

ARTICLE

Critical modernity, creative thinking, and innovation: startups in Brazil

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Abstract

This study aims to understand the criteria that influence the decision-making process of selecting startups that have innovated successfully. In this article, this kind of selection was made by venture capital enterprises. We studied the view of the investors, venture capital professionals, and startup entrepreneurs interviewed. We present the actual global characteristics of the main cities where innovation takes place and the modernism and critical modernism aspects and creative thinking beliefs (Einstein, Habermas). The qualitative research was carried out using an exploratory approach and case study methodology based on semi-structured interviews (nine in total) with professionals from venture capital funds, startup entrepreneurs, and investors. The interviews confirmed several relationships between theories found in the business management literature. Findings such as post-bureaucratic environments (Heckscher), Mintzberg’s (1995) Adhocracy, and Simon’s decision-making process (1987) for pattern recognition were corroborated by the analysis of the interviews. We present some initiatives for innovation such as Station F in France, El Espacio La Nave, Madrid, the Project Porto Maravilha in Rio, and Vila Olímpia e Paulista avenue, São Paulo.

Keywords: Innovation. Startups. Venture capital. Creative thinking. Critical modernism.

Modernidade crítica, pensamento criativo e inovação: um estudo sobre as startups no Brasil

Resumo

O objetivo principal do presente estudo é entender quais critérios influenciam o processo decisório de seleção das melhores startups em inovação por um fundo de *venture capital*, na visão dos investidores, profissionais de fundos de *venture capital* e empreendedores de startups entrevistados. Apresentamos algumas ideias sobre as características das principais cidades que promovem inovação e os ideais do modernismo e do modernismo crítico (Habermas) e do pensamento criativo (Einstein). As entrevistas confirmaram diversas relações entre as hipóteses encontradas na literatura sobre teoria organizacional. Achados como os ambientes pós-burocráticos (Heckscher) e a proposta de adhocracia de Mintzberg (1995), assim como a Teoria da Escolha Racional de Herbert Simon (1987) e seus estudos sobre o processo decisório nas organizações pelo reconhecimento de padrões cognitivos pelos decisores, foram corroborados pela análise das entrevistas. Foram elaboradas entrevistas semiestruturadas (nove, no total) com profissionais de fundos de *venture capital*, empreendedores de startups e investidores com alguma experiência no mercado em questão. A importância do tema resiliência organizacional também foi ressaltada, e, no fim, sugere-se o estudo sobre a abertura de novos espaços de criação de startups e inovação, como a Station F, em Paris, França, o espaço La Nave, em Madri, e o projeto Porto Maravilha, no Rio, e de centros urbanos de inovação, como a Vila Olímpia e a Avenida Paulista, em São Paulo.

Palavras-chave: Inovação. Startups. Venture capital. Modernismo crítico. Pensamento criativo.

Modernidad crítica, pensamiento creativo e innovación: startups en Brasil

Resumen

El objetivo principal del presente estudio es comprender cuáles son los criterios que influyen en el proceso de toma de decisiones de selección de las mejores startups en innovación por parte de un fondo de capital de riesgo, a juicio de los inversores, profesionales de fondos de capital de riesgo y emprendedores de startups entrevistados. Presentamos algunas ideas sobre las características de las principales ciudades que promueven la innovación y los principios del modernismo, del modernismo crítico (Habermas) y del pensamiento creativo (Einstein). Las entrevistas confirmaron varias relaciones entre las hipótesis encontradas en la literatura sobre teoría organizacional. A través del análisis de las entrevistas, se corroboraron hallazgos como los entornos posburocráticos (Heckscher) y la propuesta de adhocracia de Mintzberg (1995), así como la teoría de la elección racional de Herbert Simon (1987) y sus estudios sobre el proceso de toma de decisiones en las organizaciones a través del reconocimiento de patrones cognitivos por parte de los decisores. También se destacó la importancia del tema de la resiliencia organizacional. Finalmente, se sugiere estudiar la apertura de nuevos espacios para la creación de startups e innovación, como la Station F, en París, el espacio La Nave en Madrid, el proyecto Porto Maravilha, en Río de Janeiro, y de centros urbanos de innovación como Vila Olímpia y Avenida Paulista, en São Paulo.

Palabras clave: Innovación. Startups. Capital de riesgo. Modernismo crítico. Pensamiento creativo.

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INTRODUCTION

This study sought to understand the criteria that influence a venture capital fund's decision-making to invest in startups, focusing on creative and innovative thinking. The question guiding the research was: considering the perspective of investors, professionals from venture capital funds, and startup entrepreneurs, which criteria influence the decision-making of a venture capital fund that invested in startups that achieved success based on value-added product innovation (demonstrating creative and innovative thinking)?

The exploratory and qualitative research focused on creative and innovative thinking abilities and was conducted through nine semi-structured interviews with experienced investors, professionals from venture capital funds, and startup entrepreneurs.

Concepts such as creative thinking, post-bureaucratic environments, Mintzberg's (1995) adhocracy, and Simon's (1987) decision-making process by pattern recognition, were corroborated by the analysis of the interviews.

The following sections present the current global scenario of innovation and the literature review.

THE GLOBAL ENVIRONMENT AND CRITICAL MODERNITY: ANALYTICAL AND INNOVATIVE THINKING IN TODAY'S SOCIETY

This section presents the scenario of innovation that emerged in modernity in some cities worldwide where innovation currently occurs. In the chapter "In the forest of symbols: some notes on modernism in New York," published in the book "All that is solid melts into air," Berman (2001) talks about modernism in the city of New York in the architecture and in the people's customs. For the author, this city first inspired, in the 1950s, the heyday of the modernist urge to build and renovate, innovating mainly in architecture, as shown in the work of Robert Moses. In a second moment, in the 1960s, New York manifests the modernist desire to innovate in customs through the desire of the alternative population to integrate, at the time, the hippies – pacifists who asked for peaceful attitudes and questioned the authoritarian order in place. Street art, theatre, music festivals, and rock music inspired this period of social innovation. Street modernism conveys the thought of social innovation of the time, of how family and friends coexist with urban space and the street. Marshall Berman describes:

Interwoven with these known and friendly faces, there are hundreds of strangers passing through: housewives with baby carriages, teenagers gossiping and comparing their hair, young secretaries and elegant middle-aged couples on their way to work, workers coming off the night shift and stopping by the corner bar. Jacobs contemplates and enjoys them all: she experiences and evokes what Baudelaire called the "universal communion" available to the man or woman who knows how to "take a bath of multitude" (Berman, 2001, p. 299).

Berman further points out that in this way, in modernity and the social innovation that comes with it, the ideal street is made up of passing strangers, people from many different classes, ages, ethnic groups, beliefs, and different lifestyles. The ideal family is one in which women also go out to work; men also stay at home in addition to working, and parents work close to home; children can develop in a world where there are two genders (male and female), and where work plays a key role in everyday life.

Cities such as Paris – Haussmann, nineteenth century – London, New York, Rio de Janeiro, and São Paulo underwent this dynamic of social innovation (Berman, 2001, p. 299). To show this innovative and hopeful spirit, the author emphasizes the importance of all races, creeds, and colors working together to keep a free world. In this way, Berman shows, American societies in the 1970s learned that ethnic and cultural identity – not just their own, but that of everyone – is essential to the depth and fullness that modern life provides and promises to all people, especially to families. Thus, in addition to differences, one must consider what human beings have in common, universally: human rights and being a citizen of a country and planet Earth.

Thus, Habermas's critical modernity (1970) also seeks to reconstruct the value of human rationality in a new form of the order proposed by democracy. This dynamic reflects an embryo of the theory of communicative action, which deals with intersubjective communication between different individuals and groups to reconstruct the dialogue between different groups, previously seen as incompatible – as is the case of the dialogue between the conservative sectors and “alternative” societies. Enabling this dialogue is also a social innovation. Modern art represents a universal manifestation of human rationality and sensitivity, in addition to other innovative art demonstrations, also represented in the Louvre Museum in France, where everyone can see the universal character of art.

Berman (2001, p. 130) shows that “if the reasoning of the book is correct, those who are waiting for the end of modernism will have to wait forever, especially critical modernism, which must last” (Habermas, 1970). In other words, the ideals of the French Revolution and the Enlightenment –human rationality and democratic communication – will be resumed, albeit with changes.

As Berman (2001) shows, the concern in the 1970s was to “bring all back home.” It is about giving value again to the home, to the space where the family, a cell of love and protection, in ideal terms, is found. In this sense, in a broader dimension, it is important to preserve the environment so that we all always feel at home on planet Earth. This concern for the environment and the planet leads to creative thinking and sustainable technological innovation and unites everyone above differences.

In the same decade, the search for meaning is also represented by collaborative work. In New York, Broadway is where “an intricate ballet in which the individual dancers and ensembles all have distinctive parts which miraculously reinforce each other and compose an orderly whole” (Berman, 2001, p. 318).

In today's companies and nonprofits, trust and authenticity are essential characteristics in a substantive and Habermasian dialogue.

MODERNISM, CRITICAL MODERNISM, AND POST-MODERNISM

The article by Burrell and Cooper (1988), “Modernism, postmodernism, and organizational analysis: an introduction,” shows the following aspects of these movements:

Modernismo is that moment when man invented himself; when he no longer saw himself as a reflection of God or Nature. Its historical source lies in the eighteenth-century philosophy of the Enlightenment which chose Reason as the highest of human attributes. Reason, according to Kant, is when we think for ourselves and cease depending on an external authority to make up our minds for us; it thus implies a critical sense in which we have both to develop our powers of rational discrimination and have the courage to express them when appropriate; Aude sapere, said Kant: ‘dare to know’ (Burrell & Cooper, 1988, p. 94).

The French philosopher René Decartes (2005), stressed the importance of human rationality in his famous phrase: “I think, therefore I am” (*Cogito ergo sum*).

In terms of social innovation, the Napoleonic period in France consolidated the ideals of the Enlightenment and the modernist project through the French Revolution, the recognition of the human's rational ideals, and the view of humans as universal citizens, with human rights above the differences. In the legal code created at that time by Napoleon Bonaparte, these values of equality, fraternity, and freedom were also manifested by the emergence of the Labor Court, the *Conseils de Prud'hommes*, which was a legal model that would later be adopted in Brazil both by the Civil Code and by the Labor Courts, until the reform of the Civil Code in the twenty-first century. At the time of the French Revolution, the idea of meritocracy was established, a great social innovation for the time. It attributes value to individuals' talent and ability, regardless of their birth privileges and relationships, which supports the idea of bureaucracy and equal opportunities for all.

As we have already seen, Habermas (1970), a famous author of critical modernism in the twentieth century, believes that the ideals of the Enlightenment and the French Revolution must be preserved and proposes that the modernist project still has hope of becoming a reality as long as the “good parts” of the modernism project, which give value to human rationality, are redirected to the construction of a better future, after critical analysis and the formulation of new proposals (Motta & Vasconcelos, 2021, p. 554, our translation).

Alvesson (1987, in Motta & Vasconcelos, 2021) argues that intellectuals are in charge of producing an enlightened understanding that educates people with a critical sense and capacity for analysis, which includes people from different segments in the social dialogue for the production of a better future for everyone.

Current social innovation also seeks to re-establish the dialogue between the so-called conservative and “alternative” sectors, which are apparently incompatible. Critical modernism only values rationality, without religious belief, maintaining the ideals of the Enlightenment and updating them, redirecting it to a greater hope in human rationality. However, also in the twentieth century, scientists such as Carl Sagan emerge, proposing that religious belief and being a scientist are not incompatible values. Einstein thought the same way, reconciling faith and science. Einstein had a cosmic conception of God as an entity, positive energy, or positive force that would not be incompatible with scientific reasoning and the search for scientific truth. He stressed that this belief was not a religion practiced in churches but a personal faith in a positive force or energy, a cosmic entity. According to Einstein, in his book “The world how I see it”:

The individual feels the nothingness of human desires and aims and the sublimity and marvelous order which reveal themselves both in nature and in the world of thought. [...] I maintain that cosmic religious feeling is the strongest and noblest incitement to scientific research. Only those who realize the immense efforts and, above all, the devotion which pioneer work in theoretical science demands, can grasp the strength of the emotion out of which alone such work, remote as it is from the immediate realities of life, can issue (Einstein, 1953, pp. 21-23).

Thus, it is expected that an innovation that will become a reality in the future seems only theoretical in the present.

The idea of critical modernity is that conciliation and dialogue between the traditional aspects of knowledge, family, and home are also possible with minority segments of society and scientific knowledge in the name of a greater good, the future of the planet and humanity so that they can unite different forms of “traditional” and “alternative” knowledge, enabling dialogue between these aspects.

Thus, regarding social innovation and dialogue, Carl Sagan (2018), in his article “Religion and science: an alliance,” describes that, in 1990, a joint appeal was made between scientific associations and various entities and organizations of Christian, Jewish, Buddhist, and Hindu religions, among others, for environmental protection and a joint manifesto entitled “Preserving and Cherishing the Earth: An Appeal for Joint Commitment in Science and Religion” was launched. Pope John Paul II had previously encouraged advances in cooperation between science and religion to overcome the misunderstandings of historical disputes between these two spheres of knowledge.

Despite the difficulties, the conferences for the protection of the environment in Paris (2017) and in Glasgow, Scotland (2021), in addition to the ECO 92, in Rio de Janeiro, sought a commitment to creating social and scientific innovations to preserve the planet.

Anthony Giddens (1990) shows that even today, despite postmodern discussions, modernity and critical modernity predominate, and we live in a period of “high modernity,” in which the consequences of modernity (and critical modernity) are progressively more universal than ever before.

Against this backdrop, this study will address the issues of innovation, startups, and the importance of creative and innovative thinking (Einstein, 1953).

THE PROBLEM RESEARCHED

This study addresses the problem of understanding the criteria that influence a venture capital fund's decision-making to invest in startups that achieved success based on value-added product innovation (demonstrating creative and innovative thinking).

The interviews sought to obtain the perspective of investors, professionals from venture capital funds, and startup entrepreneurs (called here "young innovators").

THEORETICAL FRAMEWORK

Next, we will define the main concepts used in this work.

Startups

Startups are companies created to grow quickly (Graham, 2012). It is a type of human institution designed to create products and services under extreme uncertainty (Ries, 2012), an organization that adopts a scalable, repetitive, and profitable business model and seeks viability through venture capital funds (Ries, 2012). Blank & Dorf, 2014).

Venture capital

Venture capital is a form of equity financing where a fund invests in new and high-risk companies that do not have many tangible assets and face difficulty obtaining credit. This type of investment consists of acquiring the companies' shares or other securities (convertible debentures, subscription bonuses, among others), considering its potential growth and profitability. The investors expect to obtain significant capital gains in the medium and long term.

Design thinking

Glen, Suci, and Baughn (2014) state: "Design thinking is an iterative, exploratory process involving visualizing, experimenting, creating, and prototyping of models, and gathering feedback. It is a particularly apt method for addressing innovation and messy, ill-structured situations."

Design thinking is widely used in creating and developing the idea behind a startup and an innovative product.

Trust

The term trust in the economic sphere is significantly relevant. According to Zanini (2016):

Trust may increase the efficiency of transactions within organizations as an informal coordination mechanism. When there are relationships of trust between people, the probability of exchanges and information sharing is higher, conflicts are reduced, and satisfaction and general motivation increase (Zanini, 2016, p. 71, our translation).

Heckscher and Donnellon (1994) show that the consensus of social regulation in this type of post-bureaucratic organization is based on trust through the recognition of the high technical capacity of team coordinators and co-workers. When there is disagreement, the team coordinator is responsible for the final decision and must arbitrate the best solution. Although there are conflicts of ideas, conflicts between people do not necessarily occur, as shown in the concept of adhocracy (Mintzberg, 1995).

Adhocracy

According to Mintzberg (1995), the adhocratic structure is conducive to innovation in organizations. Professionals with diverse skills and knowledge are hired and trained in programs organized by the company to gain power and contribute to innovation, encouraging unity and good relationships.

Herbert Simon's decision theory – portrayed in the study by Motta and Vasconcelos (2021) – argues that human beings have the intelligence – and also find support in experiences, especially professional experiences – to decide quickly by recognizing known and working patterns that generate insight. Simon also created the theory of bounded rationality, which recognizes that although human beings make satisfactory decisions, they do not make “optimal” decisions, as human cognition is also influenced by emotions, politics, attitudes, and information present at the time of decision.

METHODOLOGY

This exploratory research offers a qualitative case study using ethnographic techniques, a process that requires semi-structured interviews, documentary analysis of primary and secondary sources, and participatory observation (Yin, 2015). There are no a priori hypotheses because, according to Vergara (2006), exploratory research does not admit the formalization of hypotheses or assumptions, although the researcher may have an intuition regarding the answer to the problem.

It is a phenomenologically based subject-to-subject research built on an interpretative basis. Therefore, even if seeking potential impartiality and neutrality, there is a risk of bias in interpreting the data, which means that results cannot be generalized. In this case, the research generates a typology. The anonymity of respondents and companies will be maintained, along with data confidentiality.

The research collected the main data from in-depth interviews with investors, professionals from venture capital funds, and startup entrepreneurs. The interviews were conducted and recorded with nine people between June 25 and August 06, 2020. Three investors, two professionals from venture capital funds, and four startup entrepreneurs were interviewed. Documentary analysis was carried out with primary and secondary sources.

Box 1 shows the interviewees' profiles.

Box 1
Data from Interviewees

Interviewee	Sex	Age	Type of interview	Background	Education level	Company/ Occupation	Duration (in minutes)
I 1	M	31	Zoom	Information systems	Undergraduate	Cherne	37
I 2	M	28	Zoom	Economics	Undergraduate	Marlin	32
I 3	M	43	Zoom	Computer science	Undergraduate	Barracuda	14
I 4	M	56	Zoom	Law	Undergraduate	Investor	69
I 5	M	49	Zoom	Production engineering	Master	Investor	16
I 6	M	37	Zoom	Economics	Master	Pargo	19
I 7	M	43	Zoom	Economics	Master	Robalo	36
I 8	M	64	Zoom	Economics	Master	Investor	42
I 9	M	28	Zoom	Economics	Undergraduate	Atum	24

Source: Elaborated by the authors.

After some questions related to the interviewee's profile, the interview addressed the research problem. The selection of interviewees considered participants with recognized ability in their field in Brazil, known for managing their ventures efficiently, innovating successfully, and for knowing startups and how they operate. These elements suggest that the interviewees could contribute to increasing the understanding of the criteria that lead the startups to be successful in Brazil.

The interview script was conducted so the interviewees could freely report their experience regarding the process of investment in startups.

VENTURE CAPITAL FUNDS

Marlin Fund

Fundo Marlin was created by an executive with extensive experience in large companies and three other partners. Its activities are investment fund and accelerator, to invest in small innovative companies that want to operate in the national and international market. The Marlin Fund is focused on companies seeking between BRL 200,000 and BRL 3 million. In addition to capital, the fund offers experience and networking, which are essential for a sustainable organization.

Every week, the founder and partners analyze, on average, 15 startups. They do not receive wages, keeping the fund's costs down. "We don't have wages; we will only make money if the companies succeed," said the founder. The selection is rigorous to reduce the risks. The Marlin Fund reviews dozens of business plans every week. A close analysis reveals that one in every hundred investees generates a profit.

For the founder, small and medium-sized companies play a fundamental role in the growth of the country's economy and are essential to reduce poverty and inequality.

"More than providing capital, we seek to generate a positive impact on society," he says.

Barracuda Fund

The Barracuda Fund is a venture capital fund focused on internet companies. It is the first and only fund with offices in the US (Silicon Valley) and Brazil (São Paulo). The office in São Paulo has been operating since 2012. The fund's objective is to provide entrepreneurs with capital, know-how, and network to create and grow the next successful Internet businesses in Latin America. The work is done with the help of several partner funds in Silicon Valley and a global network of partner funds in China, Russia, Germany, and Japan. The fund aims to become a venture capital leader and help develop Brazil's technology entrepreneurship ecosystem. With its operations in Brazil, the Barracuda Fund has become one of the main venture capital funds in the country, and one of the most valued since its investment portfolio includes successful startups and even a unicorn (a startup valued at over 1 billion dollars).

Even with a focus on internet companies, the fund actively seeks companies in the areas of finance, education, software, legal, real estate, and retail.

The fund seeks startups from the initial stage to stage C (growth phase). Capital is important, and entrepreneurs often get funding. However, they must assess where the money comes from. Therefore, the fund offers its partners' expertise to help the company have, in addition to capital, conditions to overcome difficulties and prosper. One of the partners says: "We always want to help companies become unicorns."

Another partner distinguishes three pillars the fund analyzes: "[...] quality of the team, size of the market to justify the investment, and what is the product created or problem addressed."

STARTUPS

Startup Cherne

Between 2011 and 2012, when the credit supply boom in Brazil started to lead people to debt and default, the founders of the startup Cherne observed that Brazilians needed help to organize their personal finances. The startup was addressing this problem and already had a desktop interface. In 2014, it launched the first version of its application to serve mobile devices.

Cherne offers free software for people to easily organize their finances and make better decisions with their money. Users can plan their personal finances, set goals, and view their banking transactions in one place. By connecting bank accounts, the application automatically recognizes, categorizes, and organizes information regarding spending and investments. It is also possible to edit and add transactions manually (for cash expenditures, for example), set savings goals, and receive alerts if something goes off-plan.

As it depends on synchronization with bank data, a great initial challenge for the founders was to gain user trust. Security has always been one of the main focuses of attention – data is encrypted, only the account owner has access to it, and it is impossible to carry out any transaction through the platform. Company data estimate that the savings made by those who use the application exceeded BRL 200 million in 2015.

Startup Pargo

Startup Pargo is a company specializing in electronic payment methods that develops flexible products adapted to the demands of each sector. Founded in 2015, it started as a payments sub-acquirer – it processed its transactions through the platform of other acquirers. The company began by offering customized solutions for small retailers and providing services such as white labeling (without exposing its brand) to other companies that wanted to offer accreditation to their customers. In 2018, a public consultation of the Central Bank of Brazil sought to give the status of accreditor to companies that transact more than BRL 500 million a year. Thus, startup Pargo decided to look for a partner to develop its own accreditation platform, which would increase returns.

The company currently works with more than 20 brands, has more than 20 partners, and has its own commercial offices. It transacts more than BRL 1.3 billion per year on its platform and earns approximately BRL 5 million with more than 250 employees. According to rules from the Central Bank of Brazil, the company's means of payment are linked to the operation of a bank.

The startup's platform allows multi-users in the same machine, division of transactions to more than one seller (which facilitates the calculation of tax due by each of them), and recurring payments at the machines without the need to issue slips. There are 17 customized solutions for different markets, from beauty to medical services. Last year, the company reached BRL 1.3 billion in total transaction value, with 25 thousand active customers.

The startup also started to offer another payment alternative, this time by approximation, with Near Field Communication (NFC) technology.

Startup Robalo

Startup Robalo is a company specialized in wine tourism. It carries out projects in the niche of premium sustainable wine tourism, focusing on asset optimization and providing unique and unforgettable experiences for its customers.

According to its founders, these projects' success relies on a team of experienced professionals, high-performance management and implementation, and networking. Also, the company acts in specialized sectors of biodynamic winemaking, wine tourism, and sustainability.

The company focuses on suppliers that can meet industry trends with products and services such as premium and organic wines, unique natural hospitality, and sustainability. The framing of the business in a premium segment results in profitability higher than the market average.

The values:

- Negotiate with people;
- Work practically;
- Adopt the best corporate governance practices; work ethically; compliance; transparency, and accountability;
- Act through sustainable ecological and social practices (e.g., qualification of local work; involvement of the local community; species conservation project);
- Results-driven to ensure a highly profitable business model;
- Acting between the forefront of technology and research (R&D) and the traditions of biological, natural, and ethnographic practices;
- Propose a business model designed to operate at different stages of a project, from conceptual design to operations.

Startup Atum

The history of Atum began even before the company was born. It inherits, in part, the history of the founding partners, who have been in the payments business since the founding of a payment gateway.

In 2010, with the opening of the market and the end of the transaction exclusivity of the main brands, the founders saw the opportunity to participate in this market as payment acquirers. Atum was officially founded in 2012 as a Brazilian acquirer, and although it needed to be linked to a bank, it began to operate independently by the rules of the Central Bank of Brazil.

Between 2015 and 2017, the company multiplied the number of employees by 15 and the number of customer portfolios by 1,500. In 2016, Atum bought another payments acquirer, which, at the time, was twice its size in the volume of capital transacted. It was a time of great exposure to risk, especially in the people management area. The company not only doubled the number of employees but also had an internal culture shock. After the operation, Atum became the fourth largest acquirer in the country.

The company's mission is to transform the payment industry, better balance forces between wholesalers and banks, change the consumer experience, and increase its clients' productivity.

Currently, the company has over 5 thousand employees and offices throughout Brazil, the two main ones in Rio de Janeiro and São Paulo.

The organization's way of work is represented in five main values, described below:

- Own it – own your choices. Take control, lead your destiny;
- No bullshit – do not let bureaucracy get in the way of your results. Go and conquer;
- Teamplay – if you want to go fast, go alone. If you want to go far, go as a team;
- Live the ride – We believe in work with purpose. We live our missions;
- The reason – for us, the customer is not always right. The customer is the reason.

Atum is formed by young people with an average age of 25 years. In its hiring processes, the company selects candidates for their intelligence, energy, and integrity. The startup earns approximately BRL 150 million, and revenues are increasing continuously

ANSWER TO THE RESEARCH QUESTION

This study explored the perspective of investors, professionals from venture capital funds, and startup entrepreneurs and asked which criteria influence the decision-making of a venture capital fund that invested in startups that achieved success based on value-added product innovation (demonstrating creative and innovative thinking).

The analysis of the interviews shows four general criteria for selecting startups:

- a) **People** – assessment of entrepreneurs and startup management team according to their problem-solving and teamwork abilities, innovation-related skills, and persistence. Venture funds observe the relevance of the entrepreneurs' market experience, who recommends them, their academic background, and their entrepreneurial profile. They evaluate the startups' personnel's resilience (capacity to recover in the face of disruption and challenges) and moral and financial suitability. In addition, the quality of the team's communication and the startup's finances are assessed.
- b) **Product** – Venture funds evaluate the product's technological complexity, innovation, and likelihood to meet the current and future needs of a large number of people to have a vast customer base and generate exponential gains. The service must also have a high-value proposition, meet customer requirements by adding new value and sell profitably to many customers.
- c) **Market** – evaluation of the market around the product or service for competitiveness; exponential customer base; opportunities generated by the commercialization of the product; possibility of profit and growth in the market related to the risk associated with the commercialization of the product. Interviewees pointed out that they usually prefer to invest in sectors of the economy that they know well and in which they have experience.
- d) **Finances** – Venture funds conduct a financial audit of the startup, the team, and the entrepreneurs, assess earning prospects in terms of investment (return and risk), and evaluate the quality of the startup's business plan. Startups are advised to ask for professional support when drawing up the business plan to present to potential investors.

With regard to business plans, it is recommended to carry out an analysis following the resource-based view (RBV) model (Barney, 1991), which indicates:

- The advantage of being a pioneering organization in a particular product or service;
- Why the startup would be a pioneer in a given market;
- How to gain competitive advantage and then sustainable competitive advantage;
- What are the startup resources regarding value, rarity, imitability, and characteristics of the organization and team.

The evaluation of startups considers their post-bureaucratic characteristics: innovative, collaborative, young, and resilient team; mutual trust among members; agile and responsible entrepreneurship; ability to solve typical problems of a volatile work environment, characteristic of this type of company; and financial integrity and honesty.

In the startup environment described by the interviewees and with the characteristics discussed in the theoretical framework, the team's collaborative work enables problem-solving and addresses uncertainties inherent in the initial stage of the financial consolidation. Resilience (Irigaray, Paiva, & Goldschmidt, 2017) is a necessary quality for a startup's innovative team, which, in addition to contributing to the evolution of the product, based on advice from investors or startup accelerators, should continue innovating and overcoming the various stages of instability until its maturation. Thus, investors and venture funds positively evaluate a collaborative and small team that knows how to solve problems quickly and implement solutions (Heckscher, 2007; Zanini, 2016).

Interviewees recognized situations where the product is improved, but the team is maintained, demonstrating the abovementioned qualities. Support from startup accelerators and investors' advice are important elements to help polish the product. Also, investors highly appreciate a competent team. Thus, an investor can refuse a product or prefer not to improve it but keep the team and continue investing in the same startup.

CONCLUSION

The analysis of the interviews resulted in the following points valued in the relationship between investors, venture funds, and entrepreneurs: a) innovative design thinking, anticipating trends; b) post-bureaucratic behavior of the startup entrepreneur and the team, with frank and fact-based communication, problem-solving, trust, and team collaboration; c) resilience; d) decision theory for venture capital fund professionals and investors; pattern recognition in the decision-making process based on the investor's experience, with characteristics as described by Simon (1987). The subtopics below address these points.

Design thinking

According to the theoretical framework, there is a clear concern with the ability of entrepreneurs and investors to adopt design thinking or a way of thinking that anticipates behavioral trends of individuals and society in their decision-making process, as can be seen in the speech of Interviewee 3:

The secret of venture capital is to try to anticipate trends. It is investing today in a company that, who knows, will be successful in five, six, seven, eight years (I3, 2020).

In addition, the product or service evaluation process is based on innovative reasoning, which aims to stand out from the current paradigm of behavior and society, anticipating the ideas and needs of consumers and the forms of behavior after certain innovations in the future.

Post-bureaucratic behavior of startups and teams

The interviews show that investors look for startups with persevering, responsible, and (above all) resilient teams that operate effectively in uncertain and volatile environments. They seek startups with team members that know how to collaborate to solve problems and develop innovative products, as Interviewee 6 mentions:

Speaking more precisely about the decision-making process, comparing products and people, people influence the most. The product may be good, but with the wrong people, it will not work. It's no use having a wonderful idea if you don't have the strength to execute it; the culture to execute it. Your idea will move to another [person], and they will implement it better (I6, 2020).

According to the interviewees, frank, direct, fact-based communication and trust among team members are essential for good functioning. Persistence and resilience are important points. Many interviewees recognize that it is worth having a team with these characteristics, even if the product needs to be modified or developed – corroborating the points made by Heckscher (2007).

According to Zanini (2016), once the trust condition is satisfied, the probability of the company's success grows exponentially.

In the bureaucracy, rules are used as a form of negotiation to satisfy the interests of bureaucrats (e.g., salary increases and promotions), who tend to adjust to such norms. In post-bureaucratic teams and organizations, subjected to few rules, efforts are consolidated around broad and direct communication for solving real problems and truly innovating. Thus, there is more effective communication among team members (it is more Habermasian) because there is a concern with the true content of the conversation based on empirical scientific truth and not power games (Heckscher, 2007).

Resilience

According to Irigaray et al. (2017) and Vasconcelos, Cyrino, Carvalho, and Oliveira (2017), resilience is linked to the organization's response to disruptive events through positive adaptation to a new level of complexity, overcoming the situation of disruption, and successfully implementing change. Straightforward and substantive communication, problem-solving, and trust among team members lead to resilience and successfully facing disruptive situations to overcome challenges.

No path of entrepreneurship is easy; this doesn't exist. At least I don't know the story of anyone who knocked on the door more than 15, 20, 30 times and then made a mistake, lost, and gave up. A lot is said about the importance of this story; you realize the amount of frustration the entrepreneur has already had. The amount of "nos" they received and the resilience in the face of these "nos," and moving on and trying again (I7, 2020).

This ability not only differentiates entrepreneurs who are more likely to succeed in managing their companies but also refers to the profile of managers that venture capital funds seek: a competent professional to face new challenges.

Decision theory through pattern recognition

Respondents said they prefer to invest in relatively well-known sectors where they have experience. They also reported that, after several years of working and investing in startups, they developed the ability to recognize patterns of companies more likely to be successful. This pattern recognition considers the entrepreneurs, the teams, the product, and the company's sector.

Pattern recognition refers to the thought of Simon (1987), based on the famous experience of chess players. It demonstrates the construction of the feeling, instinct, or intuition leading decision-makers to choose a certain direction successfully and quickly, given their experience, intelligence, and ability to learn for the correct selection of behaviors and strategies that work successfully. Simon (1987) also suggests that specialists and good professionals start to read and interpret pieces of information and recognize patterns of success to make a decision quickly.

This fact emerged in the speech of Interviewee 3:

Throughout my life story in entrepreneurship, with more than 8 thousand companies, after you talk to a thousand, 2 thousand, 3 thousand different companies or startups, you subconsciously start to create patterns to follow. So it's pattern recognition. It's standard, some things click, and you like, and there are things you don't like [to invest in]" (I3, 2020).

SUGGESTIONS FOR THE FUTURE

Suggestion for further research

This study was carried out only in Brazil. Therefore, future research could explore the creation of acceleration centers and startup incubators in other countries. According to the Innovation Project Report for the Presidency of FGV (Vasconcelos & Lefrere, 2020), countries that invest in national innovation ecosystems, connecting people, resources, policies, and organizations, gain an advantage at a time when industry migrates to production and the use of items with greater value-added and high-level innovation. Studies of concepts such as post-bureaucracy, resilience, and decision-making patterns (Simon, 1987) applied to this theme are also suggested.

Brazil still has much room for growth, according to the report by Vasconcelos and Lefrere (2020). The industrial sector currently accounts for 21% of GDP, and the chance of a startup becoming a unicorn is 0.02%, while in the US, it is 1%, considering all startups in operation.

In 2018, Brazil had four unicorn startups (worth over 1 billion dollars):

- 99 (created in 2012; urban mobility application);
- PagSeguro (created in 2006; means of payment);
- Nubank (created in 2013; financial services);
- Brex (created in 2017; financial services).

In Paris, Station F, a large incubator of promising startups, was created by the current president, Emmanuel Macron, with more than a thousand startups. In Madrid, the space La Nave has already generated many success stories with its 13,000-square-meter area, supporting startups and offering acceleration programs.

Some relevant startup support spaces in Brazil include the Vila Olímpia neighborhood – concentrating technology companies, investors, and startups – and Avenida Paulista in São Paulo. In Rio de Janeiro, Porto Maravilha is a newly remodeled space in the city's port that will host an innovation center shortly.

However, more spaces could be created in the country, gathering and connecting the main stakeholders in this startup innovation and improvement process. Thus, future research could investigate the requirements for the creation of these places, how they work, and their main challenges in promoting innovation. It is worth emphasizing the relevance of creative thinking, as Einstein described, which often justifies the creation of projects that seem theoretical in the present but become real successes in the future.

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