

Techniques of Bricolage and Frugal Innovation in the Entrepreneurial Context

Carlos Cesar Santos¹, Odlene da Costa Guimarães²

¹(Faculty of Administration / Federal University of the South and Southeast of Pará, Brazil)

²(Faculty of Administration / Federal University of the South and Southeast of Pará, Brazil)

Abstract:

Objective: To analyze the resource reutilization capacity of micro-entrepreneurs in the municipality of Rondon do Pará.

Materials and Methods: Qualitative and exploratory research. The data collection instruments adopted were semi-structured interviews and observation.

Theoretical/Practical/Social Contributions: The results pertain to discussions about the business profile of micro-entrepreneurs in the municipality of Rondon do Pará, economic innovations developed, and innovation measures implemented. It shows that the micro-entrepreneurs were motivated by the opportunity to undertake, innovating with available resources to face new challenges and seeking to specialize to meet market demands. This contributes to aspects of innovation and entrepreneurship, in addition to bibliographic support on entrepreneurial bricolage and frugal innovation.

Originality/Relevance: This study is at the forefront of its field, contributing to contemporary discussions on entrepreneurial bricolage and frugal innovation for entrepreneurs in the northern region of Brazil.

Key Word: Entrepreneurship; Entrepreneurial Bricolage; Frugal Innovation; Micro-entrepreneurs.

Date of Submission: 26-06-2024

Date of Acceptance: 03-07-2024

I. Introduction

Innovation is a specific function for entrepreneurship, whether geared towards technological needs or market fluctuations. It is known that in the field of entrepreneurship, innovating is as important as having capital to invest. It is the process by which an entrepreneurial spirit creates income-generating means or generates resources according to the honed ability to obtain wealth (Drucker, 2002). Thus, it can be seen that innovation and entrepreneurship always seek new ideas to develop and add value.

Although entrepreneurs may initially finance the business with their own savings, most companies do not have the capital, equipment, or experience to fully exploit the business opportunity. With existing resources dwindling, entrepreneurs are forced to liquidate or seek new sources of capital with increasing urgency. However, theoretical developments on how new companies can mobilize resources are still limited, especially when operational conditions hinder access to capital markets (Desa; Basu, 2013).

Thus, the concepts of entrepreneurial bricolage theory (EBT) are useful in studying the subject, as entrepreneurs can obtain resources even under circumstances of extreme resource scarcity. Bricolage offers the use of accessible resources to transform them into new utilities (Baker; Nelson, 2005). In this way, large and small companies can include themselves in the bricolage system out of necessity, as they cannot afford the costs of acquiring more resources.

According to Prabhu (2017), frugal innovation is about doing more (and better) with less. It involves generating greater value for customers, society, and investors by limiting the resources used, innovating more agilely, superiorly, and more affordably. Therefore, it is observed that the concepts have common goals, namely to make the entrepreneur know how to deal with limited resources for the realization of their processes, products, and services. Thus, it is believed that companies should be able to modify their resources based on the bricolage system, with the aim of developing frugal innovation to gain a competitive commercial advantage (Santos, 2018).

In this sense, the question arises: what is the resource reutilization capacity of micro-entrepreneurs in the municipality of Rondon do Pará? The main objective of the research is to analyze the resource reutilization capacity of micro-entrepreneurs in the municipality of Rondon do Pará.

Thus, the work is justified as important so that the creativity used in enterprises can reach the desired innovation, impacting the market, encouraging new forms of management and organization, and helping in the competitiveness of companies.

Next, the basic concepts that underpin this study, such as innovation and entrepreneurship, along with entrepreneurial bricolage and frugal innovation, are addressed as they are ways in which entrepreneurs can obtain resources.

II. Theoretical Framework

Innovation and Entrepreneurship

The competitive, dynamic, and often adverse landscape of the 21st century poses a significant threat to existing standards of competitive success. Existing literature and research on innovation and entrepreneurship recognize their importance in ensuring business viability and creating wealth in today's global economy. Business innovations signify the introduction of new practices or significant improvements in goods or services or operational, organizational, or administrative processes (Dos Santos; Galleli, 2013).

Innovation is one of the most frequently appearing characteristics in the definitions of traditional business writers. Souza (2005) analyzed the characteristics of entrepreneurship addressed by various authors, including Schumpeter (1988), McClelland (1961), Weber (2000), Filion (1999), and McDonald (2001). Innovation existed as a common element, although these authors belonged to different epistemological currents. The study of innovation has been at the center of disciplines such as economics, sociology, and management and has not been described as a single object of study in administration or entrepreneurship. Often, the problems that companies face can put them under pressure and force them to change the product, service, or production process (De Mello; Machado; De Jesus, 2010).

Entrepreneurship is considered the greatest economic force in the world, as it constantly stimulates competition and innovation, besides being a force capable of transforming resources to create, develop, and implement enterprises (Dos Santos; Galleli, 2013).

Filion (1991) defines entrepreneurship as someone who plans, develops, and implements visions. For this, the entrepreneur must conquer the chosen market niche, acquire the necessary knowledge to implement their company, be proactive, identify opportunities, and be in constant dynamic learning that helps shape and develop the vision.

Drucker (1987) explains that several companies succeeded when least expected. Some of these companies managed to seize the opportunity to serve the market, while others did not.

Starting a company in Brazil not only means undertaking new businesses, generating jobs, or creating a general circulation of the national economy. They can more easily meet their specialization needs by seeking activity fragmentation that better integrates technology, quality, and competitiveness. This brings several benefits, including the creation of new jobs, the formalization of small business owners, increased innovation and investment, and greater choice for consumers (Gomes; Fontes; Dos Santos Silva, 2020).

Innovation and entrepreneurship deal with the what, when, and why, with policies and decisions, opportunities and risks, structure and strategy, human resources, remuneration, and rewards (Dos Santos; Galleli, 2013).

For Dornelas (2016), entrepreneurs are uniquely motivated, passionate about what they do, not content with being alone in the crowd; they want to be recognized, admired, referenced, imitated, and leave a legacy, a diverse group of people.

The literature cites bricolage as a way in which entrepreneurs can obtain resources, even in circumstances of extreme resource scarcity. Bricolage offers the use of accessible resources to transform them into new utilities (Baker; Nelson, 2005).

For Prabhu (2017), frugal innovation is about doing more (and better) with less. It involves generating greater value for customers, society, and investors by limiting the resources used, innovating more agilely, superiorly, and more affordably.

Bricolage

The term bricolage originates from Levi-Strauss's work (1962), referring to how indigenous people conceived understanding and perception of the world in new expressions, diverging from the rules of scientific consciousness of the Western world, gaining space in the field of entrepreneurship through a study by Baker and Nelson (2005).

Bricolage focuses on developing possibilities and solving complications using present resources that are devalued, neglected, or discarded, usually available for free or at a lower cost (Desa; Basu, 2013).

Complementarily, Fisher (2012) and Campão, Santos, and Portela (2021) analyze bricolage as an opportunity to describe the creation of companies, meaning doing something with what is at hand, creating something from few resources: building, adjusting resources for new objectives, using available resources.

As a result, Baker and Nelson (2005) identified three basic characteristics of bricolage. The first is improvisation, called making do, which results in rejecting the consolidation of resource limits. This, in turn,

indicates that companies engaged in bricolage aspire to test, correspond, and venture, finding ways to achieve functions without worrying if they have the right tools, capital, or expertise at hand.

The second characteristic is resources at hand, which encompass internal and external resources accessible at a lower cost or for free, or resources classified as valueless by other companies but deemed crucial for companies using bricolage.

Finally, the third characteristic concerns the combination of resources for new purposes. Bricolage is not just about recycling resources but also about the creative redefinition of resources for objectives different from those these resources were originally intended (Santos, 2018).

Thus, bricolage encourages innovation in various ways, and although resource constraints may cause other companies to abandon seeking new measures, companies involved in bricolage are driven to practice confronting innovation challenges (Baker; Nelson, 2005).

Frugal Innovation

Frugal reasoning emerged in emerging markets, primarily in India and China, due to the adversities and extreme difficulties arising from market situations (Koerich; Cancellier, 2019). The business magazine *The Economist* can be considered a pioneer in combining frugality with innovation in a publication titled "Healthcare in India: Lessons from a Frugal Innovator" (Tiwari; Kalogerakis; Herstatt, 2016).

In this era of scarcity, Western companies are facing increasing pressure from cost-conscious and environmentally aware customers, employees, and governments, demanding affordable, sustainable, and high-quality products. Frugal innovation is, therefore, an innovative business strategy. But it is more than a strategy; it marks a new paradigm that views resource limitations as an opportunity, not a disadvantage (Radjou; Prabhu, 2014).

According to Bhatti (2012), it is not merely about cost reduction but also about increasing consumer access through income generation, savings, or payment types. Frugal innovation can also mean that the outcome includes the development of local entrepreneurship, training, and self-sufficiency or sustainability.

Analyzing globalization and the overuse of natural resources, frugal innovations that rationalize the use of raw materials and minimize environmental impacts help increase profitability through conscious and sustainable consumption (Zanandrea et al., 2015).

Frugal innovation is based on generating an engaging value proposition for the selected target audience, focusing on essential functionalities and the offer's behavior, thus reducing the use of material, financial, and organizational resources throughout the value chain. It significantly reduces usage and/or ownership costs while meeting or exceeding dictated quality standards, without losing sight of the quest to create a frugal ecosystem (Tiwari; Kalogerakis; Herstatt, 2016; Rossetto, 2018; Santos; Sales, 2018).

Bricolage and Frugal Innovation in the Entrepreneurial Context

Frugal innovation and entrepreneurial bricolage share characteristics based on improvisation situations due to constraints in the availability of critical resources (Radjou; Prabhu, 2014; Baker; Nelson, 2005). Baker and Nelson (2005) demonstrated how creative resource strategies were favorable in resource-scarce areas, showing that the resourcefulness perspective of bricolage offers a frugal outcome for resource scarcity, providing a better alignment with needs during economic and environmental crises. This resourcefulness in managing resources allows the possibility of doing more with less, creating value while reducing resource consumption (Santos et al., 2020).

In entrepreneurial bricolage, companies adapt to resource scarcity by integrating available resources to address new challenges and opportunities (Baker; Nelson, 2005). Based on principles of frugality such as ease of use, sustainability, problem centralization, inclusion, and market speed, frugal innovation also deals with improvisation in the face of resource scarcity (Radjou; Prabhu, 2014). In analysis, bricolage allows the practice of frugal innovation in a resource-limited environment (Iqbal; Ahmad; Halim, 2020).

According to Santos (2018), both the bricolage method and the advancement of frugal innovation can be classified as options for various-sized companies operating in emerging markets. Thus, to develop frugal innovation in resource-constrained contexts, companies need to incorporate bricolage by redefining their resources to generate new ones, utilizing external resources neglected by other companies to expand their resource base, adopting a non-conformist attitude towards emerging problems, redirecting resources not planned for new intentions, and acquiring low-cost or free resources to address new challenges.

In the study by Iqbal, Ahmad, and Halim (2020), they highlighted that business bricolage acts as a moderator for the successful implementation of frugal innovation. The study made recommendations to policymakers and practitioners about the role of business bricolage as a precursor to frugal innovation, particularly in organizations serving a resource-limited community. It also informed policymakers about the influence of frugal innovation on sustainable performance and contributed to the literature on effectuation

theory by affirming the moderating impact of business bricolage between effective leadership and frugal innovation.

Managers need to give more importance to developing bricolage in their processes if they intend to develop frugal innovations. It is important to note that without developing bricolage capacity, frugal innovation ceases to be a possible response to a given crisis situation. In other words, frugal innovation is not something common that a company conducting other types of innovation can quickly turn on and start performing frugal innovations. The company will only be able to implement frugal innovation if it has already developed bricolage capacity beforehand (Santos et al., 2020).

This reflection aims to contribute to a new understanding of innovation proposed for companies that need to develop resource use and provide greater quality and affordable prices to consumers (Scazziota et al., 2020).

Based on the studies discussed, it can be considered that bricolage can act as a precursor to frugal innovation since both generate economic gains. Remembering that entrepreneurial bricolage does not emerge simply but through learning and mistakes until achieving the successes that enable reaching actual innovation.

III. Methodological Procedures

This section presents the methodological procedures used in the development of the study. The research was conducted in the urban area of the Municipality of Rondon do Pará with 6 micro-entrepreneurs to analyze the resource reutilization capacity.

The choice of methodology was based on a qualitative research proposal using exploratory study, instrument, and procedures. The data collection instrument adopted was semi-structured interviews and observation (Boni; Quaresma, 2005).

For field data collection, an Interview Guide with 10 semi-structured questions was used and applied to the interviewees. After data collection, the information obtained was organized, analyzed, and interpreted to synthesize the results, seeking to respond to the research objectives.

The research was classified as exploratory, aiming to create more familiarity with the subject to clarify or build hypotheses (Gil, 2010). It is exploratory because it delves into a field and characteristics little known in the entrepreneurial environment.

All research was conducted using the available knowledge and adapting it to scientific techniques, procedures, and methods. Scientific research is conducted on a large scale process involving several stages, from formulating a suitable problem situation to presenting results and conclusions (Gil, 2008).

According to Silva and Menezes (2001), it is a qualitative research that seeks answers to specific problems through a series of actions based on rational and systematic steps. If there is little information and a need to solve a problem, the research can help find a solution to that problem. According to Vieira (2004), qualitative research allows for consistent and diversified data collection from small samples, thus allowing social reality facts to be understood in their context. This research is qualitative as it is the best option given the exploratory scenario and the respondent's behavior, making the conversation flow more freely.

The selection of companies was based on convenience and the snowball process, seeking companies with the necessary characteristics for study participation and the openness required for participation in the interviews (Yin, 2010).

The number of companies participating in the research is defined by the theoretical saturation technique, which, according to Eisenhardt (1989), is reached when the information collected in the field starts to repeat until a new case does not add new information to the research.

For analyzing the data collected in the field, the content analysis technique was adopted, which sought to organize according to analytical categories derived from specific objectives (Bardin, 2016). To achieve the specific objectives of this research, efforts were made to outline the business profile of the micro-entrepreneurs in the municipality of Rondon do Pará, investigate the economic innovations developed, and relate the implemented innovation measures.

Finally, demonstrating their characteristics to understand how they can assist enterprises. Table 1 presents the interview structure with the objectives, questions, and authors that underpin these objectives.

Table 1: Structure of the interviews.

OBJECTIVE	QUESTIONS	AUTHORS WHO FOUNDATION
Trace the business profile of microentrepreneurs in the municipality of Rondon do Pará.	1. Age range: () 18 to 25 years old () 26 to 40 years old () over 41 years old.	Silva, 2021.
	2. Nature of the business: _____	
	3. You started your business due to: () Necessity () Opportunity () Continuity of the family business () Other.	

	4. How long have you been working in the market, as a professional and with the enterprise?	
	5. What is the target audience for your business?	
List the innovation measures implemented	6. What difference do you believe exists in your enterprise compared to others?	Filion, 1991.
Investigate the economic innovations developed	7. What do you reuse as a resource to avoid waste and maintain your own cost-benefit ratio?	Santos, 2018.
	8. How do you believe you develop the use of resources and provide higher quality and affordable prices to consumers?	Bhatti, 2012.
List the innovation measures implemented	9. Have you done or are you interested in doing any specialization?	Gomes; Fontes; Dos Santos Silva, 2020.
Trace the business profile of microentrepreneurs in the municipality of Rondon do Pará.	10. Do you feel fulfilled with your venture?	Dornelas, 2016.

Source: Elaborated by the authors (2023).

IV. Data Analysis

Business Profile of Micro-entrepreneurs in the Municipality of Rondon do Pará

The profile of the interviewed micro-entrepreneurs was analyzed based on age group, nature of the business, how the business started, time in the market, target audience, and whether they feel fulfilled with their enterprise, as presented in Table 2.

As observed in Table 2, the age range of the surveyed micro-entrepreneurs varies from 18 to over 41 years, demonstrating that five of the interviewees are young adults, which may facilitate the adoption of innovations. The new generation is adapting to an increasingly dynamic and connected world, with a greater ability to perform multiple actions simultaneously. This may be why Brazil is today a powerhouse of youth entrepreneurship (Gomes et al., 2014).

The interviewed micro-entrepreneurs operate in the trade and services sectors. Among the main reasons that led the micro-entrepreneurs to start their businesses, the opportunity stands out, as five people responded that it was the main reason they started their businesses. Opportunity-driven entrepreneurs are a segment of the population that engages in entrepreneurship not because they have no other job opportunities but because they identified a business opportunity they intend to pursue (GEM, 2015).

Table 2: Business Profile of Microentrepreneurs in the Municipality of Rondon do Pará.

BUSINESS PROFILE OF MICRO ENTREPRENEURS	INTERVIEWED
Age range	INTERVIEWED A: 23 years old
	INTERVIEWED B: 68 years old
	INTERVIEWED C: 37 years old
	INTERVIEWED D: 40 years old
	INTERVIEWED E: 47 years old
	INTERVIEWED F: 45 years old
Nature of the business	INTERVIEWED A: Online Clothing Store
	INTERVIEWED B: Shoe and Clothing Store
	INTERVIEWED C: Ontological clinic
	INTERVIEWED D: Barbershop
	INTERVIEWED E: Bags and Accessories Store
	INTERVIEWED F: Shoes and Accessories Store
Did you start your business by?	INTERVIEWED A: Need
	INTERVIEWED B: Opportunity
	INTERVIEWED C: Opportunity
	INTERVIEWED D: Opportunity
	INTERVIEWED E: Opportunity
	INTERVIEWED F: Opportunity
How long have you been working in the market, as a professional and with the business?	INTERVIEWED A: 2 years on the market and the Business 3 years.
	INTERVIEWED B: 38 years in the market and in Business.
	INTERVIEWED C: 13 years in the market and the Business 3 years.
	INTERVIEWED D: 10 years in the market and the Business 13 years.
	INTERVIEWED E: 10 years in the market and the Business 15 years.

	INTERVIEWED F: 10 years in the market and the Business 8 years.
What is your business’s target audience?	INTERVIEWED A: female public
	INTERVIEWED B: 90% female
	INTERVIEWED C: all gender and age group
	INTERVIEWED D: male all age group
	INTERVIEWED E: aimed at women
Do you feel fulfilled with your venture?	INTERVIEWED F: aimed at women
	INTERVIEWED A: “but it could be better, I believe perhaps due to the economic issue”.
	INTERVIEWED B: “That’s what I told you, commerce demands a lot of change, you have to keep up. It demands too much”.
	INTERVIEWED C: “I feel, because it was a business that worked”.
	INTERVIEWED D: “I still have these projects to do”.
	INTERVIEWED E: “I think something is missing. So, because we always want to improve, right?”.
	INTERVIEWED F: “I feel fulfilled and so does my wife, but we don’t want to stop there...”.

Source: Elaborated by the authors (2023).

Regarding the time in the market, as professionals and with their enterprise, three interviewees stated they had been in the market for more than four years, and another three stated they had been in the market for more than 20 years. The target audience of the micro-entrepreneurs is mainly female, identified by four entrepreneurs as their primary audience. The two service sector entrepreneurs each identified a different target audience, with one serving all genders and age groups and the other serving males of all age groups. Finally, regarding whether they feel fulfilled with their businesses, it was observed that all like their businesses, but they still have unfinished projects.

The statement of Interviewee E regarding feeling fulfilled with their business stands out:

“I feel like something is missing. Because we always want to improve, right? I always like to study the best way to work. Now there's Instagram; we post a lot of things. Usually, the customer arrives, and I don't have the merchandise. I note what they need, and when the merchandise arrives, I call them: 'Hey, it has arrived, come see.' I send photos. We strive to improve as much as possible!”

According to Dornelas (2016), there is no single type of entrepreneur. On the contrary, anyone can become an entrepreneur. Entrepreneurs are uniquely motivated, passionate about what they do, not content with being alone in the crowd; they want to be recognized, admired, referenced, imitated, and leave a legacy—a diverse group of people.

Economic Innovations Developed

Regarding the economic innovations developed in their businesses, the discussion focused on what resources they reuse to avoid waste and maintain their cost-benefit and how they believe they develop resource use to provide higher quality and affordable prices to their consumers, as presented in Table 3.

Table 3: Economic Innovations Developed.

ECONOMIC INNOVATIONS DEVELOPED	INTERVIEWEDS
What do you reuse as a resource to avoid waste and maintain your own cost-benefit ratio?	INTERVIEWED A: I don't think there is, because the only cost I have is the cost of the bag, you know?
	INTERVIEWED B: Looking to change the way we buy and that's where it goes. That's how it is, right? But it's not easy”.
	INTERVIEWED C: “So you don't turn on all the lights or when a room there isn't being attended to, the air conditioning is turned off”.
	INTERVIEWED D: “Only the machine is permanent. Now he used the razor, threw it away, I don't even have anything to waste”.
	INTERVIEWED E: “Sometimes I do it, I make the packaging, right? I search on YouTube how to reuse boxes?”.
	INTERVIEWED F: Yes, I try to reuse the packaging issue, it is very important. The energy issue too. We have a solar projector in our house that can supply our house and we send some here to the company.
How do you believe you develop resource use and provide greater quality and affordability to consumers?	INTERVIEWED A: “It's in the packaging. Because like, the expense we have on packaging, right? Sometimes it's too high for us to impose on the merchandise”.
	INTERVIEWED B: “Everything has a brand, you can take any item from here and see the quality. So, working with products like this, if you don't win, you don't lose, right?”.
	INTERVIEWED C: “We managed to do it, here the value compared to others is much more affordable”.
	INTERVIEWED D: “My price here is already one of the most affordable prices, right? While the price of a haircut here is 30 reais, mine is still 25, so it's

	work. As everyone knows that I have more than 25 years of experience, they trust my work”.
	INTERVIEWED E: “Making the kits with reused packaging will be more affordable, so it won’t be a burden on the consumer’s pocket”.
	INTERVIEWED F: “Yes, of course, because the tendency of many traders is to want to throw their costs on top of the product and this will weigh on the consumer's pocket, so the end consumer is the one who pays all of our expenses in this case, right? We try to work with a margin that allows us to make a profit, but not exploit the customer”.

Source: Elaborated by the authors (2023).

In Table 3, it is observed that all interviewees do not have many alternatives for resource reuse to avoid waste. The reuse methods of three of the interviewees mainly concern packaging. Interviewees E and F showed interest in incorporating sustainability through energy and packaging customization in their enterprises. Regarding providing higher quality and affordable prices to consumers through how they use their resources, three responded that they try not to pass the cost of packaging reuse to consumers, while the other three considered having the most affordable prices in the city.

According to Bhatti (2012), it is not merely about reducing costs but also about increasing consumer access through income generation, savings, or payment types. Frugal innovation can also mean that the outcome includes the development of local entrepreneurship, training, and self-sufficiency or sustainability.

The statement of Interviewee F, regarding providing higher quality and affordable prices to consumers through resource use, stands out:

“Because the trend of many merchants is to pass their costs onto the product, which burdens the consumer. The final consumer pays all our expenses, right? We try to work with a margin that allows for profit but does not exploit the customer.”

The lack of knowledge about innovation management, staying in the comfort zone, and the expected costs of innovation are examples of obstacles that force many companies to abandon innovation (Vidrik, 2012).

Innovation Measures Implemented

To understand the innovation measures implemented, the micro-entrepreneurs were asked about the differentiator they believe exists in their businesses compared to others and whether they have done or are interested in doing any specialization, as presented in Table 4.

Table 4: Innovation Measures Implemented.

INNOVATION MEASURES IMPLEMENTED	INTERVIEWEDS
What difference do you believe exists in your enterprise compared to others?	INTERVIEWED A: “It’s the way I respond.”
	INTERVIEWED B: “Look, generally I try to have a different price than the competition. And I never changed that either. Since I started, I’ve been working here at a very reasonable price, right? And so I’ve been keeping it there. So I’m surviving on this, right?”.
	INTERVIEWED C: “Here we have a very humanized work, a lot of respect for people. Because I think it’s a difference that not every professional shows, right?”.
	INTERVIEWED D: “I believe in professionalism, right? We work with quality, prices too, we always update a better price, because this is competition, having good work, quality and price”.
	INTERVIEWED E: “So, I always like to look for something different, right? So, I like to buy, let’s say, bags, I analyze them, I buy different bags from others so that my store attracts more attention. I like it like that, called different”.
	INTERVIEWED F: “I think our difference is like this, we have to see each other, the other companies. And trying to stand out in some way is by having a store like this, whether imagining the standard, organized, trying to bring new things, innovating as a whole, using social media, everything in your favor, as this is very important for the current trade today, right?”.
Have you done or are you interested in doing any specialization?	INTERVIEWED A: “Yes, I’ve already taken some courses, but I’m interested in specializing in some area of my business to improve myself, right?”.
	INTERVIEWED B: “I’ve already taken some courses, I participated and it’s that story that we learned so much from life that there are times when you go to these courses and there’s nothing left to learn, right?”.
	INTERVIEWED C: “Courses, those things for me in terms of administration to manage the business, no. I actually never thought about it”.
	INTERVIEWED D: “I did it, it’s been 2 years since I finished a course in Marabá through Embelleze. I did Colorimetry, chemistry, I did everything in that area”.
	INTERVIEWED E: “So, sometimes I feel like participating. The problem is time, because here I don’t have employees, it’s just me, my husband and my daughter...”.

INTERVIEWED F: “We have already participated in lectures, workshops and SEBRAE also helps us. Every year he sends someone here to give a talk to guide us where we are missing something that we don't know about. SEBRAE helps us with this”.

Source: Elaborated by the authors (2023).

In Table 4, it is observed that all entrepreneurs believe that their differentiators compared to other businesses are linked to service and product quality. Regarding whether they have done or are interested in doing any specialization, four responded that they have done it, one wants to do it, and another never thought about it.

The statement of Interviewee D, regarding their differentiator compared to other businesses, stands out:

“I believe in professionalism, right? We work with quality, and prices too; we always update to have better prices because that is competition—to have good work, quality, and price.”

Filion (1991) defines entrepreneurship as someone who plans, develops, and implements visions. For this, the entrepreneur must conquer the chosen market niche, acquire the necessary knowledge to implement their company, be proactive, identify opportunities, and be in constant dynamic learning that helps shape and develop the vision.

The statement of Interviewee F, regarding whether they have done or are interested in doing any specialization, stands out:

“We have participated in workshops and SEBRAE also helps us. Every year they send someone here to give a relative lecture, guide us on something we might be lacking, or something we don't know. SEBRAE helps us with that.”

Starting a company in Brazil not only means undertaking new businesses, generating jobs, or creating a general circulation of the national economy. They can more easily meet their specialization needs by seeking activity fragmentation that better integrates technology, quality, and competitiveness. This brings several benefits, including the creation of new jobs, formalization of small business owners, increased innovation and investment, and greater choice for consumers (Gomes; Fontes; Dos Santos Silva, 2020).

V. Conclusion

This study enabled an analysis of the resource reutilization capacity of micro-entrepreneurs in the municipality of Rondon do Pará and their specificities. The interviewed micro-entrepreneurs have distinct profiles but share similarities, such as starting their businesses motivated by the opportunity to venture into entrepreneurship. This demonstrates that entrepreneurs can seize opportunities amidst challenges. All interviewed micro-entrepreneurs exhibit characteristics of determined entrepreneurs who love what they do and strive to leave a legacy.

The economic innovations developed in their businesses show that the entrepreneurs seek to save on packaging materials and maintain affordable prices for their products and services, while ensuring a profit margin without exploiting their customers. As discussed in the study, companies adapt to resource scarcity by innovating with the available resources to face new challenges and opportunities, indicating that entrepreneurial bricolage is being applied in their enterprises.

To implement innovation measures in their businesses, micro-entrepreneurs invest in service and product quality, seeking to specialize to meet market demands, with a focus on technological innovation and a willingness to continually seek knowledge.

The study's objectives and questions were achieved, as the responses obtained from the micro-entrepreneurs of Rondon do Pará allowed for an analysis of resource reutilization capacity and an understanding of aspects, challenges, and innovations related to entrepreneurship.

The study contributes academically by providing a literature review on entrepreneurial bricolage and frugal innovation in the entrepreneurial context, enhancing knowledge on these rarely addressed topics in Brazil. This can clarify the importance of these processes in the business environment and offer administrative contributions, helping entrepreneurs identify their managerial capabilities and creative developments in dealing with resource scarcity. The research revealed that the target audience of four of the entrepreneurs is women, which can be further studied to understand why this demographic is the preferred investment target.

References

- [1]. Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3), 329–366.
- [2]. Bardin, L. (2016). *Análise de conteúdo: edição revista e ampliada*. Edições 70.
- [3]. Bhatti, Y. A. (2012). What is frugal, what is innovation? Towards a theory of frugal innovation. *SSRN Electronic Journal*, 1(Feb.), 1–45. <https://doi.org/10.2139/ssrn.2005910>
- [4]. Bleger, J. (2011). *Temas de psicologia: Entrevista e grupos* (4a ed., R. M. M. de Moraes, Trad.). Martins Fontes.
- [5]. Boni, V., & Quaresma, S. J. (2005). Aprendendo a entrevistar: como fazer entrevistas em Ciências Sociais. *Em Tese*, 2(1), 68-80.

- [6]. Campão, C. A. D. L., Santos, C. C., & Portela, A. Z. (2021). Inovação aberta para a cadeia agroindustrial da pecuária de corte. *Brazilian Journal of Development*, 7(9), 90666-90690.
- [7]. De Mello, C. M., Machado, H. V., & De Jesus, M. J. F. (2010). Considerações sobre a inovação em PMEs: o papel das redes e do empreendedor. *Revista de Administração da Universidade Federal de Santa Maria*, 3(1), 41-57.
- [8]. Desa, G., & Basu, S. (2013). Optimization or bricolage? Overcoming resource constraints in global social entrepreneurship. *Strategic Entrepreneurship Journal*, March(1), 1-53.
- [9]. Dornelas, J. (2016). *Empreendedorismo: transformando ideias em negócios* (6a ed.). Empreende/Atlas.
- [10]. Dos Santos, L. M. L., & Galleli, B. (2013). O ensino de empreendedorismo social nos cursos de administração das universidades públicas brasileiras. *Administração Pública e Gestão Social*, 5(2), 71-79.
- [11]. Drucker, P. F. (1987). *Inovação e espírito empreendedor: prática e princípios* (4a ed.). Pioneira.
- [12]. Drucker, P. F. (2002). The discipline of innovation. *Harvard Business Review*, 80(August), 1-9.
- [13]. Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532-550.
- [14]. Filion, L. J. (1999). Diferenças entre sistemas gerenciais de empreendedores e operadores de pequenos negócios. *Revista de Administração de Empresas*, 39(4), 6-20.
- [15]. Filion, L. J. (1991). O planejamento do seu sistema de aprendizagem empresarial: identifique uma visão e avalie o seu sistema de relações. *Revista de Administração de Empresas*, 31, 63-71.
- [16]. Fisher, G. (2012). Effectuation, causation, and bricolage: A behavioral comparison of emerging theories in entrepreneurship research. *Entrepreneurship: Theory and Practice*, 36(5), 1019-1051.
- [17]. Global Entrepreneurship Monitor (GEM). (2015). *Empreendedorismo no Brasil (Relatório Nacional)*. Instituto Brasileiro de Qualidade e Produtividade.
- [18]. Gil, A. C. (2008). *Métodos e técnicas de pesquisa social* (6a ed.). Atlas.
- [19]. Gil, A. C. (2010). *Métodos e técnicas de pesquisa social* (3a reimpr.). Atlas.
- [20]. Gomes, D. C., et al. (2014). Empreendedorismo jovem: da escola para o mercado de trabalho. *HOLOS*, 5, 324-334.
- [21]. Gomes, P. M., Fontes, S. V., & Dos Santos Silva, C. S. (2020). Empreendedorismo como estratégia de negócio em pequenas e microempresas. *XVII SEGET*.
- [22]. Iqbal, Q., Ahmad, N. H., & Halim, H. A. (2020). Insights on entrepreneurial bricolage and frugal innovation for sustainable performance. *Business Strategy and Development*, May, 1-9.
- [23]. Koerich, G. V., & Cancellier, É. L. P. de L. (2019). Inovação frugal: origens, evolução e perspectivas futuras. *Cadernos EBAPE.BR*, 17(06), 1042-1056.
- [24]. Lévi-Strauss, C. (1989). *O pensamento selvagem I* (T. Pellegrini, Trad.). Papirus. (Obra original publicada em 1962)
- [25]. McClelland, D. (1961). *The achieving society*. Van Nostrand.
- [26]. McDonald, M. (2001). *Clientes: Os verdadeiros donos da empresa*. Futura.
- [27]. Prabhu, J. (2017). Frugal innovation: doing more with less for more. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 375(2095), 20160372.
- [28]. Radjou, N., & Prabhu, J. (2014). *Frugal innovation: How to do more with less*. Profile Books Ltd.
- [29]. Rossetto, D. E. (2018). Frugal innovation: a proposal of an instrument to measurement. Escola Superior de Propaganda e Marketing.
- [30]. Santos, C. C., & Sales, J. de A. (2018). Internet of things: Is there a new technological position?. *International Journal of Innovation*, 6(3), 287-297.
- [31]. Santos, L. L. (2018). Bricolagem e inovatividade organizacional como antecedentes da inovação frugal em mercados emergentes. (Dissertação de Mestrado, Faculdade de Economia, Administração e Contabilidade, University of São Paulo).
- [32]. Santos, L. L., et al. (2020). Bricolage as capability for frugal innovation in emerging markets in times of crisis. *European Journal of Innovation Management*.
- [33]. Schumpeter, J. A. (1988). *A teoria do desenvolvimento econômico*. Nova Cultura.
- [34]. Silva, E. L., & Menezes, E. M. (2001). *Metodologia da pesquisa e elaboração de dissertação*. UFSC.
- [35]. Souza, E. C. L. de. (2005). Empreendedorismo: da gênese à contemporaneidade. *Empreendedorismo: além do plano de negócio*, 1, 3-20.
- [36]. Tiwari, R., Fischer, L., & Kalogerakis, K. (2016). Frugal innovation in scholarly and social discourse: An assessment of trends and potential societal implications. Joint working paper of Fraunhofer MOEZ Leipzig and Hamburg University of Technology in the BMBF-ITA project.
- [37]. Scazzioti, V. V., et al. (2020). Expanding knowledge frontiers in entrepreneurship: Examining bricolage and effectuation. *International Journal of Entrepreneurial Behavior & Research*, 26(5), 1043-1065.
- [38]. Vidrik, V. R. (2012). *Fundamentos da inovação: uma abordagem à pequena e média empresa*. Canal 6.
- [39]. Vieira, M. (2004). Por uma boa pesquisa qualitativa em administração. In D. Zouain, & M. Vieira (Orgs.), *Pesquisa qualitativa em administração* (pp. 13-28). Editora FGV.
- [40]. Weber, M. (2000). *Economia e sociedade*. Editora UNB.
- [41]. Yin, R. K. (2010). *Estudo de caso: planejamento e métodos* (4a ed.). Bookman.
- [42]. Zanandrea, G., Moreira, I., & Pereira, R. (2015). Inovação frugal: uma análise bibliométrica da produção na base Scopus. *Conferências UCS - Universidade de Caxias do Sul, XV Mostra de Iniciação Científica, Pós-graduação, Pesquisa e Extensão*, 4(2015), 1-16.