# Federal Public Banks: Credits To Foster Brazilian Entrepreneurship

Eric Davi Coelho Lobato<sup>1</sup>; Fernando Jorge Ericeira<sup>2</sup>; Maria de Nazaré dos Anjos Barros<sup>3</sup>; Sérgio Roberto Pinto<sup>4</sup>; Tatiana Alves de Paula<sup>5</sup>.

- ¹ Bacharel em Administração pela Universidade Estadual do Maranhão (UEMA). Cidade Universitária Paulo VI, Av. Lourenço Vieira da Silva, n.º 1000, Bairro Jardim São Cristóvão, CEP: 65055-310 SÃO LUÍS/MA/BRASIL. e-mail: edc.lobato@gmail.com
- <sup>2</sup> Doutorando em Ciências Contábeis e Administração pela FUCAPE Business School. Docente da Universidade Federal do Maranhão (UFMA), Av. dos Portugueses, 1966 Vila Bacanga, São Luís MA, 65080-805. SÃO LUÍS/MA/Brasil, e-mail: prof.fernandoericeira@gmail.com.
- <sup>3</sup> Doutoranda em Ciências Contábeis e Administração pela FUCAPE Business School. Docente da Universidade Estadual do Maranhão (UEMA). Cidade Universitária Paulo VI, Av. Lourenço Vieira da Silva, n.º 1000, Bairro Jardim São Cristóvão, CEP: 65055-310 SÃO LUÍS/MA/BRASIL. e-mail: nazareuema@gmail.com
  - <sup>4</sup> Doutor em Ciências Contábeis e Administração. Docente da Universidade Federal do Maranhão (UFMA), Av. dos Portugueses, 1966 Vila Bacanga, São Luís MA, 65080-805. SÃO LUÍS/MA/Brasil, e-mail: sergio.pinto@ufma.br.
- <sup>5</sup> Doutoranda em Ciências Contábeis e Administração pela FUCAPE Business School. Docente da Universidade Estadual do Maranhão (UEMA). Cidade Universitária Paulo VI, Av. Lourenço Vieira da Silva, n.º 1000, Bairro Jardim São Cristóvão, CEP: 65055-310 SÃO LUÍS/MA/BRASIL. e-mail: tatiana.paula22@gmail.com

## **Summary**

The research aims to demonstrate the contribution of federal public banks to enable resources to foster entrepreneurship. The investigation has the following research problem: how do federal public banks contribute with resources to enable the promotion of entrepreneurship? The methodology used was exploratory, qualitative and descriptive. In the data collection, information was collected from the websites of the investigated banks. For the treatment of the data, the content analysis technique was adopted, which allows the interpretation of the information in order to capture its meanings considering the analyzed context. With the results obtained, it was noted that the federal public banks have 310 lines of credit, in which these lines are subdivided to finance entrepreneurial activities in rural and urban areas, in addition to 03 lines of credit being destined for the financing of entrepreneurial projects. The result of the survey reveals the lines of credit available by banks that are conducive to encouraging entrepreneurship, and also fosters economic development. The federal government, through the constitutional funds, makes resources available to public banks and each bank is responsible for a certain fund. Banks use these resources to invest in the form of credit lines. The practical contributions, for the entrepreneur who can be PF, PJ and PF/PJ, the study provides the lines of credit that can be applied in their ventures in order to help in the growth of the business. In addition to informing society how much the government made available in 2022 for the financing of entrepreneurial activities.

Keywords: Federal Public Banks; Entrepreneurship; Constitutional Funds; Economic Development.Date of Submission: 19-02-2024Date of Acceptance: 29-02-2024

## I. Introduction

In colonial Brazil, an exact statistic was made about the amount of metallic currency circulating in the country in 1808. It corresponded to a low circulation, in turn, the amount of currency that circulated in a given region depended on the nature of the economic activities that were carried out (Carrara, 2020). Credit entered

the economic historiography through the deficit in the circulation of metallic currency, the form that guaranteed the honor of the negotiation made (credit) was the feeling of probity, the principle of taking care of the word given in the condition of good morality was what ensured the surplus agent to receive his right from the deficit agent (Viana, 2005). The purpose of credit is to finance economic activities.

With the entry of credit into the market to finance economic activities, Brazilian federal public banks were created, which operate in at least 04 (four) dimensions: in the sector, sustaining the industrial, rural and real estate segments, allocating credit cycles; regional development; in the countercyclical action of the supply of credit and the inclusion of the classes less favorable to banking access (Araujo & Cintra, 2011).

The creation of Brazilian federal public banks was extended in order to develop the country in several ways, one of which is the granting of credit. In this sense, credit is raised in federal banking institutions when the customer meets the requirements required by the banks (Costa Neto, 2004). However, some challenges are faced by entrepreneurs to have access to credit (SEBRAE/ES, 2020). The principle that guides research on credit in Brazil is the difficulty that entrepreneurs face in accessing credit (Mezzera & Guimarães, 2003). In context with the difficulties, there are two barriers that hinder the release of credit for the entrepreneur, namely bureaucracy and high interest rates, which make it difficult for the business to remain in the market (Ramos et al., 2019). There are forces capable of hindering the creation of an enterprise, such as: difficulties in the economic situation, location of the enterprise, bureaucracy with access to credit, technology, market, excessive competition and financial control (Fagnani, 2011).

The greatest difficulty encountered by the entrepreneur is characterized by economic policies, which due to lack of knowledge about credit lines, the entrepreneur is limited to obtaining credit with high costs or decides to abandon his enterprise due to lack of financial resources (Fagnani, 2011). From this perspective, the research problem is conceptualized as: how do federal public banks contribute with resources to enable the promotion of entrepreneurship? In this context, this study aims to demonstrate the contribution of federal public banks to enable resources to foster entrepreneurship.

The justification lies in the ability of this study to provide data to society regarding the constitutional and legal funds that each bank is responsible for managing and applying these resources in order to foster economic development through entrepreneurial activities. This data can be used in further research. In addition to presenting the lines of credit intended to foster entrepreneurship, providing the maximum amounts of financing, interest rates, the banks that offer these lines, the target audience that the due credit serves and the grace period for payment.

The article was structured, in addition to this introduction, in the second chapter a review of the literature was presented in order to highlight the methodology used and, finally, to present the analysis of the results, proposal of solution and final considerations.

#### II. Literature Review

Public banks play a key role in the development of the national financial system (Schapiro, 2017). The main activity of a public bank is the provision of credit for development, either through the provision of the organization's assets or through financial intermediation activities (Britto et al., 2013). In Brazil, the federal public banks are known, as shown in Figure 01.

| BANK  | ACRONYM |
|---|---------|
| BANK OF BRAZIL                                | BB      |
| CAIXA ECONÔMICA FEDERAL                       | CEF     |
| NATIONAL BANK FOR SOCIAL ECONOMIC DEVELOPMENT | BNDES   |
| BANK OF THE NORTHEAST OF BRAZIL               | BNB     |
| AMAZON BANK                                   | BASA    |

Figure 01: The Federal Banks of Brazil

Source: Bacen (2022)

The role of federal banks as development institutions is associated with the management of funds of a parafiscal nature, which enables stable sources of low-cost funds (Araújo & Cintra, 2011). Among the legally constituted funds for regional development are the following: the Constitutional Fund for Financing the Midwest (FCO) managed by BB; the Severance Fund (FGTS) managed by CEF; the Workers' Support Fund (FAT) administered by BNDES; the Constitutional Fund for Financing the Northeast (FNE) managed by BNB and the Constitutional Fund for Financing for the North (FNO) administered by BASA. The financial resources made available to the constitutional funds are raised from the public budget of the Union (Brasil, 1989 & 1990).

#### **ENTREPRENEURSHIP**

Entrepreneurship has become one of the main drivers of employment, ecological and market growth in a region (Alferaih, 2022). The development of a region flows from entrepreneurship that has the ability to

analyze an opportunity in the market and manages to develop something innovative to meet the needs of a certain group of individuals (Cristaldo et al., 2018).

Entrepreneurs introduce knowledge directly or indirectly, they are introducing innovative ideas and improvements to current practices in the market. Keynesian thinking is consistent that the government should maintain control over the depression of the business cycle, that is, encourage the development of enterprises (Cristaldo et al., 2018). The proper incentive on the part of the government is to provide credit in order to foster entrepreneurship.

The credits made available by banking institutions are considered a preponderant factor to foster entrepreneurship in a given region, however, some of these credits, because they require real guarantees for the granting of the loan, end up excluding the portion of the low-income population, and due to lack of knowledge of other lines made available by competing banks, choose to give up the desire to undertake due to lack of financial resources (Santos & Moreira, 2020).

Entrepreneurship and its relationship with government funding

For the government to foster entrepreneurship in a region, financial resources that come from the public budget are needed. The budgeting process consists of decision-making for the formulation of strategies aimed at achieving development (Abreu & Gomes, 2013). The public managers responsible for preparing the budget work with the proposal of preparing and ensuring that the initiatives are implemented, that is, verifying that the public budget is being used as planned (Migchelbrink & Walle, 2021).

In the Union, the annual budget covers the constitutional funds which are the FCO, FNE, FNO, FGTS and FAT. The Constitutional Funds were created by law and have as their purpose the economic and social development of these regions. These funds are administered by the federal banks, through the execution of financing programs for the productive sectors, in line with the respective regional development plans (Brasil, 1989 & 1990).

## THE ROLE OF BANKS IN ECONOMIC DEVELOPMENT IN OTHER COUNTRIES

Economic development can be described as a process characterized by sustainable economic growth at an accelerated pace relative to population growth. The skills of local actors also influence the economic development of a region, these skills are to analyze and understand changes in the environment, expanding their capacity for innovation and responding to challenges efficiently (Bezerra & Schlindwein, 2017). In this context, for economic development, financial resources introduced within the locality are necessary to foster economic activities.

A survey investigated how Islamic banks could influence the economic development of ten (10) developing countries, namely Bahrain, Egypt, Jordan, Kuwait, Pakistan, Qatar, Saudi Arabia, Sudan, Turkey, and the United Arab Emirates (UAE). Islamic banks within these countries have a high relevance to the local economic development of each country, through their financing in the entrepreneurial activities developed, in addition to these banks offering lower interest rates than other local banks (Daly & Frikha, 2016).

In India, banks play roles in mobilizing savings and allocating credit to production and investment. In Indian economic development, banks contribute by identifying entrepreneurs with the best business ideas and allocating credit to these ventures (Iqbal & Sami, 2017).

## III. METHODOLOGY

To achieve the objective of this research, that is, to demonstrate the contribution of federal public banks to enable resources to foster entrepreneurship, the content analysis technique described by Mendes and Miskulim (2017) was adopted as an interpretation of information in text in order to capture its symbolic meanings taking into account the analyzed context. The method is exploratory and qualitative, which allows, for example, to analyze the credit lines available by federal public banks and assess whether they are conducive to fostering entrepreneurship. According to Bansal et al. (2018), descriptive research provides *insights* for the discovery of new theoretical pathways. Therefore, a descriptive research was developed using secondary data.

This research had as its field of study the federal public banks, considering these organizations the main banks destined to the development of the Brazilian territory. As for the sample, there were the lines of credit available by banks that include Individuals (PF), Legal Entities (PJ) and lines that include both (PJ/PF). Data collection took place between August 2022 and January 2023. To obtain secondary information, the official websites of the federal public banks (Banco do Nordeste do Brasil, Banco da Amazônia, Banco Nacional de Desenvolvimento Social, Banco do Brasil and Caixa Econômica Federal) were visited, in total 310 (three hundred and ten) lines of credit.

The treatment of the sample data was initially carried out through coding, when the credit line reported for which public it is intended for (PF, PJ or PJ/PF), after this screening, another coding was taken into account,

knowing if the line was intended for the rural, urban or mixed area. Then, the maximum amounts available for each line were observed, as well as the interest rate and the grace period for payment. Microsoft Excel spreadsheets were used in order to organize the credit lines by area and target audience, in addition to enabling the construction of graphs and figures to be presented in the analysis of results.

## IV. PRESENTATION AND ANALYSIS OF RESULTS

Federal public banks receive funds from the national treasury in order to add to credit lines.

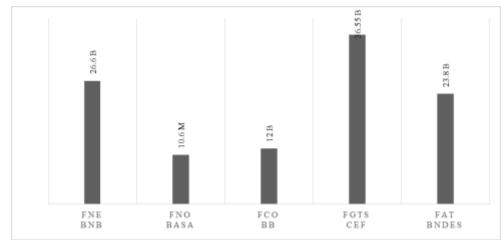


Figure 02: Resources from constitutional funds allocated to banks in 2022 presented in billions (B) and millions (M) of reais.

Source: Ministry of Regional Development, 2022; Ministry of Labor and Social Security, 2022.

The federal government makes resources available to each fund to be applied in the form of credit. In 2022, this amount was allocated to each bank. The amount varies from fund to fund. The FGTS is a fund that has a portion that CEF can use to promote economic activities, however, the value presented in the graph refers to the resource for financing. The same applies to the FAT, which is administered by BNDES.

The banks have a total of 310 (three hundred and ten) lines of credit, all of which were validated and analyzed for the construction of the graphs and figures that will be presented. The data presented are from the banks: Banco do Nordeste do Brasil (BNB), Banco da Amazônia (BASA), Caixa Econômica Federal (CEF), Banco do Brasil (BB) and Banco Nacional de desenvolvimento social (BNDES).

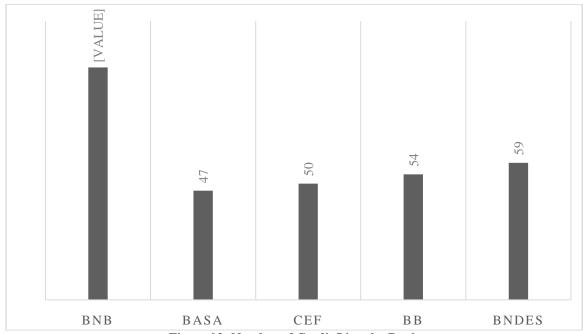


Figure 03: Number of Credit Lines by Bank Source: Survey data (2023)

These are the number of credit lines available by each bank, including the target audience (PJ, PF, PJ/PF) and the areas (rural, urban, mixed). These lines of credit are offered to all Brazilian states, requiring only that customers meet the requirements pre-stipulated by each bank.

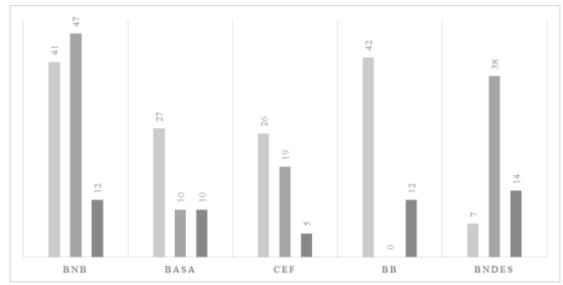


Figure 04: Development Areas (Rural, Urban and Mixed)
Source: Survey data (2023)

The promotion of each area that encourages entrepreneurship has its importance in providing the economic development of a given region. These data cooperate with the research by Santos and Moreira (2020), because, among these credit lines, the variation in interest is high, and thus, individuals with low purchasing power can acquire adequate credit. In more precise information, the bank that offers the largest number of credit

lines that foster entrepreneurship in the rural sector is BB, with 42 lines. Next, BNB with 41, BASA offering 27, CEF with 26 and in last place BNDES providing 07 lines.

In the urban sector, the bank that offers the largest number of lines that encourage urban entrepreneurship is BNB, offering 47 credit opportunities. Next comes BNDES with 38. Then, CEF with 19 lines of credit, BASA offering 10 lines and, finally, BB without offering any line in this modality. In the mixed sector, in which credit lines can be used in both the rural and urban segments, BNDES maintains its leadership by offering 14 lines, BNB and BB tied, as each bank offers 12 lines of credit, BASA offers 10 lines and CEF provides 05 lines.

## ENTREPRENEURSHIP IN THE RURAL SECTOR

The credit lines allocated by each bank to enterprises operating in the rural sector:

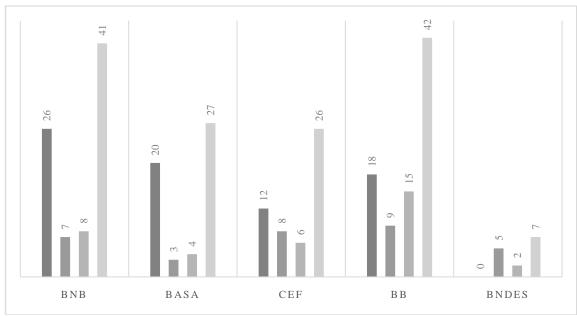
|       |        |         |                  | Minimum                 |              | Minimum     | Max       |         |    |
|-------|--------|---------|------------------|-------------------------|--------------|-------------|-----------|---------|----|
| Bank  | Entity | Qty of  | Values           | Interest                | Max Interest | Grace       | Grace     |         |    |
| Dalik | Linuty | Lines   | Maximum          | /Year                   | / Year       | Period /    | Period /  |         |    |
|       |        |         |                  | / I cai                 |              | Month       | Month     |         |    |
| BNB   | PF     | 26      | 5,000.00 to      | 0.5% p.a.               | 0.5% p.a.    | Without     | 60        |         |    |
| DIND  | II     | 20      | 20,000,000.00    | 0.5 % p.a.              | 0.5 /6 p.a.  | Lack        | OU .      |         |    |
| BNB   | PJ     | 7       | Unavailable      | Unavailable             | Unavailable  | Without     | 48        |         |    |
| DIAD  | ΓJ     | ,       | Chavanable       | Ullavallable            | Chavanable   | Lack        | 40        |         |    |
| BNB   | PJ/PF  | 8       | 20,000.00 to     | 0.59/ n.o               | 2 50/ n o    | Without     | 36        |         |    |
| DIND  | rJ/rr  | rJ/rr 8 | 200,000.00       | 0.5% p.a.               | 3.5% p.a.    | Lack        | 30        |         |    |
| BASA  | ACA DE | DE      | PF               | 20                      | 6,000.00 to  | 0.170/ n.o. | 9 50/ n o | Without | 96 |
| DASA  | rr     | 20      | 1,500,000.00     | 1,500,000.00 0.17% p.a. | 8.5% p.a.    | Lack        | 90        |         |    |
| BASA  | DI     | PJ 3    | 40,000.00 to Not | 60/ no                  | 60/ n a      | Without     | 144       |         |    |
| DASA  | ГJ     |         | Available        | 6% p.a.                 | 6% p.a.      | Lack        | 144       |         |    |
| BASA  | PJ/PF  | 4       | 45,000.00 to     | 60/ n a                 | 60/ n a      | Without     | 144       |         |    |
| DASA  | rJ/rr  | 4       | 100,000.00       | 6% p.a.                 | 6% p.a.      | Lack        | 144       |         |    |
| CEF   | PF     | 12      | 200000.00 to     | 60/ n a                 | 120/ n.o     | Without     | Without   |         |    |
| CEF   | rr     | 12      | 400,000,000.00   | 6% p.a.                 | 12% p.a.     | Lack        | Lack      |         |    |
| CEF   | EE DI  | 0       | 250,000.00 to    | 60/ n o                 | 120/ n.o     | Without     | 12        |         |    |
| CEF   | rJ     | PJ 8    | 400,000,000.00   | 6% p.a.                 | 12% p.a.     | Lack        | 12        |         |    |
| CEF   | PJ/PF  | 6       | 200,000.00 to    | 60/                     | 7.59/ m.o.   | Without     | Without   |         |    |
| CEF   | rJ/rr  | U       | 40,000,000.00    | 6% p.a.                 | 7.5% p.a.    | Lack        | Lack      |         |    |

55 | Page

| ВВ    | PF    | 18 | 3,000.00 to<br>1,500,000.00       | 0.5% p.a.   | 8% p.a.     | Without<br>Lack | 144 |
|-------|-------|----|-----------------------------------|-------------|-------------|-----------------|-----|
| ВВ    | PJ    | 9  | 40,000.00 to<br>40,000,000.00     | 6% p.a.     | 12% p.a.    | Without<br>Lack | 36  |
| ВВ    | PJ/PF | 15 | 200,000.00 to<br>5,000,000,000.00 | 5% p.a.     | 12.5% p.a.  | Without<br>Lack | 60  |
| BNDES | PJ    | 5  | 80.000.000                        | Unavailable | Unavailable | Without<br>Lack | 18  |
| BNDES | PJ/PF | 2  | Unavailable                       | 1.1% p.a.   | 2.1% p.a.   | 3               | 36  |

Figure 05: Rural Credit Lines Available by Brazilian Federal Banks.

The values considered as maximum were compiled as follows: the lowest maximum value and the highest maximum value offered by a credit line were taken into account, i.e., the line that offers 5,000.00 is the maximum value lower than the other lines, while 20,000,000.00 is the highest maximum value than the other lines. This reasoning works for all tables. When it is "unavailable" in the values column, the amount will depend on an analysis that the bank will carry out with the customer to understand how much he can make the acquisition. Minimum interest , the lowest interest rate that the customer can pay, while the maximum interest means the interest ceiling that can be paid on a credit line in the proper modality.



**Figure 06: Rural Credit Lines** Source: Research authors (2023)

For the rural sector, banks offer larger lines of credit to individuals who are characterized as family farmers, rural producers, and micro rural producers. BNDES is the only bank that does not offer credit specifically for individuals.

## ENTREPRENEURSHIP IN THE URBAN SECTOR

The credit lines allocated by each bank to enterprises operating in the urban sector:

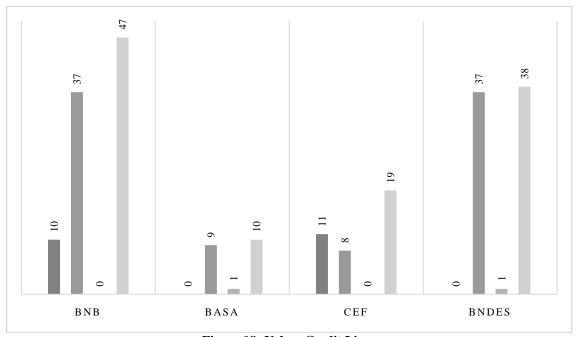
|      |            | Number of | Maximum       | Minimum             | Maximum      | Minimum           | Maximum           |             |          |    |
|------|------------|-----------|---------------|---------------------|--------------|-------------------|-------------------|-------------|----------|----|
| Bank | Entity     | rows      | values        | interest per        | interest per | grace period      | grace period      |             |          |    |
|      |            | 1005      | values        | annum               | annum        | per month         | per month         |             |          |    |
| BNB  | PF         | 10        | 200.00 to     | Unavailable         | Unavailable  | No Grace          | 03                |             |          |    |
| DND  | II         | 10        | 50,000.00     | 0 Unavallable       | Unavanable   | Period            | 03                |             |          |    |
| DND  | BNB PJ     | 37        | 27            | 1,000 to            | 77           | Harrist Harriston | Unavailable Unava | Unavailable | No Grace | 60 |
| BNB  |            |           | Unavailable   | Chavanable Chavanab | Unavallable  | Period            | 60                |             |          |    |
| BASA | P.J        | 9         | 300,00 to Not | 10 00/ n o          | Unavailable  | No Grace          | 96                |             |          |    |
| BASA | PJ         |           | Available     | 28.8% p.a.          | Unavailable  | Period            | 90                |             |          |    |
| DACA | DI/DE      | 1         | II            | 10.00/              | 10.00/       | No Grace          | No Grace          |             |          |    |
| BASA | BASA PJ/PF | 1         | Unavailable   | 10.8% p.a.          | 10.8% p.a.   | Period            | Period            |             |          |    |
| CEF  | DE         | 11        | 500.00 to     | Unavailable         | II           | No Grace          | 06                |             |          |    |
| CEF  | PF         | PF        | PF 11         | 10,000,000.00       |              | Unavailable       | Period            | 06          |          |    |

56 | Page

| CEF   | PJ    | 8  | 150,000.00 to<br>2,000,000.00     | 22.68% p.a. | 28.8% p.a. | No Grace<br>Period | 11                 |
|-------|-------|----|-----------------------------------|-------------|------------|--------------------|--------------------|
| BNDES | PJ    | 37 | 2,000,000.00 to<br>200,000,000.00 | 0.95% p.a.  | 2.5% p.a.  | No Grace<br>Period | 36                 |
| BNDES | PJ/PF | 1  | 150.000.000,00                    | 0.95% p.a.  | 1.85% p.a. | No Grace<br>Period | No Grace<br>Period |

Figure 07: Urban Credit Lines Available by Brazilian Federal Banks.

Figure 07 shows the number of credit lines allocated to each audience, in addition to providing the maximum amounts available, interest rates and the amount of grace period for payment. Amounts vary between banks.



**Figure 08: Urban Credit Lines** Source: Research authors (2023)

In the urban sector, the largest number of lines is intended for the public of legal entities (entrepreneurs, micro, small, medium and large companies), that is, credit available for CNPJ. BB does not offer any type of credit for this modality.

# ENTREPRENEURSHIP IN THE MIXED SECTOR

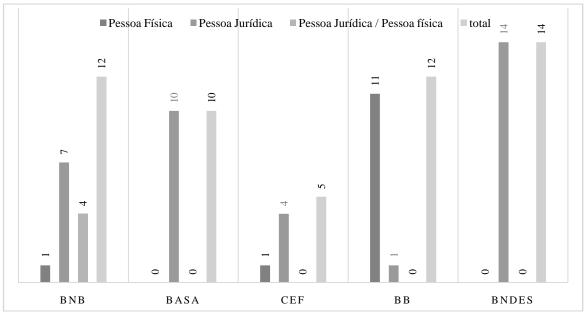
The credit lines allocated by each bank to enterprises operating in the mixed sector:

|       |            | N                 | 34                      | Minimum           | Maximum               | Minimum                   | Maximum                   |          |     |
|-------|------------|-------------------|-------------------------|-------------------|-----------------------|---------------------------|---------------------------|----------|-----|
| Bank  | Entity     | Number of<br>rows | Maximum values          | interest per      | interest per          | grace period<br>per month | grace period<br>per month |          |     |
|       |            |                   |                         | annum             | annum                 | •                         | •                         |          |     |
| BNB   | PF         | 1                 | unavailable             | unavailable       | unavailable           | No Grace                  | No Grace                  |          |     |
|       |            |                   |                         |                   |                       | Period                    | Period                    |          |     |
| BNB   | PJ         | 7                 | unavailable             | 7% p.a.           | 10% p.a.              | No Grace                  | 60                        |          |     |
| DIAD  | 1.0        | <b>'</b>          | unavanabie              | 7 70 p.a.         | 10 /0 p.a.            | Period                    | 00                        |          |     |
| DAID  | DI/DE      | 4                 | 100,000.00 to           |                   |                       | 06                        | 06                        |          |     |
| BNB   | PJ/PF 4 Un | Unavailable       | unavailable             | unavailable       | 06                    | 96                        |                           |          |     |
| DAGA. | 77.        | 10 Unavailable    | ** ** **                | TT 11.1.1         | No Grace              | 40                        |                           |          |     |
| BASA  | PJ         |                   | Unavailable             | Unavailable       | Unavailable           | Period                    | 48                        |          |     |
| ~     |            |                   | Unavailable 47.88% p.a. | 4= 000/           | 4= 0004               | No Grace                  | No Grace                  |          |     |
| CEF   | PF         | 1                 |                         | 47.88% p.a.       | Period                | Period                    |                           |          |     |
|       |            |                   | 50,000.00 a             |                   |                       | No Grace                  | No Grace                  |          |     |
| CEF   | PJ         | 4                 | Out of stock            | Unavailable       | Unavailable           | Period                    | Period                    |          |     |
|       |            |                   |                         |                   |                       |                           | 1 C110U                   |          |     |
| BB    | BB PF 1    | 11                | 20,000.00 to            | 77 XXV/a n a      | .88% p.a. 92.76% p.a. | No Grace                  | 06                        |          |     |
|       |            |                   | 5,000,000.00            | / v p.m.          | 7 <b>Pitti</b>        | Period                    |                           |          |     |
| DD    | DI         | 1                 | 21000                   | 21000 22.60/ n.o. | 22.69/ 7.0            | 22 60/ n o                | 22 (0/ 420/               | No Grace | 1.5 |
| BB    | PJ         | 1                 | 21000                   | 33.6% p.a.        | 42% p.a.              | Period                    | 1,5                       |          |     |

|  | BNDES | РJ | 14 | 10,000,000.00<br>to<br>80,000,000.00 | 1.3% p.a. | 6 % p.a. | No Grace<br>Period | 36 |  |
|--|-------|----|----|--------------------------------------|-----------|----------|--------------------|----|--|
|--|-------|----|----|--------------------------------------|-----------|----------|--------------------|----|--|

Figure 09: Mixed Credit Lines Available by Brazilian Federal Public Banks.

Figure 09 shows the credits destined to the mixed sector, which can be used to finance urban or rural activities, depending on the type of credit. The amounts of credit, interest and grace period are updated data, taken from the official website of each bank.



**Figure 10: Blended Credit Lines** Source: Research authors (2023)

In a parameter of comparison among all banks, for the mixed sector, the corporate public are the ones that receive the largest amount of credit lines to finance these activities. CEF, on the other hand, provides 11 lines for individuals.

In highlights, there are some lines of financing that take into account the projects developed by the entrepreneur, that is, the line finances the idea of the individual in the form of the project elaborated.

| Bank | Line<br>Name             | Purpose   | Target Audience  | Maximum<br>value   | Maximum<br>interest per<br>annum | Maximum<br>grace<br>period per<br>month |
|------|--------------------------|---|--|--|----------------------------------|---|
| BNB  | FNE<br>Startup           | To finance technology-<br>based startups with<br>investment projects in<br>innovation of products,<br>services, processes and<br>organizational<br>methods.     | Small-medium<br>enterprise;<br>Microenterprise;<br>Individual<br>Microentrepreneur<br>(MEI); | MEI - 50 thousand, Other categories - depends on the analysis done by the customer's bank. | Unavailable                      | 12                                      |
| BASA | PRONAF<br>ABC+<br>Forest | Financing, according to<br>the technical project, of<br>activities related to:<br>agroforestry systems;<br>ecologically sustainable<br>extractive exploitation. | Family Farmers<br>who are<br>beneficiaries of<br>PRONAF.                                     | 60K  | 5% p.a.                          | 144                                     |

| BNDES | BNDES<br>Rural<br>Credit | Investment projects in<br>goods and services<br>directly related to<br>agricultural activity. | Rural producers: individuals resident and domiciled in Brazil and legal entities with headquarters and administration in Brazil; and Cooperatives of rural producers, headquartered and managed in Brazil. | Up to 100% of<br>items can be<br>financed. | 0.95% p.a. | 36 |  |
|-------|--------------------------|---|--|--|------------|----|--|
|-------|--------------------------|---|--|--|------------|----|--|

Figure 11: Lines of credit that finance projects.

The three lines presented in figure 11 are responsible for financing ideas in the form of projects, the entrepreneur does not necessarily need to be acting in his activity, being able to present an entrepreneurship proposal following the rules defined by each bank.

#### V. SOLUTION PROPOSAL

As solutions to the investigated problem, the suggested products are the implementation of a mobile application and an online platform. The use of these technologies for teaching and as a tool for automating information is essential, as they can adapt to generate accessibility for people with hearing impairment and blind people (Almeida & Ferreira, 2021). Anchored in this line of thought, the authors also point out that digital platforms and applications have begun to equip themselves with mechanisms for accessibility in recent years in publications in journals about distance education.

| Difficulties encountered<br>by entrepreneurs                  | Product<br>Suggestions  | Purpose of products  | Product Administrators  |
|---|---|--|---|
| Bureaucracy.  Mobile app                                      |   | In this application, all the information about the credit lines will be available (maximum financing amount, interest rate, target audience and grace period for | The Ministry of Economic<br>Development, in partnership with<br>the Brazilian Federal Public  |
| High interest rates.  |   | payment) the application will be free<br>of charge. In addition to being<br>adapted for people with hearing<br>impairment and blind people.                      | Banks to always keep the application database up to date.                                     |
| Lack of knowledge about<br>the variety of lines of<br>credit. | impairment and blind people.  On this platform will be all the information about the credit lin available for the enterprises, is which entrepreneurs and futur entrepreneurs can consult and m simulations about the acquisition credit. In addition, the platform the variety of lines of  impairment and blind people.  On this platform will be all the information about the credit lin available for the enterpreneurs and future entrepreneurs can consult and m simulations about the acquisition credit. In addition, the platform have a tab aimed at teaching entrepreneurship and financial |  | Universities, aiming to encourage<br>and prepare students in relation to<br>entrepreneurship. |

**Figure 12: Proposed solutions** Source: Survey authors, 2023.

The products aim to minimize the difficulties encountered in the research, offering information about the credit lines available by Brazilian federal public banks. The platform seeks to prepare university students so that they can be qualified about entrepreneurship and be able to acquire the knowledge and skills necessary to open their own business in order to circumvent the bankruptcy of their enterprise.

## VI. FINAL THOUGHTS'

Considering the objective of this study to demonstrate the contribution of federal public banks to enable resources to foster entrepreneurship, the results show that the credit lines available by banks are conducive to encouraging entrepreneurship, as banks have financial resources that foster entrepreneurship, in

addition to fostering economic development. However, each credit has its own particularity, for this reason, the entrepreneur must properly analyze which credit line best applies to his economic activity.

It is recommended that entrepreneurs analyze the entire scenario (external and internal) of their enterprise. After analyzing the risks that may impact the activities and observing whether the business can grow without a major threat of bankruptcy, it is necessary to carefully investigate which credit line will provide resources for the growth of the due business. The analysis needs to be done always taking into account the financial information of the enterprise, in order to avoid default with the bank, for not being able to honor the installments of the financing.

In this sense, through theoretical contributions, the research provides data on credit lines and explanations about the origin of credit that fill the gap for new research on financing that encourages entrepreneurship through resources. The practical contributions, for the entrepreneur who can be PF, PJ and PF/PJ, the study provides the lines of credit that can be applied in their ventures in order to help in the growth of the business. In addition to informing society how much the government made available in 2022 for the financing of entrepreneurial activities.

Anchored in the proposed solution, the study points out as proposals to solve the investigated problem the implementation of an application for mobile phones that will contain all the existing credit lines in Brazilian federal public banks. This application will be administered by the Ministry of Regional Development. The other proposal is to implement an online platform that teaches students about entrepreneurship and how to raise funds to finance their entrepreneurial ideas. This platform will be administered by the higher education institutions.

The limitations of this research are conceptualized in the scarcity of some information that was not provided by the banks on their websites, for example, interest rate, maximum financing amount and even the grace period. As the data collection was carried out by analyzing the official websites of each bank, some information was not made available by the banks as previously mentioned. For future research, it is suggested to investigate with private banks, in order to understand if these institutions encourage entrepreneurship, and can extend the research to digital banks.

## REFERENCES

- [1]. Abreu, W. M. D., & Gomes, R. C. (2013). O Orçamento Público Brasileiro E A Perspectiva Emancipatória: Existem Evidências Empíricas Que Sustentam Esta Aproximação? Revista De Administração Pública, 47, 515-540. Https://Doi.Org/10.1590/S0034-76122013000200011
- [2]. Alferaih, A. (2022). Starting A New Business? Assessing University Students' Intentions Towards Digital Entrepreneurship In Saudi Arabia. International Journal Of Information Management Data Insights, 2(2), 100087. https://doi.org/10.1016/J.Jjimei.2022.100087
- [3]. Almeida, I. R., & Ferreira, D. J. (2021). Tecnologias Educacionais Móveis Colaborativas Para Alunos Cegos. Uma Revisão Sistemática Da Literatura. Revista Latinoamericana De Tecnología Educativa-Relatec, 20(2), 83-100. https://Doi.Org/10.17398/1695-288x.20.2.83
- [4]. Araujo, V. L. D., & Cintra, M. A. M. (2011). O Papel Dos Bancos Públicos Federais Na Economia Brasileira. http://Repositorio.lpea.Gov.Br/Handle/11058/1620
- [5]. Banco Central Do Brasil (2022). Relação De Instituições Em Funcionamento No País (Transferência De Arquivos). Https://Www.Bcb.Gov.Br/Estabilidadefinanceira/Relacao\_Instituicoes\_Funcionamento.
- [6]. Bansal, P., Smith, W. K., & Vaara, E. (2018). New Ways Of Seeing Through Qualitative Research. Academy Of Management Journal, 61(4), 1189-1195. https://Doi.Org/10.5465/Amj.2018.4004
- [7]. Bezerra, G. J., & Schlindwein, M. M. (2017). Agricultura Familiar Como Geração De Renda E Desenvolvimento Local: Uma Análise Para Dourados, Ms, Brasil. Interações (Campo Grande), 18, 3-15. https://Doi.Org/10.20435/1984-042x-2016-V.18-N.1(01)
- [8]. Brasil (1989). Lei N° 7.827, De Dezembro De 1989. Institui O Código Civil. Diário Oficial Da União: Seção 1, Brasília, Df, Dez. 1989.
- [9]. Brasil (1990). Lei N°8.036, De 11 De Maio De 1990. Institui O Código Civil. Diário Oficial Da União: Seção 1, Brasília, Df. 11 Maio 1990.
- [10]. Brasil (1990). Lei N° 7.998, De 11 De Janeiro De 1990. Institui O Código Civil. Diário Oficial Da União: Seção 1, Brasília, Df, 11 Jan. 1990.