 months receiving financial investment and monitoring from program's team.	
<b>Location</b>	Several Brazilian cities, according to partner accelerator operation	Santiago Continued on next page...
<b>Investment</b>	200 thousand Reais (around 60 thousand U.S. Dollars).	20 million Chilean Pesos (around 30 thousand U.S. Dollars s).
<b>Equity Exchange</b>	Yes	No
<b>Acceleration Process</b>	Conducted mainly by accelerator partners team, supervised by own program staff.	Led by the program team, with support from possible partners.
<b>Foreigners Participation</b>	Program focus was on Brazilian entrepreneurs, foreigners-led projects participation of 8% in 4th generation.	Initial program focus was on foreign entrepreneurs, foreigners-led projects participation of 60% in 16th generation.
<b>Supported Startups</b>	183	More than 1,100

Source: Elaborated by the authors (2018).

#### 4.2 APPLICATION PROCESS

As mechanism from acceleration programs, the application process main contribution, beyond selecting startups that is its primary purpose, is to promote these startups' structuring. They are mobilized to meet programs' requirements and to show competitiveness within them. Moreover, there is a natural need to systematize the business model, once startups must describe company's value proposition to submit it for evaluation.

Start-Up Brazil, as particularity, also has a selection process for choosing its accelerator partners. This process strengthens the local ecosystem because it affects positively the standard offered service, establishing a minimum to be offered not just at the program but at the whole Brazilian acceleration market. This initiative could be taken into account in the Start-Up Chile Scale program, not analyzed in this study, but according to the website of the Start-Up Chile (<http://startupchile.org/about/>) also uses accelerator partnership, but unlike Start-Up Brazil does not seem to specify a competition system for that.

Another key feature of the Brazilian program is the requirement of partnerships between accelerators and startups. This requirement increases offers plurality and increases acceleration processes customization, besides make stronger startups' relations with markets where they operate. Such a plea is noticed as opposed to Start-Up Chile's that chooses centralizing the acceleration process in its headquarters, expatriating most entrepreneurs. It is true that action provides them considerable gains, as international experience and intense

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experiences with their peers, but, on the other hand, depart them from their markets. Brazilian experience could inspire new initiatives to consolidate the Chilean acceleration ecosystem, to stimulate agents already in operation in the country and strengthening startup entrepreneurs' relations with the Chilean and Latin American markets.

Start-Up Chile, in turn, has in its selection process an entrepreneurs' valuation, giving points to them that show able to influence the local entrepreneur ecosystem, contributing to the program's progress and consequently to evolution from those who belong to it. Selected groups put together entrepreneurs with great cultural diversity, promoting an exchange of high quality among them. This is due in part by the great estimation that many former participants have by the program, able to motivate them to play an active at application process dissemination. This quality valuation could be added to Brazilian application program process. Another Chilean positive highlight is a major concern to truly know the entrepreneurs during the selection using expedients such as videos and interviews, making process more organic. This kind of approach to candidates could be adopted by the Brazilian program.

Table 4, below, displays suggestions as from performed analysis and suggestions from interviewees aiming to collaborate to application process evolution as a mechanism.

Table 4 - Suggestions for application process

Start-Up Brazil	Start-Up Chile
<ul style="list-style-type: none"> <li>- Profile Test at the program website to help entrepreneurs understand the kind of accelerator they need.</li> <li>- Send to startups the accelerators partner projects, as they receive startups ones.</li> <li>- Entrepreneurs could talk to graduated startups from accelerator partner that they are prospecting to have a better understand about them.</li> <li>- Projects and activities in conjunction with universities could be used as a criterion at accelerators and startups evaluation's, earning extra points and bringing consistency to these projects.</li> </ul>	<ul style="list-style-type: none"> <li>- Reduce startups selected number to focus on support offered quality, customizing the acceleration process and raising the program status as truly directed to high-potential entrepreneurs.</li> </ul>

Source: Elaborated by the authors (2018).

#### 4.3 SEED CAPITAL AND EQUITY EXCHANGE

Seed investment was widely highlighted in both programs as a decisive factor for the accomplishment of startups - without it many businesses would not have even left the paper.

Even among entrepreneurs who realize other feasibility forms, the programs' investments enabled them launching more mature products on the market supported by stronger teams, what increased their chances of marketing success and of new investments uptake. Flexibility in using resources was identified as an essential factor for the progress of projects, since it is difficult for startups to predict what will be their future needs in detail.

Regarding the amount, the difference is significant, is around \$ 60,000 offered by Start-Up Brazil for each company and \$ 30,000 by Start-Up Chile. The programs also differ in respect to equity exchange, despite Start-Up Brazil for itself does not stick to any share, the program allows out accelerator partners to do that within the 20% limit in exchange for at least 6 thousand U.S. dollars of additional investment plus provided services. This is the way that accelerator partners are remunerated, enabling the Brazilian model.

Unlike, Start-Up Chile has no exchange for its investment or services. Because do not asking shareholding, Chilean program facilitates startups in future trades with investors, an important factor for these companies' survival after acceleration, but forgoes a partnership model between public and private sectors which could facilitate the insertion of these new companies into the market and strengthen the sector.

During interviews with Brazilian participants' program, entrepreneurs expressed needing support of program's team to balance their trading with accelerator partners (amount of extra investment versus shares), because they understand that accelerators have more power than should be appropriate, since without a partner accelerating the startup cannot join the program being dismissed, while accelerator partners could find another startup. In reply, the Start-Up Brazil team says understand this negotiation as a private contract between accelerator and startup, not fitting her to interfere. Regarding these points, it is understood that the program's team presence as a mediator could strengthen the dynamics between these three parties: startup, accelerator and program. As the acceleration process includes program staff, being carried out by interaction between these three agents and not just between startup and accelerator partner, this support could prevent future conflicts.

Bureaucracy of this mechanism appears as the biggest difficulty faced by entrepreneurs of both programs in general. However, despite of negative manifestations issued by entrepreneurs, the representatives interviewed of both programs report that the bureaucracy is appropriate because are public initiatives. Are notorious challenges to be faced by the teams of programs for improvements in this regard, since the needs in relation to

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bureaucracy between federal governments and technology entrepreneurs are antagonistic: the first need to verify the correct implementation of public investment, while the second need simplicity and flexibility. However, it is believed that the same entrepreneurial and innovative spirit from managers who have made possible the onset of such programs within the public administration could motivate them to face of the aspects that are not very efficient.

In the Brazilian program, specifically, investment is operationalized through research grants paid directly to each member of the startup team, including the partners, according to each one qualifications. Therefore, the amount that each startup will pick up with the government depends on the evaluation of each employee's curriculum through criteria that are usually used to evaluate researchers. This system allows great freedom in resources' use and avoids the taxation thereof, these being the main reasons for its adoption by the program. However, once startups' members receive more or less money according to their qualification as a researcher, which are often not the same characteristics important at startups every days that becomes a complicating factor to them.

Table 5 displays suggestions as from performed analysis and suggestions from interviewees aiming to collaborate to seed capital and equity exchange evolution as mechanisms.

Table 5 - Suggestions for seed capital and equity exchange

Start-Up Brazil	Start-Up Chile
<ul style="list-style-type: none"> <li>- Improving information quality about requirements for receiving the investment, especially during the selection process.</li> <li>- Establishing requirements regarding startups' teams adapted to this kind of company characteristics, or create a new way to operationalize access to financial resources.</li> <li>- Facilitate startups' access to additional credit lines - important for hardware startups.</li> </ul>	Ease the bureaucracy required for reimbursement.

Source: Prepared by authors (2018).

#### 4.4 MENTORSHIP AND QUALIFICATION

The mechanism of mentorship and qualification comprises the activities of mentoring, workshops, talks and courses. In the Start-Up Chile, in addition to these there are Platoons, which are weekly meetings for exchanges between entrepreneurs. In this mechanism, the main difference between the programs is about the monitoring of business evolution and

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decision-making processes. At Start-Up Brazil, if the partnership between startups and accelerators is well settled, mentorship occurs through constant interactions with mentors and accelerator's team. At Start-Up Chile are the pairs that validate each other trajectories followed, not so close, by the program's team. Mentoring with experienced market professionals, takes place in both programs by demand to support specific issues.

The main criticisms of the Start-Up Chile are related to difficulties in obtaining easy access to mentorship of good quality. Learning among peers is highly valued by entrepreneurs who go through the program, but this does not mean that it completely fulfills the need for validation by people with more experience and credibility in the segment. This specialized validation is possible in the program, but entrepreneurs need to engage on these requests been difficult get them in a systematic way. Was also declared by some Start-Up Brazil entrepreneurs having an expectation about mentors and key people's presence at startups daily life, but at Brazilian case this kind of interaction varies greatly from one accelerator to the next.

It is noticed that Start-Up Brazil's format with accelerator partners' presence approaches startups to their markets and bring some security to entrepreneurs, influencing mainly what concerns the business management and opening doors with investors. Monitoring of experienced professionals from accelerator partners contributing to the success of the business increases entrepreneurs' security. While Start-Up Chile is more focused on promoting a great creative stimulus and cultural exchange environment. The main Chilean tonic is the combination of peer learning and community development among entrepreneurs. Exchanges between them continue to happen even with acceleration cycle end and subsequent return of most entrepreneurs to their original markets. Participants have declared consider the acceleration companions as footholds who can always count on.

The workshops of activities, courses, talks and the like are related to learning techniques and methodologies, happening in both programs in the same way. They add specific knowledge to improve the management capacity of entrepreneurs, the qualification of startups and expand their network with contacts from related areas. At Start-Up Chile, entrepreneurs are also assuming the role of instructors, bringing them a self-confidence gain, but not always resulting in depth content.

Table 6, below, displays suggestions as from performed analysis and suggestions from interviewees aiming to collaborate to mentorship and qualification evolution as mechanisms.

Table 6 - Suggestions for mentorship and qualification

Start-Up Brazil	Start-Up Chile
<ul style="list-style-type: none"> <li>- Provide and accomplish plans and schedules by accelerator partners</li> <li>- Promoting an early stage, with all entrepreneurs in one place for 30 days.</li> <li>- Providing online training with virtual forum for exchange of ideas among entrepreneurs.</li> </ul>	<ul style="list-style-type: none"> <li>- Providing continuous access to experienced mentors.</li> <li>- Investing at joint projects with universities could contribute.</li> <li>- Conducting a rotation between Platoons' components to make them more dynamic and stimulating meetings.</li> <li>- Broadcasting live the workshops with speakers of most reputation.</li> </ul>

Source: Prepared by authors (2018).

#### 4.5 NETWORK AND BENEFITS

Both programs work similarly about this mechanism. Providing benefits through partner companies, creating events and promoting network. Benefits in the form of agreements with partners, especially servers and cloud systems, mean sparing at operational costs and allow use of higher quality services than startups could afford. Disclosures obtained through programs' press offices is also seen as an important advantage, because it helps companies to be known and enjoy credibility in the market due to endorsement of the programs.

The events organized for investors expand visibility, networking opportunities and the possibility of new funding. This approach is very important for startup's development since they do not always manage to continue their projects after acceleration cycle without a round of investment. Have been extolled by participants of Start-Up Brazil their presence in events and fairs, especially international ones, as significant to expand their horizons. At Start-Up Chile, events with local community starred by program's participants are mandatory work. They have as main objective to disseminate the culture of dynamic entrepreneurship among the Chilean people and add especial experience for those who want to develop business in the country.

Besides networking increased in events, both programs, in Brazil through accelerator partners, promote their contact networks that include investors, notorious people in startups segment, potential customers (depending on startup's segment) and future members for their teams, using their credibility as attractive. At Start-Up Chile, the main emphasis lies on the accelerated community: its potential for support and development of partnerships between

entrepreneurs from different areas, cultures, markets and regions. The network among entrepreneurs from different countries was often highlighted, by respondents, as one of the largest, if not the largest program's contribution to their business development. In addition, program entrepreneurs are used as mentors for startups with more inchoate projects outside the program, expanding the network of contacts and Chilean entrepreneurs' potential. At Start-Up Brazil this network opens doors especially with the key people at local market that have potential to develop business and make constructive suggestions to startups. In general, the Brazilian ecosystem was strengthened, having survived the economic crises and the lack of new rounds of acceleration (whole year of 2015 and 1st half of 2016).

Table 7 displays suggestions as from performed analysis and suggestions from interviewees aiming to collaborate to network and benefits evolution as mechanisms.

Table 7 - Suggestions for network and benefits

Start-Up Brazil	Start-Up Chile
<ul style="list-style-type: none"> <li>- Engaging universities in program events, bringing ideas related to cutting-edge research in the country.</li> <li>- Establish partnerships with research programs to support systematically Start-Up Brazil development.</li> <li>- Promoting touchpoints to improve interaction among startups. Attempts are known to have been carried out, but this should not be abandoned.</li> </ul>	<ul style="list-style-type: none"> <li>- Intensify relationship with private accelerators that have emerged in Chile as a way to strengthen the ecosystem.</li> <li>- Providing more information about the benefits offered by the program through a guide suggesting uses.</li> <li>- Increased startups relations with program's network facilitating business partnerships and encouraging startups to create ties and settle in the country, not living as expats.</li> </ul>

Source: Prepared by authors (2018).

#### 4.6 MONITORING AND ACCOUNTABILITY

Systematic monitoring and accountability are mechanisms that support their evolution by requiring work control by entrepreneurs and systematization of their own decisions in order to share this information at both programs. Setting goals is an important component of the monitoring mechanism, but its compliance is not decisive in follow-up meetings, except in cases where entrepreneurs clearly do not have demonstrated any commitment. Normally, programs teams do not interfere in the operation of startups or apply to them sanctions such as program's disconnection, just in extraordinary cases. At Start-Up Brazil, although it is not very common, depending on the understanding of the accelerator partner, there may be startup's exclusion because of low performance.

Routine monitoring and accountability facilitate problems mapping, solutions planning

and work prioritization, very important activities at startups once they have limited resources. Scalability is a prerequisite for the success of these endeavors, so, fix issues at early stage saves entrepreneurs of higher consequences in the future. Teams of both programs were praised by entrepreneurs due to the commitment to support them, flexibility beyond expectations and reiterated technical capacity demonstrations. About Start-Up Brazil, was positively emphasized the evaluation methodology from the program team, that situates the entrepreneur in relation to the market and suggests ideas for next steps. About Start-Up Chile the positive highlight was the big autonomy given to entrepreneurs to set goals and operating ways. Already the accountability of the resources received is seen as an important tool for the maintenance of programs with governments than for startups' growth.

Table 8, below, displays suggestions as from performed analysis and suggestions from interviewees aiming to collaborate to monitoring and accountability evolution as mechanisms.

Table 8 - Suggestions for monitoring and accountability

Start-Up Brazil	Start-Up Chile
<ul style="list-style-type: none"> <li>- Formal and systematic monitoring of accelerator partner used as part of future application processes.</li> <li>- Improving monitoring of accelerator partners by program team.</li> <li>- Alignment meeting between these three agents: startup, and accelerator program.</li> </ul>	<ul style="list-style-type: none"> <li>- Intensify monitoring frequency.</li> <li>- Becoming the monitor presence more frequent at startups operation.</li> </ul>

Source: Prepared by authors (2018).

## 5 CONCLUDING REMARKS

To understand the influence of the mechanisms of acceleration of the Start-Up Brazil and Start-Up Chile on businesses that were part of the programs was used an ample approach that brought together different agents' understanding in each case. It was noticed that the programs use very similar acceleration mechanisms and that they are aligned with those found in the literature review as the most used by accelerators: application process, seed capital, benefits that bring savings in operating costs, mentoring, training activities and network including investors.

The main similarity between programs are the acceleration mechanisms that they use. The main difference is related to the origin of most entrepreneurs who are foreigners in Chile and natives in Brazil. Additionally it is possible to mention that there are some differences between both programs: Brazilian partnership with accelerator. Chilean centralized process

based program in Santiago and pulverization in Brazil; relationship activities with the Chilean community; amount of seed capital that reaches to double in the Brazilian program; the nearness of mentors in the Brazilian program; Chilean program brings community power and the largest number of companies supported at Start-up Chile 1,100 versus 183 in Brazilian program.

The suggestions, resulted from reanalyzes and investigations carried out and which is believed to have potential to contribute to programs' progress are related in tables within each category of analysis. At Start-Up Brazil stands out the largest monitoring of startups, which is conducted mostly by accelerator partners. In Brazilian program is needed an improvement at relations with research institutions, promotion of the community of former participating entrepreneurs and expand the information availability to better structure the partnerships between accelerators and startups in the application process. Already Start-Up Chile has great strength at its relationships network development, great potential for development through mentoring and monitoring processes improvement and narrowing ties with the private acceleration market in the country. Added to these suggestions, bureaucratic process improvement in both programs. Although Start-Up Brazil and Start-Up Chile are ahead of other public programs in this regard according to entrepreneurs and programs' teams, cater to bureaucratic requirements properly was cited recurrently as a major negative factor.

The startup ecosystem is important for the development of dynamic entrepreneurship in Brazil and Chile. It was observed at the entrepreneurs the aim of take advantage of opportunities arising from technological acceleration of the sectors in which they operate, either with completely new ideas development, either with existing products adaptation. Brazil and Chile manifested in their policies the objectives of increasing competitive production, qualifying the workforce and take advantage of the economic growth provided by technological development as in the highly industrialized countries. The programs analyzed in this article are part of betting in this direction, with much greater boldness in the case of Chile, especially if one considers the difference in the economic dimension of the two countries. In order for these companies can fully develop the projects that intend, being able to lead to the ecosystems where they are installed a economic dynamism expected from its innovative proposal, it must be afforded the necessary conditions. These conditions are beyond the incentives from a government, they depend on the production system context on that country

that is a result of its history.

In Brazil, taking into account its economic dimension and the positive status that entrepreneurship enjoys among its inhabitants, being considered a prestigious alternative to professional career and economic life. The incentive of only 183 startups all over the country, even for a program at an early stage of development, is a small amount evidently. Order for the program shows relevance and actually contribute to the expansion of dynamic entrepreneurship of the country, to influence positively the renewal of market and innovation development, as indicated at its goals, it is necessary for country's startups segment being taken into account as a whole and fostered as a broad public policy. Other issues that clutter the dynamic entrepreneurship in the country, and cannot be mentioned, are the hardships at handling bureaucracy and with a heavy tax burden, points widely mentioned by entrepreneurs.

In addition to supporting a larger number of companies through an intensive program like Start-up Brazil, also must be supported those who have not gone through this very restricted selection process. Startups that are not in a stage as advanced as required and tech business that do not specifically fall within the parameters defined for this program also need more fostering incentives. One must think of public policies to encourage the dynamic entrepreneurship broader and more inclusive in order for the country's vast entrepreneurial potential not be wasted in areas with potential talents capable to renew and develop markets. Despite program's intrinsic value and the effective contributions received by its participants, when evaluating their weight in regarding the challenges faced by the country to advance socially and economically and also Start-Up Brazil contribution to further development of dynamic entrepreneurship segment, it ends performing as too timid initiative.

In Chile, the program has its merits in the promotion of dynamic entrepreneurship among the population and international promotion of the country, its main objectives. The Chilean entrepreneurs' participation in the program is growing, which could indicate the advancement of entrepreneurial culture in the country. However, it has harsh criticism for using the country's resources to fund entrepreneurs mostly foreigners who soon after his acceleration cycle leave the country without having affected its economy. To address this issue of low retention of talent has created a program for the next phase, the Start-Up Chile Scale (<http://startupchile.org/about/scale/>), aiming to establish startups in the country and not only accelerates them.

The country is the first among Latin Americans at Global Entrepreneurship Index 2015 (ÁCS et al., 2016) and at the dynamic entrepreneurship ranking, ICSEd-Prodem 2015 (KANTIS et al., 2015). Indicating that demonstrate good efforts made in favor of the improvement of its economy. However much the program's marketing presents this universe to people encourages its participation and its participant's appreciation helps to raise the status of the entire entrepreneurial ecosystem around it. Disseminating entrepreneurial culture is an issue that ends up being a challenge that goes far beyond a startups acceleration program. The program contributes through its community connection points, but if its Chilean government place it in the country's core, will be must go further and focus on broader public policies, especially in the education sector and definition of priority sectors in accordance with national interests to further development.

As conclusion, this article aims to contribute to the analyzed programs' evolution, contribute for studies dealing with dynamic entrepreneurship fostering as an economic and social development tool and for studies of dynamic entrepreneurship in emerging markets. It also aims to be part of knowledge about effectiveness of startups acceleration programs, despite the limitations that the case study methodology brings.

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