

LAW, INNOVATION AND TECHNOLOGY: ECONOMIC ANALYSIS OF FINTECHS

DIREITO, INOVAÇÃO E TECNOLOGIA:
ANÁLISE ECONÔMICA DAS FINTECHS

LUCAS VINÍCIOS CRUZ¹
HENRIQUE AVELINO LANA²

ABSTRACT

This article makes a legal and economic study of fintechs, which are entrepreneurial companies, usually startups, that operate in the financial market, through the methodological tools of the Economic Analysis of Law. The overall objective is to demonstrate the interaction between fintechs and economic analysis of law. The specific objective is to demonstrate the usefulness of fintechs to reduce transaction costs for their users, from the perspective of Economic Law Analysis. In this sense, the problem to be answered is how the use of fintechs can specifically contribute also to reduce transaction costs, making financial operations faster and more efficient. To arrive at the hypothesis of answer to the problem, the methodology to be used is the purpose of applied research, with exploratory research, in qualitative approach, by inductive method, through bibliographic research, all specialized on the subject.

KEYWORDS: Economic Analysis of Law. Transaction Costs. Fintechs.

RESUMO

O presente artigo faz um estudo jurídico e econômico das fintechs, que são sociedades empresárias, geralmente startups, que atuam no mercado financeiro, mediante as ferramentas metodológicas da Análise Econômica do Direito. O objetivo geral é demonstrar a interação entre fintechs e análise econômica do direito. O objetivo específico é demonstrar a utilidade das fintechs para reduzir os custos de transação para os seus usuários, sob a ótica da Análise Econômica do Direito. Neste sentido, o problema a ser respondido é saber como o uso de fintechs pode contribuir, especificamente, também, para reduzir os custos de transação, tornando as operações financeiras mais céleres e mais eficientes. Para chegar-se a hipótese de resposta ao problema, a metodologia a ser utilizada é a da finalidade de pesquisa aplicada, com pesquisa exploratória, em abordagem qualitativa, por método indutivo, mediante pesquisa bibliográfica, toda ela especializada sobre o tema.

PALAVRAS-CHAVE: Análise Econômica do Direito. Custos de transação. Fintechs.

- 1 Mestrando em Direito Privado pela PUC Minas (bolsista CAPES/PROEX TAXAS). Pós-graduado em Direito de Empresa pela PUC Minas (especialização). Graduado em Direito pelo Centro Universitário UNA, gratificado com a medalha de ouro Portal UNA, premiação entregue ao melhor aluno do curso de Direito do Centro Universitário UNA. Membro pesquisador e bolsista do Grupo de Pesquisa Empresa, Direito e Desenvolvimento Social, vinculado ao Centro Universitário UNA. Advogado. Currículo completo: <http://lattes.cnpq.br/3130173027649574>
- 2 Pós Doutorando, Doutor, Mestre e Especialista em Direito Empresarial. Advogado no Moreira do Patrocínio & Avelino Lana Advogados. Professor no Centro Universitário na UNA e PUC Minas. E-mail: henrique@mpaladvogados.com.br

How to cite this article/Como citar esse artigo:

CRUZ, Lucas Vinícios; LANA, Henrique Avelino. *Law, innovation and technology: economic analysis of fintechs*. Revista Meritum, Belo Horizonte, vol. 15, n. 3, p. 107-126, Sep./Dec.. 2020. DOI: <https://doi.org/10.46560/meritum.v15i3.7387>.

1 INTRODUCTION

The digital world is constantly evolving. Increasingly, we are faced with new technological inventions that, until then, many believed to be impossible. Smartphones and computers increasingly modern and that fit in the palm of your hand. Day after day, the digital market innovates and surprises everyone.

Everything around us is constantly evolving. And, with the financial sector it could not be different. The financial sector has a wave of new agents that have also evolved, initiating an era of technology, innovation and growth potential.

Among the new agents, there are the so-called fintechs, which, in a tight synthesis, are business companies, usually startups, that use technology to innovate and improve the financial sector.

In a survey carried out in 2018 by Finnovation, in conjunction with Finnovista and the Inter-American Development Bank (*Banco Interamericano de Desenvolvimento – BID*), it was found that there are 377 fintechs in Brazil, a 40% increase compared to 2017³.

Internationally, according to data from the report *Fintech Trends to Watch in 2018*, authored by CB Insights, 1128 fintechs moved US\$16,6 billion in investments and negotiations in 2017. These financial market startups have already entered the year 2018 with the 'right foot' and are gaining more and more space and bringing innovation⁴.

And, still on the international stage in terms of fintechs, Europe is the most heated market - it grew 121% in investments in 2017 compared to 2016. However, in Asia this market has shrunk 10%; while North America continued to lead, winning 47% of total capital.⁵

3 Available in: <http://finnovation.com.br/mapa-de-fintechs-brasil-maio-de-2018/>. Accessed on: June 08, 2019.

4 Available in: <https://fintech.com.br/blog/fintech/fintech-internacional/>. Accessed on: June 01, 2020.

5 Here are some fintechs that stand out in the international market: Regarding the means of payment, there are: **1) Ant Financial:** Ant Financial ranks 1st on the list of the "100 most innovative fintechs in the world". The ranking was based on the 2017 Fintech100 study, prepared by KPMG and H2 Ventures. The Chinese startup is the most valuable startup in the world, valued at an incredible US\$ 150 billion. Controlled by Alibaba, the Ant Financial is focused on means of payment. Its facial recognition technology allows customers to pay with a smile in stores in China; **2) Square:** Founded by the creator of Twitter, Jack Dorsey, the North American 'Square' is an international fintech specializing in payment methods. Square is currently valued at US\$ 5,1 billion, against US\$ 12,2 billion for Twitter, but the startup has great profitable potential in the short term; **3) Adyen:** Dutch Fintech is an online payment platform and marketplaces. Adyen allows you to connect payments around the world, optimize revenues and manage risks. Since it was created in 2006, fintech has raised US\$ 266 million in venture capital investments, according to the Venture Beat. The newly valuation reached US\$ 14 billion at positions just behind the Spotify. Adyen processes payments from brands such as Uber, Cabify, Netflix, Magazine Luiza and Spotify. Em relação a empréstimos, há: **4) SoFi:** This North American fintech is focused on an online lending platform. SoFi, which made a lot of noise by being one of the advertisers of the last edition of the Super Bowl, has a credit portfolio with more than US\$ 5 billion, divided among more than 170 thousand account holders. The startup offers several types of personal loans, such as university loans and mortgages. Created in 2011, SoFi has already raised US\$ 2,1 billion in investments and has a valuation of US\$ 415 billion; **5) Kabbage:** Kabbage is a startup that assists smaller companies in obtaining loans, with values generally ranging from US\$ 2,000 to US\$ 100,000. Fintech does the process in a very automated way and takes seconds to approve the credit. The request is made online through a registration on the platform and can be paid from 6 to 12 months. Created in 2009, the startup has a valuation of US\$ 1 billion and has already received a total of US\$ 116 billion in contributions; **6) Funding Circle:** The British startup is a marketplace for loans to finance businesses. Entrepreneurs sign up on a platform, receive loan offers from investors and can pay the amount of 6 months to 5 years. Funding Circle offers loans of up to £ 1 million to companies that want to raise capital quickly or have credit declined by a bank. Its model is based on data analysis and has issued over £ 5 billion in loans since 2010, directly connecting 50,000 businesses with 80,000 investors. Funding Circle is one of the unicorns (startups valued at US\$ 1 billion or more) in the world of credit fintechs. Regarding life insurance: **7) Clover Health:** This North American fintech offers affordable health insurance, created based on how much the user can pay per year. Created in 2013, Clover Health has already received US\$ 425 million in contributions and has a valuation of US\$ 1,2 billion; **8) Oscar:** Oscar brings the experience of going to the doctor to the digital world. In addition to enabling health plans, consultations are made online and are free for patients. The North American startup became a unicorn 16 months after being created in 2013. Currently, it has a valuation of US\$ 3,2 billion, after raising US\$ 892 million in investments. In relation to the purchase and sale of shares: **9) Robinhood:** Created in 2013, the free app called Robinhood transformed the

Thus, the purpose of this article is to carry out an economic and legal analysis of fintech, to demonstrate that its use can facilitate transactions, reduce transaction costs, maximize results and induce behaviors, increasing the efficiency in the legal transactions concluded, according to the Economic Analysis of Law.

To this end, a brief introduction to the study of Economic Analysis of Law will be carried out, moving on to an overview of startups and then making an analysis of fintech, aiming, in a constructive and academic way, to reflect if its use may or may not reduce transaction costs.

2 BRIEF WEIGHTINGS ON ECONOMIC ANALYSIS OF LAW

As noted above, the main objective of this article is to demonstrate whether the use of fintechs can facilitate transactions, reduce transaction costs, maximize results and induce behavior, increasing efficiency in the legal transactions concluded.

However, in order to reach the best conclusion, it is necessary to make a brief explanation about the Economic Analysis of Law, as well as the way it applies to Business Law⁶.

Economic Analysis of Law (*Análise Econômica do Direito – AED*), also known as Law and Economics, is a method of legal-economic study with regard to the structuring, formation, impact and consequences of the application of the principles of Economic Science to Law. It can be defined as the application of economic theory, in particular, its method, for examining the formation, structuring and impact of the application of legal rules and institutions (RIBEIRO; GALESKI JÚNIOR, 2009, p. 53).

The Economic Analysis of Law invokes the methodology of economic science with the factual reality of the legal world.

way Americans invest in the stock market. The rapid growth in the number of users of the Robinhood application shows a demand that was not previously met: users looking for easier ways to invest in the stock market without paying transaction fees. Robinhood is now a consolidated wealthtech, valued at US\$ 5,6 billion and one of the most valuable fintechs in the world. In May this year, it negotiated a round of series D investments worth US\$ 363 million. Today, it accounts for its 4 million users and more than US\$ 150 billion in transaction volume. But if it doesn't charge a fee, how does it make money? Moving amounts transferred to the platform but not invested, in addition to charging US\$ 6 for a premium plan. And now the app has decided to expand its operations to cryptocurrencies. Starting in February, users will be able to trade Bitcoins, Ethereum, Litecoin, Ripple, among others, without fees. For now, they operate in the USA and Australia. Regarding international transfers: **10) Revolut:** British Revolut brings banking services without being a bank. The startup promotes free money transfer between countries, in addition to allowing cryptocurrency buying and selling transactions without fees. The startup reached the unicorn level just 33 months after it was created. Founded in 2015, it has already received US\$ 336 million in investments and today has a valuation of US\$ 1,7 billion. Fintech Revolut predicted that its revenues would increase fourfold in 2018. Last year, this fintech had revenue of 14.3 million euros. The forecast is that the company will close 2018 with revenue of 57 million euros, supported by the strong increase in the number of customers and new products. Despite the growth in revenues and number of customers, Revolut posted a loss of 16,5 million euros, as it doubled its number of employees, applied for a bank license and expanded to 10 markets. Regarding risk analysis and financial market trends: **11) Kensho:** This artificial intelligence software proposes a Herculean task: analyzing important events for the financial market, answering questions from investors and preparing reports trying to predict new trends. Kensho is almost the Siri of the stock exchanges; **12) Black Swan:** The term Black Swan became popular in the economic crisis of 2007, in the United States, to classify events not foreseen by the market. Not for nothing, the goal of this Israeli startup is, based on Big Data and cognitive computing: to carry out risk analyzes for governments and financial institutions. Available in: <https://fintech.com.br/blog/fintech/fintech-internacional/>; Accessed on June 1, 2020.

6 The Constitution of the Federative Republic of Brazil of 1988 uses the term Commercial Law (art. 22, I). However, the Civil Code of 2002 brought the so-called Theory of the Company, which is why the expression Business Law, or Company Law, started to be adopted.

Although EAL has already been mentioned and studied by other scholars of Economic Sciences, such as Adam Smith, when studying the economic effects resulting from the formulation of legal norms, and Jeremy Bentham, when associating legislation and utilitarianism, both in the 18th century (ZYLBERSZTAJN; SZTAJN, 2005, p. 74), it was only from the 1960s that EAL gained strength to unify Law and Economics (PIMENTA; LANA, 2010, p. 92). This, therefore, in 1960, Ronald Coase published the work *The Problem of Social Cost*, initiating the so-called Theory of Transaction Costs, a work that, in 1991, led him to be awarded with the Nobel Prize in Economics. As for the subject, Pimenta and Boglione discourse:

The Nobel winner explained how the introduction of transaction costs in economic analysis determines what organizational forms and institutions in the social environment will look like. The insertion of transaction costs in economy shows the importance of law in determining economic results (PIMENTA; BOGLIONE, 2013, p. 268) (Our translation into english).

It is important to mention that, in addition to the work of Ronald Coase, mentioned above, it should also be noted that Guido Calabresi, professor at Yale University, when developing his work *Some Thoughts on Risk Distribution And Law of Torts*, contributed strongly to the advancement of EAL. This, therefore, Calabresi demonstrated the importance of analyzing the economic impacts of the allocation of resources for the regulation of civil liability, whether in the legislative or judicial sphere. Thus, his work inserted economic analysis into legal issues, pointing out that an adequate legal analysis does not dispense with the economic treatment of issues (ZYLBERSZTAJN; SZTAJN, 2005, p. 1-2). In addition to Ronald Coase and Guido Calabresi, it should be noted that Richard Posner, with his work *Economic Analysis of Law*, as well as Henry Manne, George Stigler, Armen Alchian, Steven Medema, Oliver Williamson, among others, also contributed to the strengthening of academic research on Economic Analysis of Law (ZYLBERSZTAJN; SZTAJN, 2005, p. 74).

Economics can be used to predict the consequences of different legal rules. It's about trying to identify the likely effects of legal rules on the behavior of the relevant social actors in each case (COOTER, 1982, p. 1260). It's possible to model human behavior in such a way that it is possible for the legal professional to understand the likely effects that will arise as a consequence of different legal positions (SALAMA, 2008). In fact, scholars of Economic Analysis of Law come together in the same classification, which belongs to the same denomination, as it has a consensus in relation to the concepts and institutes that are essential to them, which does not prevent constructive debates from being seen, often, pertinent, specific and doctrinal about its possible applicability. Along this path, the study of EAL seeks to develop, interpret and apply the methodology of economic science to legal relations, in order to reduce transaction costs and achieve economic efficiency. Therefore, it can be said that the purpose of EAL is the search for economic efficiency.

In this sense, efficiency, in the words of Bruno Salama: "it's about maximizing gains and minimizing costs. From this perspective, a process will be considered efficient if it is not possible to increase the benefits without also increasing the costs" (SALAMA, 2008, p. 55).

In Business Law, the transaction cost is extremely important, as it's fundamental to the success of the entrepreneur, since it is represented by the monetary value and the time spent to enter into legal transactions, either to plan them or to carry them out in its effects. It can be said, therefore, that the transaction cost is what you need to give up, pay for, or spend time and money on, for effectuation, maintenance, precaution, disposal or assignment of the

legal effects of a contractual relationship (LANA, 2017, p. 75). According to Eduardo Goulart Pimenta (2010, p. 22-23), "transaction costs consist of what you need to pay or which you must give up to establish, maintain, protect or transfer the rights and duties arising from a contractual relationship".

Therefore, efficiency consists in reducing transaction costs as much as possible, so that, more and more, contracts are signed and, more and more, there is organization and accumulation of production factors, resulting in maximization of riches, which is represented by profit.

As taught by Eduardo Goulart Pimenta:

The efficiency of the Law consists of minimizing (or hypothetically ending) transaction costs - by reducing or eliminating difficulties and expenses for hiring - so that, in the exercise of the company, there is a greater quantity and quality of exchanges and legal relationships for the organization of factors of production. From an economic point of view, the legal discipline of the company must be concerned with seeking to reduce as much as possible the costs that entrepreneurs face in order to achieve the legal relations aimed at the organization of factors of production (PIMENTA, 2010, p. 33) (Our translation into english).

There are two important connotations of efficiency known and used in EAL: the Pareto efficiency, the one in which the position of A improves without prejudice to the position of B, as well as the so-called Kaldor-Hicks efficiency, in which the product of A's victory exceeds the losses of B's defeat, thus increasing the total surplus (PINHEIRO; SADDI, 2005, p. 88).

Pareto's efficiency means that goods must be transferred from those who value them little, in favor of those who value them most (SZTAJN, 2005, p. 76). In other words, in Pareto, efficiency occurs in transactions that improve the situation of an economic agent, without worsening the situation of others.

According to Eduardo Goulart Pimenta and Stefano Bognione, "the optimal standard of efficiency occurs when economic agents have access to the goods that they value most, through a system of exchanges or allocation of resources" (PIMENTA; BOGLIONE, 2013, p. 268).

Still on efficiency in Pareto, Armando Castelar Pinheiro and Jairo Saddi explain that an allocation of resources will be 'efficient Pareto' when "there is no change that improves the situation of an agent without making the situation of at least one other agent worse". (PINHEIRO; SADDI, 2005, p. 120). The main point of efficiency in Pareto is to demonstrate that transactions can be so efficient that it would be impossible to carry out any transaction in which the parties would suffer losses. In contrast, Kaldor Hicks' efficiency means that positive laws "must be used to cause maximum welfare, in relation to the largest number of individuals, insofar as the general gains outweigh the possible losses suffered individually by some" (PIMENTA; LANA, 2010, p. 107). In the words of Eduardo Goulart Pimenta and Stefano Bognione:

There is the Kaldor-Hicks Efficiency, therefore, when the product of A's victory exceeds the losses of B's defeat, thus increasing the total surplus. There will be a real gain in the welfare of society when the redistribution of riches means that economic agents do not wish to return to their original position, although they still receive, in cash, the amount corresponding to the increase

in their goods and services (PIMENTA; BOGLIONE, 2013, p. 268) (Our translation into english).

Therefore, according to the Economic Analysis of Law, the parties must make decisions that lead to greater welfare, that is, they must act in favor of efficiency, in line with Pareto efficiency or Kaldor Hicks efficiency.

Following this line of reasoning, Irineu Galeski Junior and Márcia Carla Pereira Ribeiro emphasize that the individual must apply the decision that causes the greatest welfare, considering that EAL focuses on the search for better welfare, better allocation possible of goods, leading to welfare within the limits (RIBEIRO; GALESKI JÚNIOR, 2009, p. 89). In the words of the authors:

Among two possible decisions, the one that causes the greatest welfare is the one that must be applied, having to be observed if the parties involved are in a relatively homogeneous initial situation. The Law & Economics school, for all intents and purposes, focuses on the search for the best welfare, the best possible allocation of assets, leading to welfare within moral limits (RIBEIRO; GALESKI JÚNIOR, 2009, p. 89) (Our translation into english).

Bruno Salama (2008, p. 54-55) well synthesizes the methodological tools that can be used in the study of Law and Economics, namely: scarcity, rational maximization, balance, incentives and efficiency. As for scarcity, the author understands that, if the resources were infinite, it would not be necessary to consider their allocation. Soon, everyone could have everything they wanted, in the amount they wanted.

In relation to rational maximization, the author argues that it refers to the option for choices that meet the personal interests of individuals. Thus, individuals calculate to achieve the greatest benefits at the lowest costs, leading to the marginalist decision process, which means that, in the decision-making and choice-making processes, individuals will only carry out the next step in an activity if benefits outweigh its costs. As for balance, he goes on to say that this is the 'interactive behavioral pattern' that is achieved when all actors are simultaneously maximizing their own interests. As for incentives, these are implicit prices, given that individuals seek to make choices that maximize their benefits with the consequent reduction in costs.

Regarding efficiency, which, as already mentioned, refers to maximizing gains and minimizing costs. Thus, the author concludes by saying that a process will be efficient if it's possible to increase the benefits without increasing the costs.

As can be seen, considering the dynamic aspect of the company, this is a coordinated bundle of legal relationships established by contracts and, therefore, by an economic approach, efficiency consists in reducing transaction costs as much as possible, aiming that each more and more, contracts are signed and, increasingly, there is organization, accumulation of factors of production, resulting in maximization of riches represented by profit (LANA, 2017, p. 78).

Especially in relation to the contracts signed by the entrepreneur or company, EAL should always be used, seeking to reduce the scarcity of resources, opting the company for choices that meet its interests, in order to achieve greater benefit at the lowest cost, as well as efficiency in what to hire, with who to hire, when to hire and how to hire, that is, these acts must be practiced in order to seek efficiency.

Thus, advances are made in the rationale for knowing how fintechs can be advantageous in transactions carried out by the company in order to contribute to reduce transaction costs and speed up and efficiency.

3 STARTUP: A MIXTURE OF INNOVATION, TECHNOLOGY AND UNCERTAINTIES

The term startup is increasingly used and is highlighted in the technological and entrepreneurial world, having gained greater notoriety in the late 1990s, with the so-called '.com' companies (OIOLI, 2019, p. 11). But, after all, what would a startup be? What are its characteristics?

Eric Ries (2012, p. 26) defines the startup as "a human institution designed to create new products and services under conditions of extreme uncertainty". The Author discusses this concept, arguing that the most important part of this definition is what it omits, considering that the concept of startup does not concern the size of the company, its activity or its sector of the economy.

I came to realize that the most important part of that definition is what it omits. It says nothing about the size of the company, the activity or the sector of the economy. Anyone who is creating a new product or business under conditions of extreme uncertainty is an entrepreneur, whether they know it or not, and whether they work for a government entity, a venture-backed company, a non-profit organization or a company with financial investors decidedly focused on profit (RIES, 2012, p. 26) (Our translation into english).

From this concept, the terms highlighted are: institution, product, innovation and extreme uncertainty, as characteristics of a startup.

Let us consider each of the parties. The word institution connotes bureaucracy, process, even lethargy. How can this be part of a startup? However, successful startups are full of activities associated with institution building: hiring creative employees, coordinating their activities, and creating a business culture that generates results.

We often lose sight of the fact that a startup is not about a product, a technological innovation or even a brilliant idea. A startup is bigger than the sum of its parts; it is an intensely human initiative.

The fact that the startup's product or service is a new innovation is also an essential part of the definition, and also a delicate part. I prefer to use the broader definition of product, one that encompasses any source of value for people who become customers.

Anything that customers experience from interacting with a company should be considered part of that company's product. This is true of a grocery store, an e-commerce site, a consultancy service and a non-profit social service entity. In all cases, the organization is dedicated to revealing a new source of value for customers and is concerned with the impact of its product on those customers.

It's also important that the word innovation is understood widely. Startups use many types of innovation: original scientific discoveries, a new use for an existing technology, creation of a new business model that releases a hidden value, or the simple availability of the product or service in a new location or for a group of previously poorly served customers. In all of these cases, innovation is at the heart of the company's success.

There is one more important part of that definition: the context in which innovation takes place. Most companies - large and small - are excluded from these contexts. Startups are designed to face situations of extreme uncertainty. Opening a new company, which is an exact clone of an existing business, copying business model, pricing, target customer and product, may even be an attractive economic investment, but it's not a startup, as its success depends only on execution - so much so that this success can be modeled with great accuracy. (This is why so many small businesses can be financed with simple bank loans; the level of risk and uncertainty is so well understood that a credit analyst can assess their future prospects.)

Most general management tools are not designed to flourish in the adverse soil of extreme uncertainty, in which startups thrive. The future is unpredictable, customers are witnessing a growing set of alternatives, and the pace of change is always increasing. However, most startups - in garages and businesses - are still managed through standard forecasts, product milestones and detailed business plans. (RIES, 2012, p. 26-27) (Our translation into english).

Bruno Feigelson, Erik Fontenele Nybø and Victor Cabral Fonseca give a broader concept of what a startup is; for the authors, a startup is "a group of people looking for a business model, based on technology, repeatable and scalable, working in conditions of extreme uncertainty" (FEIGELSON; NYBØ; FONSECA, 2018, p. 31).

A great advantage of the business model adopted by startups is the effective ability of the product to be replicable and scalable due to the use of technology, where being replicable means that "it's possible to deliver the product or service on a potentially unlimited scale, without the need for adaptation or customization for the client while being scalable means that the startup "has the capacity to grow more and more through the sale of a product or service that can be produced or distributed in large quantities, resulting in an economy of scale, without the necessary change of the business model or significant increase in your costs" (FEIGELSON; NYBØ; FONSECA, 2018, p. 34-35).

In addition to the above characteristics, Bruno Feigelson, Erik Fontenele Nybø and Victor Cabral Fonseca (2018, p. 24-26) also bring the following characteristics of a startup:

- It's in an initial stage, notably lacking internal processes and organization, often without a clear business model;
- It has an innovative profile, which is one of the most important characteristics;
- Has significant control over expenses and costs, in order to focus investments on the development of your main product or service;
- Your product or service is operationalized through a minimum viable product (MVP), which is the development of the product or service in a simple way, just to make it possible to check if really there is a demand and to keep initial costs low;
- The product or idea explored is scalable, that is, it can be easily expanded to other markets and at different levels of capillarity and distribution, in order to achieve

- economies of scale through replication of the same product to countless customers;
- Shows the necessity for third-party capital for the initial operation, which is why it is common to search for external investors to finance the operations;
- Uses technology in favor of your business model, to develop scalable and innovative businesses;
- They operate in a market of extreme uncertainty, due to the high risk.

The fact is that, despite the strong link with technology, a startup does not necessarily, absolutely, need to work with digital products or services. Startups are the big bet of the market and form a true ecosystems worldwide.

They are of low initial capital and fast growth, with young DNA and a promising business model. To enter the universe of startups, it's not enough to have a great idea. It's necessary to work hard, get to know the client thoroughly and have the courage to take risks in search of ambitious dreams.

Startups are beginning activities, with a young approach and adapted to the digital model, so important nowadays. Although they are small, they provide innovative proposals for services to be provided or products to be produced and manufactured.

It aims to generate an impact through something that proves to be new and has enormous possibilities for development. They stem from ideas with good chances of success to be leaders and major players in their markets.

The startup is in an embryonic phase and seeks a repeatable, scalable and highly profitable business model, prioritizing innovation in a high risk environment.

The potential to reach large markets with a lean structure is one of the main traits of startups. With a very low starting capital, the company can reach millions of consumers.

Startups are strongly related to technology. Even if the focus is not a solution specifically aimed at the area, hardly anything will have a positive result if its creators do not use this technological tool to their advantage. If we also consider that a startup is a company that explores innovative activities, this concept of applying new technologies becomes even more evident and justified.

The main characteristics of a startup are innovation, scalability, repeatability, flexibility and speed. That is, very similar concepts and close to technological news.

Currently, rarely something is done without the influence of technology, especially when we are talking about innovations.

In fact, the concept of the "new" brings a futuristic idea, as a way of performing tasks or resolving issues that have not yet been created. It should be noted that innovation is the main characteristic of startups. Innovating is the first step of a company that wants to launch itself as a startup.

The main foundation of a startup is to present and develop solutions to problems in an innovative way, which has never been tested before, but which has great chances of succeeding and becoming an excellent business.

Thus, they bring services that have always been necessary, but that have never been thought of before. Equally, it happens with products, as they serve as sure solutions for the countless and different demands of society.

They are disruptive. This is because startups break out or burst patterns in relation to other companies in the same segment, usually already consolidated. This characteristic is shown through forms of assistance, exemption or reduction of fees and even in the way how the services are provided or made available.

In other words, the purpose is to escape from what the market offers, standing out and gaining the necessary competitiveness. In addition, they are scalable, that is, they have a great possibility of growth, vertiginous, doing this without consequences or limits in their operations. Such scalability occurs mainly because they are generally linked to the digital environment. Consequently, its products and services can be delivered to an increasing number of customers, without requiring further efforts, investments, expenses or expenses. A scalable business is one that can grow at a very fast pace without changing the proposed model. In other words, the company's revenue increases exponentially, but the costs remain practically the same.

A startup is repeatable, because the same product or service can be offered on a large scale, without any limitations. Therefore, it must be little flexible or customizable. To be repeatable is to deliver the same products and services in a reproductive way, without the need to over-customize. The proposal is to multiply and reach more customers and adaptations would hinder these goals.

Another inherent characteristic is the uncertainty. This is because a startup does not have a well-defined direction with regard to success and there is a high risk of failure. Therefore, despite being solid proposals and with a great chance of having good results, they have no precedents that authorize it and that help to hold clear and absolute perspectives over the future time.

It is worth mentioning that, as a rule, activities inserted in the context of digital entrepreneurship have their performance on the world wide web, dispensing physical locations and also the need to move to make appointments, consultations, meetings, etc. Generally, they are almost 100% digital businesses.

Startups hover around really innovative products and services. Therefore, by having good thoughts and being attentive to services that can be successful and achievement, sooner or later, totally incredible ideas tend to arise. In the same sense, any startup stems from a prototype phase, by which the business model will be tested before its target audience, in a small and small sample.

It's important to start with a basic version, understand and observe the results it obtains, evaluating the public's reaction. After the tests, it will also be possible and relevant to focus on the adaptations to arrive at the final model. To create one, good partners are essential, because starting alone is always very difficult. They need different skills to be exercised by people they trust within their networking, who have skills complementary to theirs.

Therefore, a startup is a mixture of innovation, technology, uncertainties and risks, in which a group of people work together for the development of a product or service, replicable and scalable. Now, we are going to delve into a specific startup segment, namely, fintechs.

3.1 DEFINITION OF STARTUP ACCORDING TO COMPLEMENTARY LAW N° 167/2019

In spite of the exponential growth of startups in the entrepreneurial ecosystem, it was only in the year 2019 that the national legislation expressly and unequivocally regulated the startups. Thus, was published the Complementary Law n° 167/2019, which amends Complementary Law n° 123/2016, and brought the concept of startup, as well as a specific tax regime for the entrepreneur who wishes to follow the business model.

In accordance with article 13 of LC n° 167/19, article 65-A was included in LC n° 123/16, accompanied by 13 paragraphs, which created 'Inova Simples', which consists of a special simplified regime, which allows different treatment to business initiatives that declare themselves as startups or innovation companies.

This differentiated regime is a summary rite for opening and closing companies under the 'Inova Simples' regime, which will take place in a simplified and automatic way, digitally, through a National Network for the Simplification of Registration and Legalization of Companies and Businesses (*Redesim – Rede Nacional para a Simplificação do Registro e da Legalização de Empresas e Negócios*) (Art. 65-A, §3º, LC 123/16).

Also according to the provision, the objective of Inova Simples is to stimulate the creation, formalization, development and consolidation of these business initiatives as agents that induce technological advances, as well as to promote the generation of employment and income.

In this vein, article 65-A, §§ 1º and 2º, of LC n° 123/16, expressly conceptualizes what a startup would be. According to the referred Law, it is considered as a startup: an innovative company that aims to improve systems, methods or business models, production, services or products, existing or totally new.

It is important to point out that the activity developed by the startup can aim at: improving systems, methods or business models, production, services, including existing products, when the so-called startups of an incremental nature are characterized, or even be related the creation of something totally new, featuring startups of a disruptive nature.

In addition, startups are also characterized by the development of their innovations in conditions of uncertainty, which require constant experiments and validations, including through provisional experimental marketing, before proceeding to full complementation and obtaining obtaining revenue/return.

Unraveling the concept brought by paragraphs 1º and 2º, of article 65-A, of LC n° 123/16, it's clear that the legislator faithfully followed the characteristics of startups used worldwide, considering that, to be considered a startup, it is necessary, mainly, but not only: **(i)** have/has an innovative character and **(ii)** development of the activity in conditions of uncertainty.

The article 65-A, § 4º, of LC 123/16 provides the information that must be provided, by completing the registration form for the entrepreneurs who will adopt Inova Simples. Among this information, it can be highlighted if what appears in item II, which states that the 'corporate name' of the startup that adopts this simplified special regime must contain the expression "Inova Simples (I.S.)", obligatorily.

Also, the funds capitalized by the startup that adopts this regime, will not constitute income and will be destined, exclusively, to fund the development of its projects. In addition, the Law allows the experimental sale, by the startup, of the service or product, up to the limit set for the individual microentrepreneur.

Therefore, the change brought by LC nº 167/19, is strongly focused on the startup in its initial stage. However, Brazilian legislation has made progress in characterizing and conceptualizing a startup. However, it's clear that these changes need further regulation and clarification, given that there are still gaps to be filled.

4 FINTECHS: TECHNOLOGY AND INNOVATION OF FINANCIAL SERVICES

The term fintech combines the activity of finance with technology (financial technology), and can be used to refer to companies and businesses that apply technology to provide financial services or services related to financial services (OIOLI; SILVA; ZILIOTI, 2019, p. 187).

According to Rébecca Menat, communications director for The Assets (2017, p. 10), fintech means financial technology and "encompasses a new wave of companies changing the way how people pay, send money, lend and invest".

Examples of fintechs are: NuBank, Creditas, GuiaBolso, PayPal, Bidu, PicPay, Toro Investimentos, Neon, QuintoAndar, Méliuz, among others.

The Central Bank defines fintechs as follows:

Fintechs are companies that promote innovations in the financial markets through the intense use of technology, with the potential to create new business models. Internationally, fintechs are classified as follows: payment, compensation and settlement, deposit, loan and capital raising, financing, and investment management. In Brazil, we can identify the following categories of fintechs: payment, financial management, loan, investment, financing, insurance, debt negotiation, crypto and Distributed Ledger Technologies (DLTs), foreign exchange, and multiservices (BRASIL, 2018) (Our translation into english).

According to Mariana Congo (2017), fintech is the term used to describe companies that provide services of a financial nature, with the use of technology as their differential, and all their customers are served only by computer or smartphone.

The Nubank Team (2019), defines fintechs as: "startups or companies that develop fully digital financial products, less bureaucratic, more transparent and that challenge the market dominated by large banks".

This terminology originated in New York City, in a startup acceleration program developed by Accenture, in partnership with the New York City Hall. Over time, fintech started to designate or follow startups that innovate financial services, based on technology and, thus, creating new business models in areas such as current account, credit card, personal and

corporate payments, payments in general, investments, insurance, among others (GANZER, et al., 2017)

In this sense, fintechs use technology to be able to innovate and improve the financial services provided by banks, that is, "companies in the sector use technological resources widely disseminated to create methodologies, processes and tools that facilitate access to financial services" (ALECRIM, 2018).

Ganzer, citing the OECD Manual (GANZER, et al., p. 5, apud OECD, 2005), says that innovating does not necessarily mean creating something that never existed, but it also consists of improving production techniques that can affect from quality to the physical characteristics of the product or service, or even the development of economic business models.

In this tuning fork, fintechs offer the most diverse financial services, such as: financing, alternative financing, insurance, asset management, finance management, personnel, payments, investments, corporate finance management and digital banks, and these services are offered by cell phone or internet banking without the need for physical movement to the institution (BIGNARDI; PIACENTE, 2018, p. 569).

4.1 FINTECHS REGULATION BY THE NATIONAL MONETARY COUNCIL

Currently, there is no law that directly regulates fintechs. However, in 2018, the National Monetary Council (*Conselho Monetário Nacional – CMN*) issued Resolution nº 4.656, dated April 26, 2018, which provides for fintech exclusively of credit.

According to the Central Bank, credit fintechs are financial institutions that grant and mediate credit operations (BRASIL, 2018).

In this vein, according to article 1º, of Resolution nº 4.656/18 which created the Direct Credit Society and the Loan Society Between People (*Sociedade de Crédito Direto – SCD and Empréstimo Entre Pessoas – SEP*), disciplined the carrying out of loan and financing operations between people through an electronic platform and establishes the requirements and procedures for authorization to operate, transfer of corporate control, corporate reorganization and cancellation of the authorization of these institutions.

According to this Resolution, both *SCD* and *SEP* are considered financial institutions, being able to operate exclusively through digital platforms, that is, through the internet or applications (OIOLI; SILVA; ZILIOTI, 2019, p. 190).

Article 3 of this Resolution provides that the *SCD* is a financial institution whose object is to carry out loan, financing and acquisition of credit rights operations exclusively through an electronic platform, using financial resources that have as their sole source the own capital/equity.

The *SEP* is provided for in article 7º of Resolution nº 4.656/18, which states that *SEP* is a financial institution, whose object is to carry out loan and financing transactions between people exclusively through an electronic platform.

Oioli, Silva e Zilioti (2019, p. 191), clarify that the main difference between *SCD* and *SEP* is that the first will only be able to act using equity (own capital), while the second will be able to

raise funds from the parties involved in the operation, acting as an intermediary of traditional financial institutions, without retaining credit risk.

Below, see the comparative table of *SCD* and *SEP*, created by Oioli, Silva and Zilioti (2019, p. 190-191):

	SCD	SEP
Object	Loans; Financing; and Acquisition of Credit Rights	Loans and Financing
Origin of Capital	Own	Creditors and debtors
Form of performance	Exclusively by electronic platform	Exclusively by electronic platform
Other services	Credit analysis for third parties; Credit collection for third parties; Acting as an insurance representative through an electronic platform; and Electronic currency issuance	Credit analysis for customers and third parties; Credit collection for customers and third parties; Acting as an insurance representative; and Electronic currency issuance
Denomination	"Direct Credit Society" "Sociedade de Crédito Direto"	"Loan Society Between People" "Sociedade de Empréstimo entre Pessoas"
Prohibition	To raise public funds, except by issuing shares; and, Participate in the capital of financial institutions	Carry out loan and financing operations with its own resources; Participate in the capital of financial institutions; Co-obliging/collecting or providing any type of guarantee in loan or financing operations, except in some cases; Remunerate or use to your advantage the funds raised by loan or financing operations; Transfer funds to debtors before they are made available by creditors; Transfer funds to creditors before payment by debtors; Maintain resources of creditors and debtors in account of their ownership not linked to loan or financing operations; and, Link the performance of the credit operation to the efforts of third parties or the debtor, as an entrepreneur.

(Our translation into english)

Also according to the authors, this Resolution also establishes the guidelines for obtaining authorization for a fintech to function as an *SCD* or *SEP*, as well as the procedures to be observed in its operations. In his words:

In the case of *SCD*, the loan or financing must always be made through an electronic platform, with exclusive use of own resources. In relation to *SEP*,

the loan or financing will start with the unequivocal manifestation of the will of the parties (potential creditors and debtors). Subsequently, the resources that are the object of the transaction will be made available by the creditors to SEP, which in its turn will sign an instrument representing credit with debtors and creditors. Only after the conclusion of this step that SEP will be able to transfer the funds to the debtors, in order to ensure that the entity does not retain the credit risk for itself due to possible default by the parties involved in the transaction (OIOLI; SILVA; ZILIOTI, 2019, p. 191) (Our translation into English).

Therefore, only credit fintechs are regulated by National Monetary Council (*Conselho Monetário Nacional – CMN*), consisting of the formats: Direct Credit Society (*Sociedade de Crédito Direto – SCD*) and a Loan Between People Company (*Sociedade de Empréstimo Entre Pessoas – SEP*).

5 ADVANTAGES OF FINTECHS: REDUCTION OF TRANSACTION COSTS AND SEARCH FOR EFFICIENCY

According to Kashyap and Weber (2017, p. 227), internet, mobility, social networks and the rise of price comparison sites have changed the game over the past decade and created a new generation of customers who demand simplicity, speed and convenience in their interactions with financial service providers. Thus, fintechs, place their customers at the center of their business model.

For Spiros Margaris (2017, p. 240), advisor to the FinTech Forum and CEO of the Margaris Advisory, fintechs are specialized and focused on adapting to customers' dreams and desires, "they are, therefore, more flexible and adaptable than the big financial companies. In addition, its reason for existing and its future are always closely linked to meeting the needs and desires of customers".

Due to the use of technology, fintechs have a lower operating cost, which is why the services offered reach the consumer at a lower price than the services offered by traditional financial institutions.

By way of illustration, the fintech Creditas, which operates with secured loans, makes loans at a rate of 0,99% per month, as informed by its website⁷.

In contrast, according to statistics presented by the Central Bank, traditional banks charge a much higher monthly interest rate, such as Banco Santander, which imposes a monthly fee of 14,77%, or Caixa Econômica Federal, with a monthly rate of 12%.

In this sense, fintechs appear as a more viable option for the individual consumer and corporate companies, through a significantly lower cost structure than traditional banks, in view of their leaner business model, through the use of technology.

With this, more efficient solutions can be offered, with financial services customized according to the user's needs, for example, loans, discount of receivables, payment and

⁷ Available in: <https://www.creditas.com.br/>. Accessed on: August 08, 2019.

receipt services, cash flow management, offshore payment remittances and electronic trade finance (FARIA, 2018, p. 53).

A major advantage of fintechs in relation to traditional financial institutions is the use of technology, as it's possible for customers to control products through their smartphones (NUBANK, 2019).

Another advantage is the unnecessary move to agencies or headquarters of the fintechs, considering that everything is hired and solved through the internet.

On its website, Nubank cites the advantages of fintechs:

In general, fintechs are known for offering new financial solutions, less bureaucratic, more intuitive to use - after all, they are usually available on the customer's smartphone - and with very low costs, sometimes nonexistent, for users.

One example is credit cards with no annual fee or free digital accounts.

All this thanks to technology. Because they were born in the digital world and do not have large physical structures, such as bank branches, their costs are greatly reduced. That is why many offer fee-free products and are able to scale quickly.

In short, fintechs arrive on the market bringing innovative financial products. In many cases, they have been designed to be simpler and more beneficial for customers (NUBANK, 2019) (Our translation into english).

Due to all these advantages, fintechs are able to innovate the financial system, making it more efficient, considering that, with its use, it's possible to reduce transaction costs.

This, because, as explained above, the transaction cost is what you need to give up, pay for, or spend time and money on, to effect, maintain, prevent, dispose of or assign the legal effects of a contractual relationship (LANA, 2014, p. 29).

With fintechs, the user saves money, as transactions are less costly and often free, as well as interest rates are much lower than those charged by traditional financial institutions.

In addition, the user is also able to save time, since, as a rule, fintechs operate exclusively over the internet, without the physical presence of the contractor, saving him from wasting time with displacement. Thus, if it's necessary to carry out a transfer of values, for example, the parties can do it from anywhere using a computer or smartphone. Still, any businessman or company that needs working capital to maintain operations, manages to make a loan quickly, efficiently and safely, with lower interest rates than traditionally.

Consequently, it will result in a reduction in transaction costs. With the reduction of transaction costs, there will be greater efficiency in the legal transactions entered into, resulting in the possibility of entering into new contracts, new transactions and, increasingly, organization and accumulation of factors of production, resulting in maximization of richness and profit.

Therefore, it can be said that fintechs make financial services and legal relationships more efficient, as they manage to reduce transaction costs, benefiting their users.

6 CONCLUSION

This work does not intend to exhaust the topic. These are constructive, academic and not definitive reflections, but which sought to be exposed in a technical, objective, complete and reasoned manner.

The problem to be answered in this article is: if the use of fintechs can contribute, specifically, also, to reduce transaction costs, making financial operations faster and more efficient.

As explained above, the Economic Analysis of Law (*Análise Econômica do Direito – AED*), is a legal-economic study method, in which the principles of Economic Science are applied to Law, that is, the application of economic theory to Law. Thus, with the study of EAL, we seek, through the methods of Economic Science, to reduce transaction costs, which is: everything that needs to be paid or given up to constitute, maintain, protect or transfer the rights and duties arising a contractual relationship.

By reducing transaction costs, it will be possible to achieve efficiency and so increase the profit.

Thus, when entering into legal transactions, the parties must always seek to reduce transaction costs and maximize results, achieving the so desired efficiency.

In this tone, with new technologies, the number of startups grows more and more, which is a mixture of innovation, technology, uncertainties and risks, in which a group of people work together in favor of the development of a product or service, replicable and scalable.

In fact, the concept adopted by Complementary Law nº 167/19, when regulating startups, preserved these characteristics.

Some startups operate in the financial sector. These are called fintech, which is the startup that uses technology to improve and innovate financial services. Fintechs provide services such as loans, financing, payments, financial management, asset management, among others, all using technology.

Only the so-called credit fintechs are regulated in Brazil, through Resolution nº 4.656/18, of the National Monetary Council (*Conselho Monetário Nacional*), which created the Direct Credit Society (*Sociedade de Crédito Direto – SCD*) and the Loan Society Between People (*Sociedade de Empréstimo Entre Pessoas – SEP*), disciplined the carrying out of loan and financing operations between people through an electronic platform and establishes the requirements and procedures for authorization to operate, transfer of corporate control, corporate reorganization and cancellation of authorization of these institutions.

Due to the use of technology, fintechs are able to provide financial services, at lower values than usually charged by a traditional financial institution. In addition, fintechs do not need displacement to physical agencies, saving the users' time.

Fintechs have numerous advantages that bring innovation to the financial system, resulting in reduced transaction costs and greater efficiency in the financial services provided, resulting in the possibility of entering into new contracts, new transactions and more organization and accumulation of production factors, resulting in maximizing riches of profit.

Therefore, as a hypothesis to answer the question-problem that was proposed in this article, it appears that fintechs can certainly contribute to reduce transaction costs and increase efficiency.

REFERENCES

ALECRIM, Emerson. What is fintech? (*O que é fintech?*). Available in: <https://www.infowester.com/fintech.php>. Accessed on: June 03, 2019.

ALVAREZ, Alejandro Bugallo. Economic Analysis of Law: Contributions and Demystifications (*Análise Econômica do Direito: Contribuições e Desmistificações*). Available in: http://direitoestadosociedade.jur.puc-rio.br/media/Bugallo_n29.pdf. Accessed on: August 22, 2017.

BIGNARDI, Silvia Dourado Casado; PIACENTE, Fabricio. Fintech, innovation in the banking segment and the use of blockchain technology, a bibliometric analysis of the state of the literature (*Fintech, a inovação no segmento bancário e o uso da tecnologia blockchain, uma análise bibliométrica do estado da literatura*). Available in: http://www.portal.cps.sp.gov.br/pos-graduacao/workshop-de-pos-graduacao-e-pesquisa/013-workshop-2018/artigos/SistemasProdutivos/Tecnologia_Informacao/Fintech_a_inovacao_no_segimento_bancario_e_o_uso_da_tecnologia_blockchain.pdf, Accessed on: June 03, 2019.

BRASIL, Banco Central. FAQ-*Fintechs* (FAQ-*Fintechs*). Available in: https://www.bcb.gov.br/aces-soinformacao/legado?url=https:%2F%2Fwww.bcb.gov.br%2Fpre%2Fbc_atende%2Fport%2Ffintechs.asp%3Fidpai%3DFAQCIDADA0. Accessed on: June 4, 2019.

BRASIL, Banco Central. Physical person - overdraft (*Pessoa física – cheque especial*). Available in: https://www.bcb.gov.br/estatisticas/reporttxjuros/?path=conteudo%2Ftxcred%2FReports%2FTaxasCredito-Consolidadas-porTaxasAnuais.rdl&nome=Pessoa%20F%C3%ADsica%20-%20Cheque%20especial¶metros=tipopessoa:1;modalidade:216;encargo:101&exibeparametros=false&exibe_paginacao=false. Accessed on: August 11, 2019.

BRASIL, Banco Central. Resolution nº 4.656, of 4/26/2018 (*Resolução nº 4.656, de 26/04/2018*). Available in: https://www.bcb.gov.br/pre/normativos/busca/downloadNormativo.asp?arquivo=/Lists/Normativos/Attachments/50579/Res_4656_v1_0.pdf. Accessed on: August 11, 2019.

CHISHTI, Susanne; BARBERIS, Janos. The Fintech Revolution: The handbook for financial startups (*A Revolução Fintech: O manual das startups financeiras*). Rio de Janeiro: Alta Books Editora, 2017.

COASE, Ronald H. The Social Cost Problem (*O Problema do Custo Social*). 1960. Available in: <http://www.pucpr.br/arquivosUpload/5371894291314711916.pdf>. Accessed on: August 28, 2017.

CONGO, Mariana. What is fintech and how does it revolutionize the financial market today? (*O que é fintech e como ela revoluciona hoje o mercado financeiro?*). Available in: <https://blog.magnetis.com.br/o-que-e-fintech/>. Accessed on: June 03, 2019.

COOTER, Robert; ULEN Thomas. Law & Economics (*Direito & Economia*). 5ª ed. Tradução: Luis Marcos Sander, Francisco Araújo da Costa. Porto Alegre: Bookman. 2010.

COURTNEY, Anthony MC. Fintech: what is it and why is it on the rise? (*Fintech: o que é e por que está em alta?*). Available in: <http://blog.eqseed.com/o-que-e-fintech/>. Accessed on: June 04, 2019.

CREDITAS. Available in <https://www.creditas.com.br/>. Accessed on: June 08, 2019.

EQUIPE NUBANK. What is fintech and why did this term get so popular? (*O que é fintech e por que esse termo ficou tão popular?*). Available in: <https://blog.nubank.com.br/fintech-o-que-e/>. Accessed on: June 04, 2019.

EU SOU EMPREENDEDOR. What is fintech, the revolution in the financial market (*O que é fintech, a revolução no mercado financeiro*). Available in: <https://eusouempreendedor.com/fintech-mercado-financeiro/>. Accessed on: June 03, 2019.

- FARIA, Emerson. Credit fintechs and financial intermediaries: a comparative analysis of efficiency (*Fintechs de crédito e intermediários financeiros: uma análise comparativa de eficiência*). 2018. Dissertation (Master in Entrepreneurship) - Faculty of Economics, Administration and Accounting, University of São Paulo, São Paulo, 2018. DOI. 10.11606/D.12.2019.tde-07012019-112337. Accessed on: August 11, 2019.
- FEIGELSON, Bruno; NYBØ, Erik Fontenele; FONSECA, Victor Cabral. Startups Law (*Direito das Startups*). São Paulo: Saraiva, 2018.
- FINNOVATION. What is fintech (*O que é fintech*). Available in: <http://finnovation.com.br/o-que-e-fintech/>. Accessed on: June 03, 2019.
- FINTECHLAB. Fintechlab Mission (*Missão Fintechlab*). Available in: http://fintechlab.com.br/wp-content/uploads/2017/02/Report_FintechLab_2017.pdf. Accessed on: August 11, 2019.
- JÚDICE, Lucas Pimenta; NYBO, Erik Fontenele. Startups Law (*Direito das Startups*). Juruá, 2016.
- KASHYAP, Manoj K.; WEBER, Grégory. How emerging technologies will change financial services (*Como tecnologias emergentes mudarão os serviços financeiros*). In: CHISHTI, Susanne; BARBERIS, Janos. The Fintech Revolution: The handbook for financial startups (*A Revolução Fintech: O manual das startups financeiras*). Rio de Janeiro: Alta Books Editora, 2017.
- KESSLER, Luiz Felipe. Know some of the biggest Brazilian fintechs (*Conheça algumas das maiores fintechs brasileiras*). Available in: <https://seucreditodigital.com.br/maiores-fintechs-brasileiras/>. Accessed on: June 08, 2019.
- LANA, Henrique Avelino. Partial dissolution in limited liability companies: Economic analysis on the inclusion of advances in the determination of assets (*Dissolução parcial nas sociedades limitadas: Análise econômica sobre a inclusão do aviamento na apuração de haveres*). Belo Horizonte: Arraes Editores. 2012.
- LANA, Henrique Avelino. Bankruptcy and Corporate Recovery: Economic analysis of law (*Falência e Recuperação de Empresas: Análise econômica do direito*). Belo Horizonte: Editora D'Plácido. 2017.
- LANA, Henrique Avelino. Limited Societies: A Reading Via Law And Economics (*Sociedades Limitadas: Uma Leitura Via Law And Economics*). In: SCIENTIA IURIS, Londrina, v. 18, n. 1, p. 9-43, jul. 2014. Available in: <http://www.uel.br/revistas/uel/index.php/iuris/article/viewFile/15206/14724>. Accessed on: March 10, 2018.
- MANKIWI, Gregory. Principles of Microeconomics (*Princípios de Microeconomia*). Tradução: Allan Vidigal Hastings. São Paulo: Cengage Learning. 2009.
- MARGARIS, Spiros. The fintech supermarket - the bank is dead, long live the bank! (O supermercado de fintech – o banco está morto, vida longa ao banco!) In: CHISHTI, Susanne; BARBERIS, Janos. The Fintech Revolution: The handbook for financial startups (*A Revolução Fintech: O manual das startups financeiras*). Rio de Janeiro: Alta Books Editora, 2017.
- MORETTI, Eduardo; OLIVEIRA, Leandro Antônio Godoy. Startups: Relevant legal aspects (*Startups: Aspectos jurídicos relevantes*). Lumen Juris, 2018.
- MENAT, Rébecca. Why are we so excited about FinTech (*Por que estamos tão animados com FinTech*). In: CHISHTI, Susanne; BARBERIS, Janos. The Fintech Revolution: The handbook for financial startups (*A Revolução Fintech: O manual das startups financeiras*). Rio de Janeiro: Alta Books Editora, 2017.
- OIOLI, Erik Frederico; SILVA, Rafael Toni; ZILIOTI, Matheus. Fintechs and the regulation of the national financial system (*Fintechs e a regulação do sistema financeiro nacional*). In: OIOLI, Erik Frederico (coord.). Law Manual for Startups (*Manual de Direito para Startups*). São Paulo: Thomson Reuters Brasil, 2019.
- GANZER, Paula Patrícia. et al. Fintechs startups: an analysis from the innovation radar (*Startups fintechs: uma análise a partir do radar da inovação*). Available in: https://www.researchgate.net/publication/323199144_STARTUPS_FINTECHS_UMA_ANALISE_A_PARTIR_DO_RADAR_DA_INOVACAO. Accessed on: June 10, 2019.
- PIMENTA, Eduardo Goulart. Corporate Law (*Direito Societário*). Campus Jurídico. Rio de Janeiro: Campus Jurídico. 2010.
- PIMENTA, Eduardo Goulart; BOGLIONE, Stefano. Principles and Fundamental Concepts of Economic Analysis of Law (*Princípios e Conceitos Fundamentais da Análise Econômica do Direito*). In: MARÇAL; Antônio Cota; PIMENTA;

Eduardo Goulart; NUNES, Maria Emília Naves; MAGALHÃES, Rodrigo Almeida (Org.). Principles in the Construction of Law (Os Princípios na Construção do Direito). Rio de Janeiro: Lumen Juris, 2013.

PIMENTA, Eduardo Goulart; LANA, Henrique Avelino Rodrigues de Paula. Economic Analysis of Law and Its Relationship with Brazilian Civil Law. In: Journal of the Faculty of Law of the Federal University of Minas Gerais (*Análise Econômica do Direito e Sua Relação Com o Direito Civil Brasileiro*). In: *Revista da Faculdade de Direito da Universidade Federal de Minas Gerais*. n. 57. p. 85-138. Belo Horizonte: Jul/Dec, 2010.

PINHEIRO, Armando Castelar. Law and economics in a globalized world: cooperation or confrontation? (*Direito e economia num mundo globalizado: cooperação ou confronto?*) Law and economics (Direito e economia). São Paulo: IOB Thomson, 2005.

PINHEIRO, Armando Castelar; SADDI, Jairo. Law, economics and markets (*Direito, economia e mercados*). São Paulo: Elsevier Campos. 2005.

RIBEIRO, Márcia Carla Pereira; GALESKI, Irineu Júnior. General Theory of Contracts. Business Contracts and Economic Analysis (*Teoria Geral dos Contratos. Contratos Empresariais e análise econômica*). Rio de Janeiro: Elsevier. 2009.

SALAMA, Bruno Meyerhof. What is "Law and Economics"? (*O Que é "Direito e Economia"?*). In: TIMM, Luciano Benetti (Org.). Law & Economics (Direito & Economia). 2ª edição. Porto Alegre: Livraria do Advogado, 2008;

SANTOS, Ricardo Paulo Henrique dos. The Fintech in the Millennials generation (*As Fintech na geração Millennials*). Available in: https://comum.rcaap.pt/bitstream/10400.26/23184/1/RicardoSantos_ISG.pdf. Accessed on: June 03, 2019.

SZTAJN, Raquel. Law & Economics. In: SZTAJN, Raquel; ZYLBERSZTAJN, Décio (Org.). Law and Economics. Economic analysis of law and organizations (*Direito e Economia. Análise econômica do direito e das organizações*). Rio de Janeiro: Elsevier. 2005.

SZTAJN, Raquel; ZYLBERSZTAJN, Décio. Law and Economics: Economic analysis of law and organizations (*Direito e Economia: Análise econômica do direito e das organizações*). Rio de Janeiro: Ed. Campus. 2005;

VIANNA, Fernando Ressetti Pinheiro Marques; BARROS, Letícia Lins de Souza. Fintechs and traditional banks: partnership or competition? (*Fintechs e bancos tradicionais: parceria ou competição?*). Available in: <https://webcache.googleusercontent.com/search?q=cache:XJzyxShgLN0J:https://www.facet.br/gc/artigos/completo.php%3Fartigo%3D129%26formato%3Dpdf+%&cd=1&hl=pt-BR&ct=clnk&gl=br>. Accessed on: July 15, 2019.

Recebido/Received: 23.10.2019.

Aprovado/Approved: 05.06.2020.