



THE EVOLUTION OF MICROCREDIT IN BRAZIL AND THE NEW TECHNOLOGIES

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Summary

This article shows a study on microcredit in Brazil and its evolution over the decades and how this social policy is fundamental for the country. For, among other factors, the objective of microcredit is to reduce social inequality and foster entrepreneurship in less favored classes, thus showing, as evidence, the possible benefits that the use of technology can have in the modality. The methodology is structured in 3 pillars, being a descriptive research in relation to the objectives, in the aspect of the technical procedures it is bibliographic and being qualitative in the approach of the problem. The result shows that the use of technological innovation in the microcredit segment is still primary, demonstrating how it can be used to reach a larger number of customers and reduce defaults, facilitating and reducing red tape for small entrepreneurs. This research contributes to present a vision of the importance of technological innovation in a part of the financial sector, where it will be necessary for financial institutions to adapt to this evolution.

Key words: Microcredit. Financial Inclusion. Technology.

1. INTRODUCTION

Taking into account the number of unemployed in Brazil and in the world, several proposals are continuously debated in order to eradicate / reduce poverty and misery. In order to try to reduce social inequality, there are some initiatives related to microcredit to leverage local social and economic development, appropriating, mainly, the advances in technology (Bastos Filho, Pimenta Magalhães, Cunha & Silva, 2016). Governments, banks, startups, fintechs and others, have increasingly targeted the low-income population they wish to undertake, as jobs are created and the country is developing economically.

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With the emergence of a new era, sustained by information, innovation and transformation, new products and suppliers are looking for space and, in doing so, bringing differentiated solutions to the most diverse sectors, including the financial sector. This results in a change in the profile of customers and companies that take advantage of this moment to create disruptive innovation with new business models (Christensen, 2015).

The evolution of technology, access to information, the internet and other means of communication is getting easier and cheaper. In addition, it is increasingly common to search for new solutions that promote financial inclusion through the emergence of marketplaces, startups and fintechs that, generally, have a different purpose in relation to traditional financial institutions, proposing new alternatives for the client (Diniz, 2010).

Aiming to provide an attractive, convenient, consistent and adequate experience to daily life, there is a digital experience in financial services, characterized by the integration of services and channels, by offering personalized and customized solutions, by providing strong attention to the individual needs of the client. customer and for the efficiency and high quality of services (Cordeiro, Oliveira & Duarte, 2019).

Microcredit emerged with the intention of minimizing social inequality and the number of unemployed, in addition to encouraging entrepreneurship. With this new premise of innovation, we have as a research question the proposal to understand how the new technologies in the financial sector can influence access to microcredit ?. Given this scenario, the purpose of this article aims to identify the paths and tools, as well as the possible benefits that the use of new technologies can bring to different types of microentrepreneurs.

Therefore, the article is structured as follows, in addition to this introduction, in the second part the theoretical foundations of the study are presented; in the third section the basic methodology is demonstrated, then the analyzes and discussions in part four and, finally, in the last section, the final considerations.

2. THEORETICAL REFERENCE

2.1 Microcredit

The emergence of microcredit comes from a revolution in economic thinking with Keynes and improved by Muhammad Yunus at the end of the last century (Almeida, 2009).

According to Yunus and Jolis (2000), the microcredit experience consists of a methodological basis that differs from that applied by traditional institutions and aims to provide assisted credit, that is, contrary to the traditional system in which the customer goes to the bank, the agents go to the site to provide the necessary support for the microentrepreneur.

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Yunus realized that the financial needs were extremely low, and that the small amortizations and the solidary guarantee, intragroup of debtors, would guarantee a very low level of default. So, his financial revolution was to give credit to work, when capital was always given (Costa, 2010). The experiment was hugely successful, loans were repaid and generated new orders. Thus, inspired by the positive return, Yunus decides to found Grameen Bank with the purpose of providing money in the form of a loan to people who would not obtain such capital from traditional banks (Silva, 2007).

The term over the years has gained some definitions with certain differences. According to Gulli (1998), microcredit consists of small scale financial services, that is, that involve low values, while Schreiner (2001) does not define the term by the amount borrowed, but rather as the credit granted to low-income people. In other words, the credit contractor generally uses the benefit to make the necessary investments for his business to progress and give him better financial conditions.

For Barone, Lima, Dantas and Rezende (2002), microcredit is the granting of low-value loans to small informal entrepreneurs and micro-enterprises without access to the traditional financial system, mainly because they are unable to offer real guarantees. Being a credit for production (working capital and investment) and is granted using specific methodology. Corroborating this view, we have Silveira Filho (2005) who describes microcredit as a simplified loan program, with a minimum of bureaucracy and without demands for collateral. However, it is desirable, however, that the business has the potential to remain and grow with an initial impulse, that is, it has financial viability.

2.2 Microcredit in Brazil: emergence, evolution and programs

According to Bijos (2004), microcredit is based on finding ways to create jobs and reduce disparities between income and wealth. This modality is characterized by simplicity and agility in the analysis, approval and release of funds.

In Brazil, it is aimed at popular micro-entrepreneurs, formal and informal, who have small productive activities, with annual sales of up to R \$ 200 thousand and aims, according to Melo (2008), to enable business opportunities in social layers of lower income, usually without access to the traditional financial system.

According to Law 13,636, of 2018, there are some Brazilian entities authorized to operate on the model of the National Oriented Productive Microcredit Program (PNMPO), they are: Caixa Econômica Federal; National Bank for Economic and Social Development (BNDES); commercial banks; multiple banks with a commercial portfolio; development banks,

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central credit unions; development agencies; credit companies for microentrepreneurs and small businesses; civil society organizations of public interest; credit agents constituted as legal entities, under the terms of the National Classification of Economic Activities (CNAE); and fintechs, so understood companies that provide financial services, including credit operations, through electronic platforms. These institutions, according to PNMPO general information, had a total volume of loans granted in a total of more than R \$ 10 billion and the number of microcredit operations was 4,739,928 in 2018 alone, according to Table 1.

Table 1 - Volume of credit and microcredit (2008-2018)

General Execution			
Year	Amount Granted R		Customers Served
	\$	Contracts Made	
2008	3,028,311,116	1,280,680	1,430,097
2009	3,620,727,053	1,620,656	1,654,186
2010	4,488,115,368	1,966,718	2,071,607
2011	5,761,258,771	2,576,559	2,674,157
2012	8,620,128,679	3,814,781	3,953,406
2013	12,681,328,920	5,713,091	5,664,941
2014	13,767,209,555	5,667,287	5,552,080
2015	12,359,966,047	5,201,992	5,200,781
2016	9,263,808,770	4,699,476	2,514,576
2017	8,644,549,202	4,300,728	2,248,981
2018	10,356,731,697	4,739,929	2,430,934
Total	92,592,135,178	41,581,897	35,395,746

Source: Ministry of Economy (2019).

Table 2 shows which are the main institutions authorized to grant PNMPO credit, the annual amount granted per institution and the number of clients who were served, taking into account the year 2018.

Table 2 - Offers by private entities qualified in PNMPO 2018

Partners	Amount Granted R	
	\$	Customers Served
Development Agency	83,770,546	45,431
Commercial Banks	23,114,946	40,591
Cooperatives	369,581,951	157,857
OSCIP	454,157,407	260,145
SCMEPP	191,255	171
Grand total	930,816,105	504,195

Source: Ministry of Economy (2019).

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In order to elucidate the greatness of microcredit, the table above represents the execution of the PNMPO between the years 2008 and 2018 as an example. It is noted the enormous importance of the program, which, in this period alone, carried out more million microcredit operation contracts and a total granted value of 92 billion reais. However, according to information from the Ministry of Economy, the modality is still little used, not using even 10% of its potential number of borrowers.

In view of the figures presented, it can also be seen that the highest amounts granted are between the years 2013 and 2015, a period of great recession and economic instability in Brazil. This information corroborates the study by Nunes, Sales and Carvalho (2019), where the increase in the number of unemployment shows that, generally, one of the most effective ways to get around this problem is entrepreneurship, therefore, when microcredit is most needed.

The following is a timeline of some of the most important microcredit programs in Brazil, whose basic idea was to offer the poorest populations financing opportunities for local productive activities.

Northeastern Union of Assistance to Small Organizations (UNO)

According to Monzoni Neto (2008), it can be said that the first contact with what resembled microcredit in the country occurs with the emergence of the Northeastern Union of Assistance to Small Organizations (UNO). At the beginning of the seventies, with the increase in the country's poverty level, the Brazilian government, together with international organizations, started looking for alternatives to improve the lives of the population that was unemployed or had a very low income (Bijos, 2004). In 1973, in Recife, we had the first microfinance experience led by UNO and had some objectives, such as: training clients in basic management issues, checking the results of joint credit operations, research on the profile of individual microentrepreneurs and the impact of credit in the urban context. Brazil unlike other countries in Asia and Latin America, it had a financial system that operated in a traditional way, in a context of high inflation rates, government and subsidized credit and different types of consumer credit and, therefore, it still did not have all the characteristics microcredit. In the following years, however, the first microfinance institutions were created, based on economic stabilization and the interest of municipal and state governments in supporting the creation of non-governmental organizations (NGOs) specialized in microcredit.

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CEAPE Network

In 1987, the largest and oldest network of microcredit organizations in Brazil, the Support Center for Small Enterprises (CEAPE), was created. The project was specialized in supporting low-income people, who owned small businesses, through credit and training. The consolidation of the organization, originally from Rio Grande do Sul, stimulated the extension of the experience to other states, mainly in the Northeast, at the end of the decade branches are still created in Maranhão and Rio Grande do Norte.

The focus of the program was oriented productive credit, based on sustainability and support for small entrepreneurs, in their entirety from the informal sector (Alice & Ruppenthal, 2012). Like the UNO Program, CEAPE also involved the partnership of local business organizations and sought to train its customers (Almeida, 2009).

The organization expanded throughout Brazil and, as Almeida (2009) informs, in the 2000s 13 CEAPes were already constituted. All of these organizations are non-profit civil entities, specifically aimed at supporting small businesses, defining themselves from the perspective of promoting work, income and citizenship.

Women's Bank

In 1989, the microcredit program was inaugurated in Bahia with Banco da Mulher and supported by the United Nations Children's Fund (UNICEF) and the Inter-American Development Bank (IDB). The program used the methodology of Solidary Groups and initially served only the female audience, today it also serves the male audience. AND was born with the objective of offering training course and financial credit with support to commercialization to entrepreneurs (Bijos, 2004). The bank currently has representation in the three southern states, Amazonas, Minas Gerais, Rio de Janeiro and Bahia, and is affiliated to Women's World Banking.

According to Almeida (2009), the services offered by Banco da Mulher are: financing, credit monitoring advice, support for marketing and product quality analysis.

CrediAmigo

Banco do Nordeste (BNB) microcredit program, CrediAmigo, created in 1997, aims to act as an agenta catalyst for sustainable development providesndo credit to small entrepreneurs in the Northeast, Espírito Santo and northern Minas Gerais (Alice & Ruppenthal, 2012). Like

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the Banco das Mulheres, the work is carried out using the methodology of Solidary Groups and, simultaneously with the granting of credit, it offers managerial training for borrowers.

According to Neri and Buchmann (2008), CrediAmigo is considered as the Brazilian Grameen Bank, being a national reference and an internationally recognized success case. The program has been helping to combat poverty for years and is seen as a valuable public policy instrument, always aiming at social, productive and financial inclusion. In a study carried out by Soares (2012), it appears that the average annual speed of exit from poverty varies between six and eight percent until the fifth year of the program. This excellent result can be observed due to some variables listed by Souza (2010): the competence and commitment of the managers and technical teams of BNB responsible for the program; the creation of a business unit with its own management; the broad knowledge of the public and the economy of the Northeast region; the use of joint guarantee technology that provides greater security for both the customer and the bank, reducing transaction costs and avoiding default; the importance of the credit agent, whose function is to provide personalized service to customers; and the creation of differentiated products for the program's customer profile.

VivaCred

Created in Rio de Janeiro in 1996 on the initiative of the Viva Rio Movement and with the aim of providing credit for microenterprises in needy communities in the city of Rio, the institution is considered a non-governmental organization supported by Fininvest and BNDES (Alice & Ruppenthal, 2012).

Its operations started in the Rocinha community and later expanded to three other branches: Maré, Rio das Pedras and another that serves low-income clients in the center and the south of the city.

According to Rocha (2001), institutionally, as it is an NGO, it only transfers funds to finance projects at more favorable interest rates, in addition, VivaCred still receives support from Caixa Econômica Federal to open an account for its members. customers.

PNMPO Program

With the objective of supporting and financing the productive activities of small entrepreneurs, in 2005, the most recent institutional change in the Brazilian microfinance sector emerged, the National Program for Oriented Productive Microcredit (PNMPO). The resources directed to the PNMPO come from the Workers' Assistance Fund and the share of demand deposits from financial institutions, with the purpose of encouraging the generation of

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employment and income among popular microentrepreneurs. The program provides low-value loans to small entrepreneurs and micro-enterprises without access to the National Financial System.

According to Law No. 11,110, of April 25, 2005, the PNMPO is coordinated and executed by the Ministry of Labor and Employment and aims to encourage the generation of work and income among popular microentrepreneurs. Its purpose is to make resources available for oriented productive microcredit.

2.3 Digital Economy and Microcredit

The phenomenon of financial inclusion and microcredit are socioeconomic transformations, which are immersed in the digital revolution, which is the technological advance driven in recent decades (Carballo & Dalle-Nogare, 2019). This digital economy has enormous potential and an undeniable scope, since technology aims to be the most viable means of addressing issues of scope and service provision in peripheral areas (Ontiveros, Enríquez, & López, 2014).

The technology appears with a multitude of objectives, either to facilitate some operations, to promote access to information, to offer comfort, among others. Consequently, it changed the way of interacting, operating, thinking, organizing and proceeding in certain situations. In relation to microcredit operations, Rhyne and Otero (2006) understand that technologies tend to promote significant changes in their operating formats and believe that some areas, such as: payment systems and credit methodologies, will benefit the most.

The technology can bring greater convenience to its user audience, provide cheaper and more comprehensive services, have the capacity to reach a population located in more remote locations and enable greater security for the entrepreneur and client. According to Latife (2006), information technology, too, will allow the microfinance sector to become more transparent and operationally more efficient. Despite numerous benefits, there is still not a very strong investment - by the large Brazilian financial institutions - in technology on the microcredit sector in comparison to other products offered by them. The low appetite for risk and the bureaucracy present in these institutions form a barrier, preventing a better offer of microcredit. Such complications can be noticed due to the difficulty of accessing information from the microcredit public. These are generally people from lower social classes and non-bankers and, consequently, information about their profile, registration or financial data are scarce or nonexistent.

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Microfinance (microfinance) is an instrument with the objective of combating poverty through the creation of mechanisms that allow the provision of credit and savings to people with low purchasing power. Access to credit is just one of the possibilities that includes the microfinance activity, since there are other tools available for access to financial products: bank deposits, means of transfer or insurance (Camacho-Beas, 2010; Orozco-Gutierrez, 2019) .

According to Barone et al. (2002), the potential market for microfinance in Brazil will have to face the structural constraints of the industry, such as: dominance and dissemination of microfinance technologies, training of human resources, management tools and information systems, improvement of the regulatory framework to facilitate and to induce its growth, in addition to the development of new performance models more suited to the reality of small municipalities. However, to reach such an audience is not a simple task, an innovative break is needed.

In the view of Rhyne and Otero (2006), there are four drivers (means) of change in the microcredit universe: competition between suppliers, legal environment, entry of actors with explicit commercial interest and the greater and better use of technology. Thus, technology has been an innovation tool and has been developing the scope of financial services. It can be said that technology is revolutionizing the access and use of financial services, in the same way that the internet and mobile devices have transformed the way people interact (The Economist Intelligence Unit, 2018).

2.3.1 Fintechs and Technological Innovations

The development of new digital technologies and the rapid expansion of technological infrastructure is changing the global financial scenario, these initiatives that make use of advanced technologies are based on access to the internet and fintechs.

The startups with a focus on financial technology, the fintechs, have been highlighted in recent years for the rapid development of solutions for the main bottlenecks of the traditional financial market. In the view of Partyka, Lana and Gama (2020) through digital technologies, these companies are helping to create more robust credit risk profiles and to improve the understanding of the complex market of Micro, Small and Medium Enterprises (MSMEs). The use of advanced analytics platforms are using big data taken from digital registrations to build more agile credit assessments, this digital automation has the ability to streamline underwriting processes, in addition to the organizational decision-making process, consequently, reducing various costs financial institutions (Partyka et al., 2020).

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By increasing the use of digital technologies, fintechs find several innovative ways to improve customer service, raise capital, facilitate electronic payments and analyze large volumes of data. Thus, they manage to be more agile compared to traditional financial institutions, and adapt more quickly to the needs of the market (Hoder, Wagner, Sguerra & Bertol, 2016).

This efficiency obtained through the use of disruptive technologies is providing more attractive financing alternatives for MSMEs. These financial innovations are deepening the understanding of the heterogeneous MSMEs market, in order to reduce operating costs, increase operating margins, improve risk measurement and management, bringing a holistic view of the business potential (Hoder et al. , 2016).

In summary, these innovations are modifying the credit markets in several ways, that is, they are contributing to an even greater evolution of the market, since information hitherto difficult to be measured or evaluated, is now available and quantifiable.

3. METHODOLOGY

The article in question is based on three pillars of a research, so that the research is descriptive, bibliographic and qualitative. The first stage consists of the descriptive aspect of the article, which allows identifying and obtaining information about the characteristics of a particular problem or research question, in addition to evaluating and describing the characteristics of the relevant questions. So that there is a concern to just observe the facts, record them, analyze them, classify them and interpret them, without making any interference or modification of the facts.

Based on theoretical reference information, data obtained from previously prepared materials such as books, reports and scientific articles and with the aim of only collecting previous information and knowledge about microcredit and technological innovations, the research has the characteristic of a technical procedure as a technical procedure. bibliographic research.

Therefore, the second step was the bibliographic review of the themes that support this article, which are microcredit in Brazil and new technologies in the credit market. In addition to serving as a basis, to understand the concepts involved and how they are related, reviewing the bibliography relevant to these themes allowed the elaboration and presentation of a theoretical structure that dialogued with the discussions raised by researchers on these themes.

Seeking to analyze the reflections of the reality of microcredit, the study employs a qualitative approach methodology. In this third part of the methodology, it is necessary to

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interpret and relate the information and data in order to assess their relationship with technological innovations in the credit market. This justifies the need for a qualitative approach, which uses a subjective method to explore and understand the meaning that the new elements attribute to a situation or phenomenon.

In the first part, the article presents elements of relevance on microcredit with a focus on financial inclusion and social and economic development, in addition to listing the main microcredit programs developed in Brazil. In the second part, he reports and discusses possible improvements in the microcredit expansion process by using innovative forms of technology and how it facilitates entrepreneurship and development.

4. ANALYSIS AND DISCUSSION

The financial sector, specifically banks, has historically been the pioneer of major financial innovations. One can give the example of the advent of credit cards in the 1950s and the subsequent invention of ATMs, just a decade later, which totally changed financial interactions, culminating in the most recent forms of electronic transactions (Carballo & Dalle-Nogare, 2019).

However, in recent years, traditional banks have lost innovative space to new financial technology companies (Fintech), bank innovation seems to have been in the background (Chishti, Barberis & Vidal, 2017). Within digital finance, the authors Gomber, Koch and Siering (2017) believe that fintechs as companies in the financial industry are the only ones that have innovative and disruptive potential in financial services, as they use internet-based technologies to provide their services.

In this sense, in order to have a good production or provision of services, a company needs good management, great employees and, generally, modern machines. Therefore, numerous services related to technology are already being widely used in various branches and sectors around the world. This is the case, for example, with the implementation and expansion of the use of big data, a technology that brings significant changes in the methods of obtaining, presenting and evaluating information (Blumberg, 2018). Through this new technology, platforms have their potential for information analysis expanded, managing to verify a larger volume of data than in the traditional method, avoiding possible fraud and optimizing processes (Evans & Schmalensee, 2016).

According to Yan, Yu and Zhao (2015), the use of big data consists of processing large volumes of data from various sources, reducing manual labor, the use of several other tools in the process and, consequently, the operational cost. As a result of this cost reduction on lending

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platforms, the lender obtains higher returns and borrowers enjoy lower interest rates than those traditionally negotiated (Bader and Savoia, 2013). This business model can offer financial services that are more flexible, secure and efficient than those provided by traditional financial institutions (Lee & Kim, 2015).

It is important to note that traditional banks already use this type of technology, however, it is possible to mention the so-called fintech institutions as large users. In Brazil, these companies are bank correspondents of traditional institutions (Perez, 2017). Due to the characteristics of Brazil (number of inhabitants, GDP, population without access to the Financial System and great social inequality), investment in this type of enterprise is attractive. Explicit fact when there is an increase in the number of fintechs in Brazil. In August 2015, there were 54 companies and, currently, the country has more than 770 fintechs and financial efficiency initiatives spread throughout the territory (Fintechlab. 2020).

In relation to credit methodologies, it is possible to mention as a possible and probable benefit the use of electronic record stores of transactions that allow imputing more detailed information about customers and benefits offered, making the process more reliable, thus offering microcredit. may be more assertive about his return (Diniz, 2010).

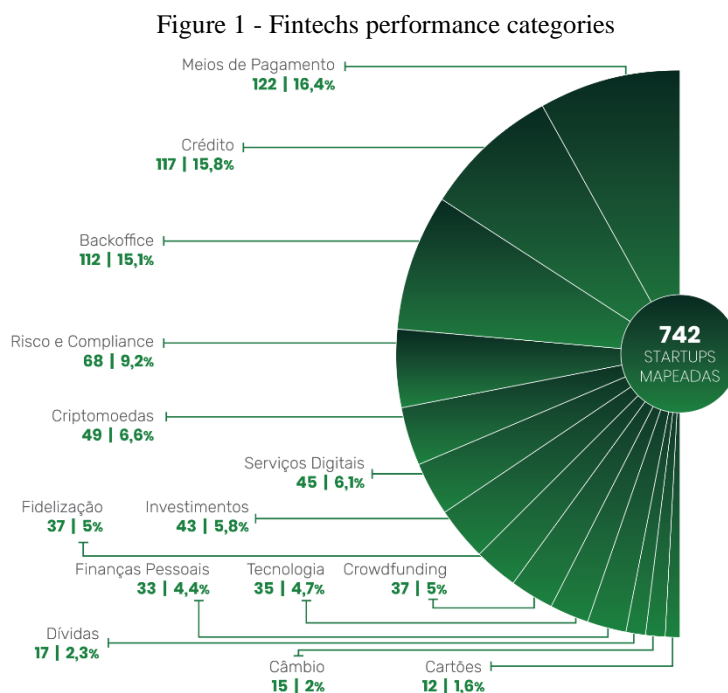
In other words, greater convenience, cheaper services for customers, the ability to reach customers in more remote locations and increased security are arguments usually described as advantages brought by information technologies in the microfinance sector, thus, information technology will allow the microcredit sector to become more transparent and operationally more efficient (Latifee, 2006; Rhyne and Otero, 2006).

According to a study by BIS - Bank for International Settlements (2017) the volume of credit made available by fintechs today still represents a small portion within the financial system, however it is clear that an increase in this participation will bring benefits, be it in access to alternative sources of financing and / or pressure for efficiency and mitigation of uncertainties. On the other hand, the same study shows that this new dispute of players in the credit market may imply risks such as the worsening of credit standards, due to the pressure of competition with banks, and greater importance of cyber risks. for the financial system.

In a survey of Brazilian fintechs in the year 2020, a total of 742 mapped startups were found. Among the three main services provided are means of payment, credit and backoffice, with 122 companies (16.4%) operating in the means of payment segment, 117 companies (15.8%) in the credit sector and 112 (15, 1%) provide back office services (District, 2020). This information corroborates the data from the Ministry of Economy on the increase in the volume of credit and microcredit in recent years, but in a way it is still concentrated. Figure 1 presents

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a summary of this division of how fintechs are distributed in the categories of operations in the financial market.



Source: Distrito Fintechs Report (2020).

In accordance with the Microcredit Law No. 13,636, of 2018, the use of digital and electronic technologies that can replace personal contact for direct relationship with entrepreneurs becomes effective. However, the first contact must remain in person (credit agents) for guidance and obtaining credit. According to Barone et al. (2002), the productivity of credit agents was still very low in most of these entities, which meant that microfinance technologies were not yet consolidated and disseminated.

With the above provisions, there is a certain evolution, but it could be further explored. In a discussion held in 2018 by the Economic Development Commission of the Legislative Chamber, it is reported that commercial banks have hundreds of credit agents, and that they are responsible for 70% of the cost of microcredit. That is, if there is an increase in the use of technology for the sector, there is a great chance of decreasing the final cost of microcredit for the entrepreneur. In the study by Bader and Savoia (2013), virtual media has become quite attractive, especially for the public located far from physical access points. New technologies have the ability to eliminate the need to travel long distances to a financial institution, in addition to decreasing the costs of providing services,

It is important to note that microcredit itself is not a compensatory instrument and, therefore, does not have the power to leverage the country's economic growth alone. However,

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if well articulated and planned through public policies, it can fulfill an important role and assist in the search for better socio-spatial development (Souza, 2004). New technologies and microcredit can be considered as a strong tool that, together with other economic and social elements, can help reduce unemployment, generate income and, consequently, boost the economy.

5. FINAL CONSIDERATIONS

The purpose of this article was to demonstrate, based on bibliographic research, the importance of microcredit and its evolution, and the role of disruptive technologies in this economic sector. The main types of microcredit in the country were listed and technological innovations and their benefits were identified. It is noted in the light of the study that, despite the evident benefits, the promotion of entrepreneurship, job creation and reduction of social inequality, the modality is still not widely used. Thus, the objective was achieved in order to show how technology can be a powerful ally in relation to access to microcredit in the country.

It is notorious that there are still problems in making credit available to small entrepreneurs. The lack of real guarantees, insufficient data or documents that prove customer information and the danger of default are examples of factors that make it impossible for institutions to make a favorable decision to provide credit.

It was observed that there was a great growth about the credit modality for PMPE companies during the years. This was due to the emergence of technological innovations and several business models and institutions (fintechs) caused microcredit to be spread over a large part of the Brazilian territory, providing an opportunity for thousands of microentrepreneurs (Hoder et al., 2016; Partyka et al. , 2020).

It is evident, however, that there is still a lot to be done for microcredit and technology can be a great ally. The use of modern solutions can favor the growth of the sport in several sectors such as: access to information; customer service and communication; payment systems; credit methodologies; transport; creation and sale of digital products; among many others (Bader and Savoia, 2013).

With this preliminary analysis, we reflect on the magnitude of financial technologies today, and how these innovations can impact financial inclusion and economic development (Lee and Kim, 2015). For future research on the subject, it suggests that the volume of loans and access to microcredit be analyzed and compared, distinguishing between traditional banks (large, medium and small) and fintechs. In addition to the different paths to be adopted to promote technological development with a view to financial inclusion.

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