



REDE REFUGIA: COLLABORATIVE SERVICE AMONG REFUGEES AND  
HUMANITARIAN ORGANIZATIONS

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HUMANITARIAN ORGANIZATIONS

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## DEDICATION

I dedicate this research to people forced to move around the world by force. I hope they will find welcome, protection and dignified life in the host countries. Moreover, the dreams and plans left behind can be rebuilt in the new territory.

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Abstract of the Dissertation presented to COPPE/UFRJ as part of the requirements for obtaining the Master of Science degree (M.Sc.)

REDE REFUGIA: COLLABORATIVE SERVICE AMONG REFUGEES AND  
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Estevão Cristian da Silva Leite

December/2022

Advisor: Tharcisio Cotta Fontainha

Program: Production Engineering

The refugee humanitarian crisis is one of the great contemporary challenges of humanity, being aggravated by the disaster of the Covid-19 Pandemic. In this context, the objective of this research is to strengthen a collaborative process between refugee entrepreneurs, humanitarian organizations and other stakeholders, especially in the context of the COVID-19 pandemic disaster. The research adopted the Design Science Research due to its prescriptive nature, the Systematic Literature Review to raise awareness of the problem and Design Thinking to develop a solution to the refugee humanitarian situation. The literature review considered 68 documents, 33 discuss the insertion of refugees into the labor market through entrepreneurship and encouraging self-sufficiency. However, revealing that only 4 have proposals for the refugee crisis.. Thus, based on the observation of social innovation processes and following the Design Thinking, the collaborative service Rede Refugia is developed and validated, which seeks to facilitate the collaboration process between refugees and other stakeholders. This research result contributes to the development of social services and technologies for disaster response. Finally, future research is suggested on the collaboration of victims and other stakeholders in different disaster contexts.

Keywords: Refugees. Covid-19. Entrepreneurship. Disasters and Humanitarian Operations. Social Innovation. Collaborative service.

Resumo da Dissertação apresentada à COPPE/UFRJ como parte dos requisitos necessários para a obtenção do grau de Mestre em Ciências (M.Sc.)

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Estevão Cristian da Silva Leite

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Orientador: Tharcisio Cotta Fontainha

Programa: Engenharia de Produção

A crise humanitária dos refugiados é um dos grandes desafios contemporâneos da humanidade, sendo agravada pelo desastre da Pandemia Covid-19. Neste contexto, o objetivo desta pesquisa é fortalecer um processo de colaboração entre empresários refugiados, organizações humanitárias e outras partes interessadas, especialmente no contexto do desastre pandêmico da COVID-19. A pesquisa adotou a Design Science Research devido a sua natureza normativa, a Revisão Sistemática da Literatura para aumentar a consciência do problema e o Design Thinking para desenvolver uma solução para a situação humanitária dos refugiados. A revisão de literatura considerou 68 documentos, 33 discutem a inserção dos refugiados no mercado de trabalho através do empreendedorismo e do incentivo à auto-suficiência. Entretanto, revelando que apenas 4 têm propostas para a crise dos refugiados. Assim, com base na observação dos processos de inovação social e seguindo o Design Thinking, o serviço colaborativo Rede Refugia é desenvolvido e validado, o qual procura facilitar o processo de colaboração entre os refugiados e outras partes interessadas. Este resultado da pesquisa contribui para o desenvolvimento de serviços sociais e tecnologias de resposta a desastres. Finalmente, sugere-se uma pesquisa futura sobre a colaboração de vítimas e outras partes interessadas em diferentes contextos de desastre.

Palavras-chave: Refugiados. Covid-19. Empreendedorismo. Catástrofes e operações humanitárias. Inovação Social. Serviço colaborativo.



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## 1. INTRODUCTION

### 1.1. Contextualization of the problem

Historically, human migration, whether individual or collective, is part of the social dynamics of the world, and according to the International Organization for Migration - IOM -, knowing the trends of migration movements allows us to understand social and economic changes in society. Also, it helps us to plan better for the future. OIM (2020) According to the International Organization for Migration, knowing the trends of migratory movements allows us to understand society's social and economic changes and helps us better plan for the future.

Several reasons lead people to move internationally, including political and social issues that threaten the fundamental human rights of people in their countries of residence; the search for better life opportunities; and (ACNUR, 2020) The search for better life opportunities and; the displacement motivated by abrupt environmental events that threaten survival (CLARO, 2020). However, international protection mechanisms still have significant gaps in ensuring the whole exercise of the human rights of migrants. (CLARO, 2020).

In the 1951 UN Convention (UNITED NATIONS, 1951), relating to the Status of Refugees, a person may qualify for refugee status if they fear being a person persecuted for reasons of race, religion, nationality, social group or political opinions, who are outside the country of their nationality and who cannot, because of their fear, avail themselves of the protection of that country. This classification also includes persons who have no nationality (stateless persons), are also outside their country of residence, and are unable or unwilling to return to their country of residence for the fear mentioned above. (UNITED NATIONS, 1951). In Brazil, Law 9.474 (BRAZIL, 1997) defines the mechanisms for implementing the 1951 Refugee Statute and creates CONARE, the agency responsible for granting refugee status. While awaiting deliberation, the people are considered refugee applicants, possessing everyday migratory situations throughout the national territory (CONARE, 2019).

Unlike refugees, migrants go abroad in search of better opportunities, usually economic or educational, and may return safely to their home country (UNHCR, 2020a). However, even migrants have challenges related to social inclusion through access to health services, educational services, overcoming language barriers, or even naturalization procedures. (IOM, 2019).

According to IOM (2020), it is estimated that in 2019 alone, there will be more than 272 million people in the condition of international migrants, representing about

3.5% of the world's population. However, 89.3 million people are in forced displacement (UNHCR, 2021). Of these, 27.1 million people are refugees, 53.2 million are internally displaced, 4.6 million are seeking refuge, 4.4 million Venezuelans are internationally displaced, and more than 10 million are stateless people without nationality recognized by any country. (UNHCR, 2021).

In Brazil, between 2011 and 2021, there were 297,712 requests for recognition of refugee status (SILVA et al., 2021). Moreover, according to data from the UN Refugee Agency (UNHCR) and the National Committee for Refugees (CONARE), conducted by the Ministry of Justice and Public Safety - MJSP of Brazil (CONARE, 2020) between 1993 and June 2020, there were 70,795 decisions on refugee requests in Brazil. Of this total, 40,858 people were recognized as refugees. A significant increase in decisions made between the years 2018 and 2020, as presented in Table 1, is also noteworthy, attributed to the recent migratory movement of Venezuelans to northern Brazil.

Table 1 - Decisions on requests for recognition of refugee status in Brazil - UNHCR (1993-1997) and CONARE (1998 to June 2020)

<b>Period</b>	<b>Total decisions</b>
1993 -1997	1.510
1997-2013	2.910
2014	2.497
2015	1.762
2016	1.964
2017	1.311
2018	13.084
2019	27.893
2020	17.864
Total	70.795
<b>Total favourable decisions</b>	<b>40.858</b>

Source: ACNUR (2020); CONARE (2020), adapted by the author.

One of the challenges related to human migration is to analyze this process not as a threat but as an opportunity to promote new ways of living and working, which can even contribute to the process of social innovation (MANZINI, 2016). In this sense, in addition to recognition, there is also the need to insert and integrate refugees, refugee seekers, and stateless people into the world of work. The UN Refugee Agency -



UNHCR (UNHCR, 2019) developed research to trace the socioeconomic profile of refugees in Brazil, identifying that approximately 57.5% of the people interviewed are working. Of this total, 22% are entrepreneurs, 17.9% in individual businesses and 4.1% in businesses that generate one or more jobs. This research develops a mapping of the interviewees' willingness to become entrepreneurs, finding that 79.26% are interested in having their own businesses. However, they point to the lack of financial resources and technical support as the main difficulties for entrepreneurship.

During the processes of international protection, reception, and integration, refugees interact with a series of actors that participate, from the first assistance at border crossings to the monitoring of their insertion in the labour market (DE CASTRO, 2020). At this juncture, entrepreneurship has been strongly addressed as one of the ways of inserting refugees into the world of work, primarily through creating businesses (UNHCR, 2019). One of the arguments is that these initiatives positively impact the local economy through tax collection or because of the diversification of activities. (UNHCR, 2019). In this context, where people in the refuge process relate to various actors, the research area on Humanitarian Supply Chain Management (HSCM) stands out, defined as the process of planning, implementing the control of the flow and efficient storage of goods and materials, as well as related information, from the point of origin to the point of consumption, aiming to alleviate the suffering of vulnerable people (THOMAS and KOPCZAK, 2005).

However, the COVID-19 pandemic, caused by the SARS-CoV2 virus, is one of the biggest disasters of the last decades and brings significant challenges to the world population; especially to the populations with a higher degree of socioeconomic vulnerability and that is already in a condition of a population affected by another disaster, as is the case of political crises affecting a refugee people (PANDEY, 2020).

In this sense, both political crises and the pandemic itself can be categorized as a disaster according to the definition of disaster by Perry and Quarantelli (2005), which defines it as a social phenomenon of disruptive nature involving events induced by human factors (environmental degradation and technological hazards) or by natural aspects (geological, meteorological and biological).

It is important to note that, in this research, we will use the term "refugee" to define those in the process of forced international displacement and who have requested or already recognized refugee status. Occasionally, mention is also made of other groups of internationally displaced persons, such as humanitarian visa holders, stateless persons and migrants.

According to the Systematic Literature Review conducted by Behl and Dutta (2019), with documents between the years 2011 and 2017, there is a significant

increase in research related to Humanitarian Supply Chain Management (HSCM). Among the existing gaps in the knowledge area are (i) the analysis of the needs and desires of stakeholders and the barriers to collaboration and improvement of response time; (ii) the role of local aid, as well as the reward and motivation mechanisms for the development of actions; (iii) and studies on the effect of technology integration in the post-disaster, enabling the improvement of stakeholder performance (BEHL and DUTTA, 2019).

Operations management, as a theoretical area, contributes to organising the actions of Disasters and Humanitarian Operations - DHO, which are also related to the research context. We highlight the work of Fontainha et al. (2022) that proposes a model of disaster response operations processes. The model describes 62 processes organized into eight levels, among them the "service provided to the population", which includes activities such as the accommodation of the affected population; the receipt of resources; the implementation of the inventory policy; the identification and marking of resources; the storage of products needed for the response; the allocation of resources according to the request and; the delivery of products to the affected population (FONTAINHA et al., 2022).

In relation to the service category, research on Service Design stands out, defined by Stickdorn et al. (2018) as an interdisciplinary approach to thinking about the interactions and journeys of the stakeholders involved in service architecture. This approach is centred on user experience and is often related to service innovation (MERONI e SANGIORGI, 2016).

Moritz (2005) proposes that the professional in this field should be able to design the user experience of service and, to do so, should consider all the complexity that involves the process, being necessary to analyze the different stages that configure the user journey. For Karpen et al. (2017), service design should contribute to the creation of interaction processes and value creation, being guided by the basic principles pointed out by Stickdorn et al. (2018), such as user-centeredness, co-creation, sequentiality, evidence, and holistic process.

Service Design is approached as a driver of social impact services (ALKIRE et al., 2019). For Trischler and Charles (2019, p.22), these service systems involve processes of including multiple actors in the complex system of value co-creation, where each links their resources for mutual benefits. There is, in the literature, also an emphasis on service providers seeking to alleviate the suffering of refugees through Transformative Service Research (KABADAYI, 2019).

Thus, the present study aims to contribute to answering the following research question:

- How do entrepreneurial refugees relate to the stakeholders involved in international protection, reception, and social integration through work, and how can collaboration among these stakeholders be promoted in this context of coping with two disasters simultaneously?

## **1.2. Research Objectives**

The present research aims to strengthen a collaborative process between entrepreneurial refugee people, humanitarian organizations and other stakeholders considering the disaster context of the COVID-19 pandemic. The general research objective is achieved through the following specific objectives:

- a) Identifying the state-of-the-art related to enterprising refugees, the labour market, and disasters; in particular, disasters related to COVID-19 and other epidemics/pandemics;
- b) Identifying possible solutions that already exist: state-of-the-art, related to the insertion of refugee people in the labour market;
- c) Developing a proposed solution that promotes better socioeconomic integration of refugee people in relation to the labour market and in relation to entrepreneurial actions.
- d) Validating the solution proposal with potential users.

Design Science Research (DSR) is used as an umbrella method; according to Collatto et al. (2018, p. 5), it is a method that allows for generating knowledge about how to design an artefact or even prescribe a solution. For the first specific objective, the Systematic Literature Review (SLR) is used, which according to Thomé et al. (2016), allows the review to have greater transparency, reliability and reproducibility in its results. Furthermore, the SLR is related to the DSR because it contributes to the research problem's awareness stage (COLLATTO et al., 2018). As for the second and third specific objectives, the stages of Design Thinking (DT) is used to conduct this stage of research, going through the phases of discovery, interpretation, ideation, experimentation and evolution (IDEO, 2012). It is worth noting that the stages of DT are equivalency with the stages of DSR (PIMENTEL et al., 2020) used, mainly in the phases of ideation and proposition and development of the artefact, to be detailed in the chapter on research methods.

### **1.3. Justification and relevance of the research**

The present research is justified insofar as it intends to support a group of people affected by the pandemic of COVID-19, particularly refugees who undertake, by managing their own businesses, a contemporary socioeconomic phenomenon. Moreover, from the approach of the COVID-19 pandemic as a disaster and its relationship with vulnerable populations, as is the case of refugees, it is sought, through empirical work, to contribute to the advancement of scientific knowledge in the area of Engineering and, in particular, in research on Disasters and Humanitarian Operations - DHO and Social Innovation, reaffirming its interdisciplinary character of Production Engineering.

It is important to note that research on entrepreneurship and disasters is still nascent, especially with regard to business survival and recovery in the post-disaster (Morrish and Jones, 2020).

According to Fontainha et al. (2017), one of DHO's challenges is integration and collaboration among stakeholders. However, there is still a lack of research focusing on the disaster-affected population and their ability to act actively in the response phase. DHO increasingly involves a more significant number of different stakeholders. Therefore, knowing the needs and desires of each group is essential to manage them (FONTAINHA et al., 2020a). In addition, research opportunities include studies that investigate the specific perspectives of the parties involved and the types of disasters that have been little explored (FONTAINHA et al., 2020b), such as the case of refugees and the COVID-19 pandemic.

It also highlights the social relevance of the research to the extent that it proposes an alignment between practical-scientific and social interests (Leiras et al., 2014). The results developed can collaborate with actions to promote the social integration of refugees.

### **1.4. Document structure**

This dissertation is systematized into six chapters. Chapter 1 contextualizes the research theme, presents the main questions, defines the objectives, and justifies the research and its relevance to the area of knowledge to society.

Chapter 2 presents the main methods used to conduct the research. In this sense, it addresses, in detail, how Design Science Research (DSR), Systematic Literature Review (SLR) and Design Thinking (DT) are adopted.

Chapter 3 builds the theoretical framework through the LSR results, presenting the main metrics, the bibliometric analysis and the content analysis, organized into five categories, namely: (i) refugee and international protection; (ii) refugee entrepreneurship and self-reliance; (iii) refuge, disasters and environmentally forced migration; (iv) Stakeholder action in the humanitarian refugee crisis; and business; and (v) Projects to support refugee people.

Chapter 4 presents the proposed solution to the problem of collaboration between stakeholders and the insertion of refugees in the labour market, obtained from the results of the application of the stages of Design Thinking.

Chapter 5 discusses the results of the dissertation, in particular, the answer to the research objective. The main contributions to theory, researchers and practice are presented.

Finally, chapter 6 presents the final considerations, pointing out the main theoretical and empirical limitations and the possibilities of future studies. Moreover, the dissertation ends with presenting the references and the appendix, which support the research, respectively.

## 2. RESEARCH METHODS

A multimethodological approach is used to achieve the objectives of the present research. According to Choi et al. (2016), multimethod research is characterized by using two or more methods in a non-trivial way and on complex issues. The main strengths include greater scientific rigour, practical relevance in the real world, and a lower risk of obtaining biased results (CHOI et al., 2016).

Thus, this chapter presents the three methods used to conduct the research: the DSR - Design Science Research, used as an "umbrella" method; the Systematic Literature Review (SLR), which contributes to the awareness of the research problem, a stage foreseen in the DSR; and Design Thinking (DT), as a method used in the proposition of a solution to the research problem and which is related to the DSR stages.

Figure 1 presents the combination of research methods, and subsections 2.1, 2.2 and 2.3 present each of these methods in more detail.

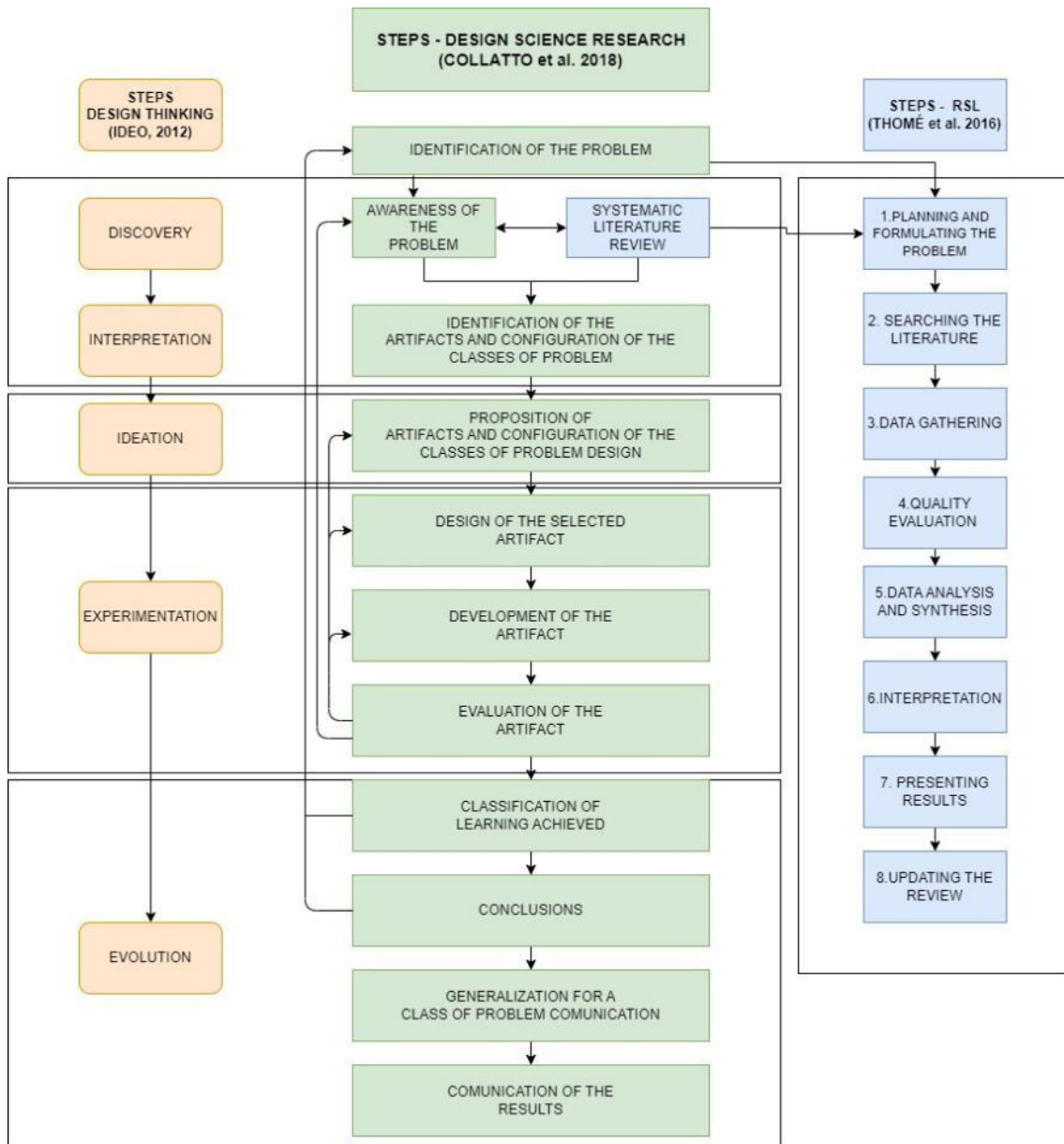


Figure 1 - Multimethodology used in the research

Source: adapted from IDEO (2012), Collatto et al. (2018) and Thomé et al. (2016).

The expected results are to update the state of the art on refugees, entrepreneurship and disasters and structure an artefact to support refugee people, humanitarian organizations and other stakeholders.

## 2.1. Design Science Research

Design Science Research (DSR) is a prescriptive method that aims to develop artefacts that satisfactorily solve practical problems and produce technical-scientific knowledge (COLLATTO et al., 2018). In addition to designing and/or prescribing, DSR

evaluates how well the artefact achieves the goals and can be generalized to the class problems (VAN AKEN, 2004).

The development of a DSR must consider some essential elements, namely: (i) formalization of a relevant problem; (ii) identification of the author about the inexistence of appropriate solutions; (iii) development of a new artefact; (iv) evaluation of the usefulness and feasibility of the artefact; (v) adding value to theoretical knowledge and practical situations; and (vi) publication of the results (COLLATTO et al., 2018).

In the present research, the steps of the RSD are observed as follows. The first step is identifying the problem, which in this research is linked to the challenge of inserting refugees into the labour market through entrepreneurship in the context of two disasters, the humanitarian refugee crisis and the Covid-19 pandemic. The second step is the awareness of the problem, done through an LSR, to be detailed in subsection 2.2. The third step seeks to identify existing solutions and problem classes, which in this case, will also be obtained using the LSR. Then, in the fourth step, the proposition of a solution for the class of problems is performed; this solution is developed and evaluated following the steps of the DT, to it detailed in subsection 2.3. Then the learning obtained through the process of developing the artefact will be pointed out, and the main conclusions will be detailed and presented in chapter 6. Finally, we will generalize the proposition for a class of problems, and the results will be communicated through this master's thesis.

## **2.2. Systematic Literature Review**

According to Fink (2005, p.3), "the literature review is a systematic, explicit and reproducible method that makes it possible to identify, evaluate and synthesize data from works produced and recorded by scholars and researchers". The LSR can be developed through eight steps: (i) planning and identifying the problem; (ii) literature search; (iii) data collection; (iv) quality assessment; (v) data analysis and synthesis; (vi) interpretation; (vii) presentation of results; and (viii) review update (THOMÉ et al., 2016).

For the first stage, the planning and identification of the problem, the first specific objective of this dissertation is used, which seeks to identify the state of the art of research dealing with refugee relations, the labour market/entrepreneurship, and disasters, in particular, epidemics and the COVID-19 pandemic.

The literature search is conducted in two databases: Elsevier's SCOPUS and ISI Web of Science (WoS), considering their general uses, multidisciplinary and scientific relevance, and the complementarity between journals indexed in the two bases



(THOMÉ et al., 2016). The keywords are defined according to the research themes, identifying the main terms related to each one, as presented in Table 2:

Table 2 - Keywords defined for the systematic literature review

Group	Theme	Keywords
Group 1	Refugee	<i>refugee OR "asylum seeker" OR migrant OR "internally displaced person"</i>
Group 2	Pandemic	<i>pandemic OR covid-19 OR coronavirus OR h1n1 OR sars OR ebola OR disaster OR humanitar* OR relief</i>
Group 3	Entrepreneurship	<i>entrepreneur* OR business OR market</i>

Source: the author (2020).

In the data collection step, no time restrictions, and the search performed on October 06, 2020, resulted in a total of 577 documents, 388 in SCOPUS and 189 in WoS. Table 3 shows the results of the search for documents by database, as well as the respective strings used for selection.

Table 3 - Data Search - October 06, 2020

<b>Doc Results</b>		
<b>Keywords (group 1) (grupo 2) (grupo 3)</b>	<i>( TITLE-ABS-KEY ( refugee OR "asylum seeker" OR migrant OR "internally displaced person" OR "displaced population" ) AND TITLE-ABS-KEY ( pandemic OR covid-19 OR coronavirus OR h1n1 OR sars OR ebola OR disaster OR humanitar* OR relief ) AND TITLE-ABS-KEY ( entrepreneur* OR business OR market ) )</i>	388
<b>Doc Results</b>		
<b>Keywords (group 1) (grupo 2) (grupo 3)</b>	<i>TÓPICO: (refugee OR "asylum seeker" OR migrant OR "internally displaced person" OR "displaced population") AND TÓPICO: (pandemic OR covid-19 OR coronavirus OR h1n1 OR sars OR ebola OR disaster OR humanitar* OR relief) AND TÓPICO: (entrepreneur* OR business OR market)</i>	189

Source: the author (2020).

The data from the selected documents are exported and organized using a spreadsheet containing the information described in Table 4:

Table 4 - List of information exported from the databases

<b>Databases</b>		
<b>Nº</b>	<b>Scopus</b>	<b>Isi Web of Science</b>
1	Authors	Author Full Names
2	Title	Article Title
3	Year	Publication Year
4	Source title	Source title
5	Cited by	Times Cited, All Databases
6	DOI	DOI
7	Affiliations	Addresses
8	Abstract	Abstract
9	Author Keywords	Author Keywords
10	Document Type	Document Type

Source: the author (2021).

Next, duplicate documents are excluded, identifying 109 papers in both databases, leaving 468 documents. After defining the total number of papers, the exclusion criteria are defined: (a) documents from the health area; (b) papers that do not address a disaster situation other than the humanitarian refugee crisis; (c) papers that do not address issues related to entrepreneurship and the refugee labour market; (d) papers that do not address situations of forced displacement involving refugees, refugee seekers, and stateless persons. The exclusion criteria are applied by reading the abstracts of the documents. When the information is insufficient, the documents are read in their entirety.

The exclusion criteria are applied, as shown in Figure 2, and 56 publications are selected from SCOPUS and 43 from WoS. Of this total, 31 publications are present in both databases. Thus, 68 documents are forwarded for a full reading.

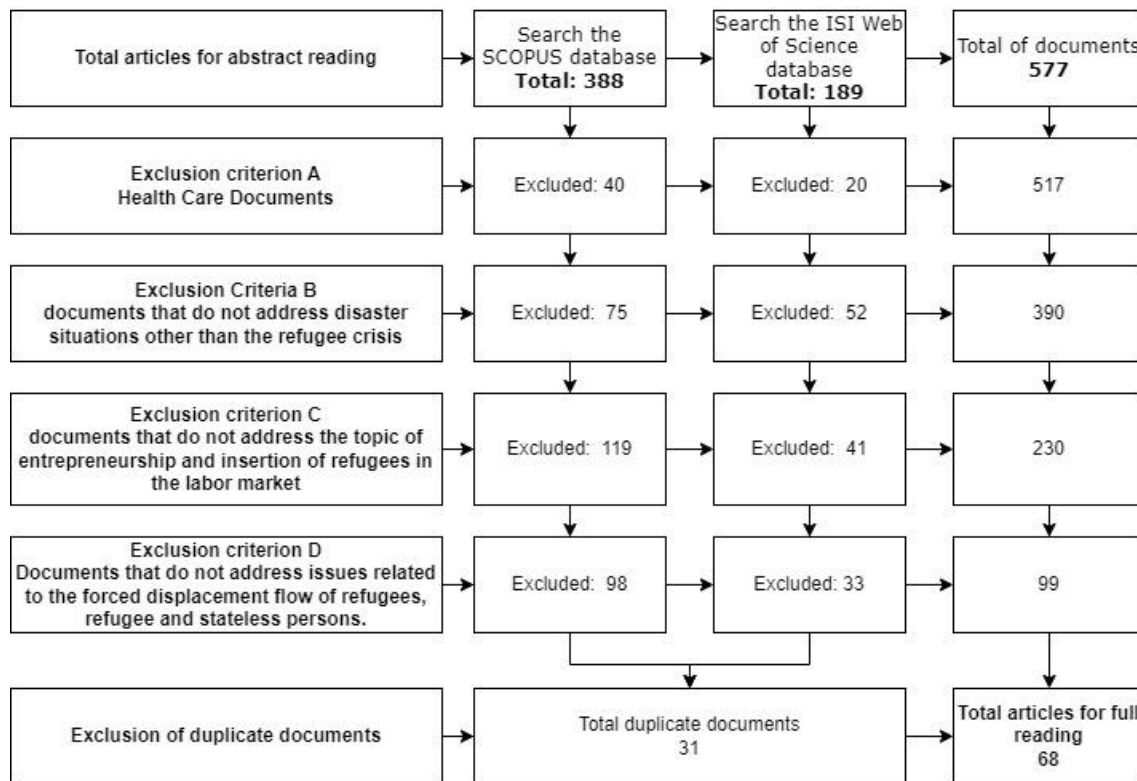


Figure 2- Applying exclusion criteria to databases on entrepreneurial refugees in disaster situations

Fonte: the autor (2021).

Once the exclusion stage is finished, the documents are selected for full reading, where they seek to identify and collect relevant data for the research and organize them through auxiliary spreadsheets. The quality assessment is done through the detailed presentation of the SLR procedures, as developed by Fontainha et al. (2017).

Next, data analysis and synthesis procedures are carried out, which can be understood in terms of bibliometric analysis and content analysis. Regarding bibliometric analysis, the metadata of the publications is exported from the SCOPUS and WoS databases and serves as input for the bibliometric and content analyses (CAVALIERI, REIS e AMORIM, 2021). Scientific mapping using bibliometric methods offers a different perspective on the field of study. According to Zupic and Čater (2015, p.436):

bibliometric methods seek connections between studies and have a macro focus. Their objectives are to find patterns in the literature [...] we believe that bibliometric methods are not a substitute but a complement to traditional methods. They can provide a graphic description of a research field[...] Even when used ad hoc, they can

provide helpful information about the research field to the researcher about which publications and authors are essential, as well as the structure of the field itself.

Thus, the bibliometric analyses are carried out with the VosViewer Software developed by Van Eck and Waltman (2010). This free tool performs bibliometric analysis by applying relational techniques that allow the analysis of a large volume of bibliographic data and presents them by means of network maps, such as co-citation, co-authorship, co-occurrence and bibliographic coupling (VAN ECK e WALTMAN, 2010). Vosviewer also helps extract descriptive data, such as the number of articles per year, the number of articles per author, and the number of articles per country. You can also obtain impact metrics, such as the total number of citations per document and the total number of citations per author (VAN ECK e WALTMAN, 2010).

Regarding content analysis, the data collected are systematized in spreadsheets and analyzed from the following categories: refugees and international protection; entrepreneurship and refugees and self-sufficiency; a refuge, disasters and environmentally forced migration; stakeholders' actions, according to the classification of Fontainha et al. (2017) and proposals for support to refugees.

According to Fontainha et al. (2017, p.371), "better stakeholder management can improve the efficiency and effectiveness of humanitarian and disaster operations - DHO". 10 types of stakeholders are identified that are organized into three groups, public (government, military, legislative and regulatory), private (private sector, direct suppliers and media) and people (international aid network, local aid network and donors), still in the third group are included the beneficiaries; however, they have centrality in the model (FONTAINHA et al., 2017) The third group includes the beneficiaries, but they are central to the model, as shown in figure 3:

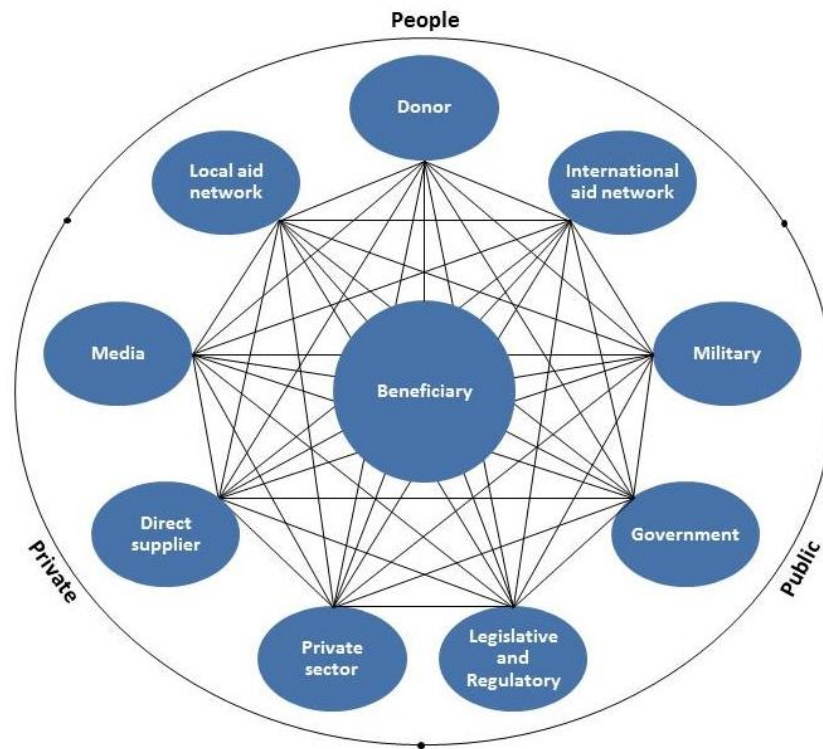


Figure 3 - 3PR stakeholder model for DHO  
 Fonte: Fontainha et al. (2017).

The results are interpreted with arguments that describe, discuss, and explain the entire research object, as Thomé et al. (2016) pointed out. In addition, it seeks to analyze the existence of patterns and models. The results are presented through the elaboration of chapter 3 of this research and the update of the SLR.

### 2.3. Design Thinking

The research uses DT to conduct the solution proposition, going through the phases of discovery, interpretation, ideation, experimentation, and evolution (IDEO, 2012).

It is worth highlighting the relationship between the stages of DT and the scientific procedures used in the DSR. The approaches have compatibility, but they differ because the DT presents the order in which things should be done, and the model - RSD says what should be done and thought by the researcher (PIMENTEL et al., 2020).

In this way, the discovery phase is defined as the elaboration of the theoretical framework, carried out through the SLR, presented in section 2.1, and organized in two cycles, where the first, in addition to the SLR, is composed of informal conversations,

the observation of cases of social innovation, as described by Jégou and Manzini (2008) and immersion in the literature on social innovation and collaborative services (MANZINI, 2016). In the second cycle, interviews are conducted with refugee people and other stakeholders. Therefore, considering the guidelines of IDEO (2012), field research is conducted, which is prepared through a research protocol composed of a script and a semi-structured research questionnaire.

Also, in this stage, the Informed Consent Form is prepared, which, along with the data collection instruments, is submitted and approved by the Research Ethics Committee of the Federal University of Rio de Janeiro and also registered on the Platform Brazil. This procedure is necessary because this is research with people with a high degree of social vulnerability, in addition to ensuring the physical and psychological integrity of the interviewees during the research process.

In this regard, interviews are conducted with refugees, representatives of humanitarian organizations and other stakeholders. In addition, national and international reports on the topic are consulted.

The evidence is analyzed in the interpretation phase of the information obtained in the discovery phase, considering the guidelines in IDEO (2012). The main perceptions are systematized in insights cards, following the structure proposed by Vianna et al. (2012), which are composed of facts, sources of evidence, and the challenge related to the theme. The cards are organized according to their thematic similarities and are represented using an affinity diagram using the structure proposed by Vianna et al. (2012).

In the ideation phase, the first activity is brainstorming, where solutions are thought for the research challenge, considering the guidelines of IDEO (2012). In this stage, it is sought to promote co-creation processes for proposing solutions. After brainstorming, the ideas are selected according to theoretical criteria. After the idea was defined, the canvas tool was developed by Osterwalder and Pigneur (2011) to model the solution from a service perspective for social innovation, as pointed out by Cipolla and Manzini (2009). Also, in this phase, a persona is built to represent a user's narrative and present the user's journey through a blueprint, based on Vianna et al. (2012).

The fourth phase, experimentation, involves the development of a prototype using the graphical editor Figma, version 88.1.0. The development of the artefact is done using Javascript with React Native framework.

In the fifth phase, evolution, the System Usability Scale - SUS usability tests are performed according to what was proposed by Brooke (1995) and analyzed from the scale proposed by Bangor et al. (2009). The feedback collection serves as input for

the revision of the prototype. The prototype solution is built from a user-centred technology solution, according to Stickdorn et al. (2018).

### 3. RESULTS OF THE SYSTEMATIC LITERATURE REVIEW

This chapter presents the results of the SLR performed on the SCOPUS and ISI Web of Science databases on October 6, 2020. The results of the bibliometric analysis are presented in the first subsection. The second and third subsection present the content analysis and discussion of the results, respectively.

#### 3.1. Bibliometric analysis

From the selection of publications in both databases, the results are organized into (i) productivity measure, with the types of documents selected and the number of publications per year; ( ii ) impact metrics such as *h*-index (HIRSCH, 2005); and (iii) relational measures, such as co-occurrence and bibliographic coupling, using the *software VosViewer*, as mentioned in the methodology section.

##### 3.1.1. Types of documents and number of publications per year

This research considers 68 documents selected for bibliometric analysis and full reading, seeking to define state of the art on refugees, the labour market/entrepreneurship and disasters. Table 5 highlights the selection of 49 scientific articles (72.06%), six book chapters (8.82%) and three reviews (4.41%), in addition to other types of documents. This type of distribution reveals that most publications are peer-reviewed ( *articles* ), considered a high-quality feature of discussions on the subject.

Table 5 - Number of document types for SLR

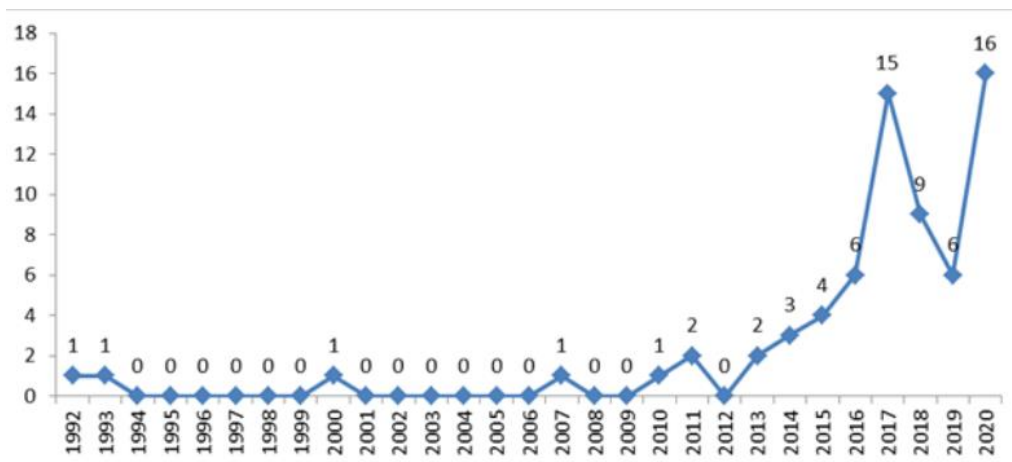
Tipo de documento	Total	%
<i>Article</i>	49	72,06%
<i>Book</i>	1	1,47%
<i>Book Chapter</i>	6	8,82%
<i>Conference Paper</i>	5	7,35%
<i>Editorial Material</i>	1	1,47%
<i>Proceedings Paper</i>	3	4,41%
<i>Review</i>	3	4,41%
Total Geral	68	100,00%

Source: SCOPUS and WoS , organized by author (2021).



Graph 1 shows the number of publications per year between 1992 and 2020. There has been an increase in the number of documents on the subject from the beginning of the 2010s, which may be related to the beginning of the refugee crisis in Syria, in 2011 and the Venezuelan refugee crisis, which intensified in 2014, according to data pointed out by UNHCR (2020b). The numbers of publications that the most significant selected for this analysis are concentrated between 2017 and 2020, demonstrating the growing interest in the research object beyond the use of a current reference.

Graph 1- Number of publications per year on refugees, the labour market/entrepreneurship and disasters between 1992 and 2020



Source: SCOPUS and WoS , organized by author (2021).

The first publication selected is by Hansch (1992), who discusses the humanitarian aid provided to refugees in Mexico and Honduras between 1987 and 1988 and analyzes categories such as refugees' expectations (or fears) about repatriation and property rights. Then there is the work of Sinclair (1993), who discusses income generation programs for refugees from Afghanistan and Pakistan proposed by non-governmental organizations – NGOs. Between 1994 and 1999, there were no selected works related to the present research. In the next subsections, impact and relational metrics are presented.

### 3.1.2. Impact metrics

As presented in the research method section, the impact metrics collaborate to validate the publications selected for the SLR. This section is organized into the following analyses: the number of citations per document and *outliers*, the number of

publications by country; the number of publications by journals; the number of citations per year and the h-index.

*Outliers* are identified. This diagnosis is performed based on the calculation of the interquartile (IQR), determined by the difference between the upper quartile, quartile 3 (Q3), and the lower quartile, quartile 1 (Q1) (DAWSON, 2011). In addition, the mean, upper limit (Lsup) and lower limit (Linf) calculations are performed, as presented by Dawson (2011). Therefore, it has to be:

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ \text{Lsup} &= \text{mean} + 1.5 * \text{IQR} \\ \text{Lymph} &= \text{average} - 1.5 * \text{IQR} \end{aligned}$$

The results found are: the average of citations is equal to fifteen (15); Q3 = 11; Q1 = 1; the IQR = 10; Lsup = 29; and Linf = 0. In this case, the outliers are all papers with a number of citations above the Lsup of 29 citations, as highlighted in Figure 4.

document	citations	%
warner k. (2010)	198	19,86%
beine (2015)	121	12,14%
de montclos m.-a.p. (2000)	95	9,53%
werker e. (2007)	65	6,52%
ilcan s. (2015)	54	5,42%
lister m. (2013)	43	4,31%
oesch l. (2017)	42	4,21%
scott-smith t. (2016)	37	3,71%
bettini (2017)	30	3,01%
becker (2019)	29	2,91%
lenner k. (2019)	27	2,71%
hugo g. (2014)	25	2,51%
bradley m. (2017)	20	2,01%
mavelli l. (2018)	17	1,71%
noja g.g. (2018)	16	1,60%
turner l. (2020)	11	1,10%
kachkar o.a. (2017)	11	1,10%
irastorza n. (2017)	10	1,00%
dalal a. (2015)	9	0,90%
wadhwa (2020)	9	0,90%
shi q. (2020)	8	0,80%
ritchie h.a. (2018)	8	0,80%
earle l. (2016)	8	0,80%
omeje k. (2014)	8	0,80%
garcia-zamor j.-c. (2017)	7	0,70%
hansch s. (1992)	7	0,70%
skran c. (2020)	6	0,60%
de la chaux m. (2020)	6	0,60%
bussi m. (2017)	6	0,60%
teye j.k. (2015)	6	0,60%
yang a. (2020)	5	0,50%
zanker f.l. (2020)	5	0,50%
monteith w. (2017)	5	0,50%
baeninger r. (2017)	4	0,40%
pickerill e. (2011)	4	0,40%
brown s. (2018)	3	0,30%
??leyen b. (2016)	3	0,30%
abdelaaty (2021)	3	0,30%
field j. (2020)	2	0,20%
pasha s. (2020)	2	0,20%
bell c. (2020)	2	0,20%
worku z. (2018)	2	0,20%
luecke m. (2017)	2	0,20%
scheibelhofer (2019)	2	0,20%
perkiss (2017)	2	0,20%
al-mahaidi a. (2021)	1	0,10%
pandey s. (2020)	1	0,10%
how s.m. (2019)	1	0,10%
becerik-gerber b. (2019)	1	0,10%
masys a.j. (2018a)	1	0,10%
o'manique c. (2018)	1	0,10%
nielsen b.f. (2017)	1	0,10%
reis a. (2016)	1	0,10%
hasselknippe k. (2014)	1	0,10%
bradley m. (2013)	1	0,10%
sinclair m. (1993)	1	0,10%
armijos (2017)	1	0,10%
Outros (11 documentos)	0	0,00%
Total	997	100,00%

Figure 4- Analysis of outliers of documents selected for SLR

Source: SCOPUS and WoS, using VosViewer, organized by author, 2021

The analysis identified nine outliers, representing 68.71% of the total citations. The article by Warner et al. (2010) analyzes the relationship between climate change

and humanitarian crises and their socioeconomic consequences for vulnerable populations. Warner et al. (2010) also discuss and presents the definition of environmentally induced migration and establish the relationship with the refugee category. The work of Beine and Parsons (2015) indicates a low relationship between climatic factors and long-term international migration, which is in disagreement with the literature at the macro level. However, there is evidence that environmental factors cause indirect impacts, mainly natural disasters, which result in a wage gap between the countries of origin and destination (BEINE e PARSONS, 2015, p.763).

Montclos and Kagwanja (2000), however, address the dynamics of the urbanization process of refugee camps in the long term, highlighting the importance of humanitarian organizations not only as donors but also as generators of employment and income. The authors also point out that humanitarian aid alone cannot guarantee that refugees settle, requiring an endogenous socioeconomic dynamic and urban cultural integration. (DE MONTCLOS e KAGWANJA, 2000).

In turn, Werker (2007) describes the economy of a refugee camp and reveals the influence that the policies of the host countries have on it, such as restrictions on access to employment, the physical and economic isolation of the camps, in addition to the interaction with the humanitarian assistance.

In contrast, Ilcan and Rygiel (2015) discuss the humanitarian resilience movement, drawing attention to the political nature of governance in refugee camps and seeing with concern the growth of new forms of management, mainly those focused on neoliberal discourses and practices, where refugees are encouraged to accept their fate and rebuild their lives within the camp.

Finally, the following works stand out: Lister (2013) rejects a broader definition of refugees; Oesch (2017) on the ambiguity of refugee camps in Jordan, where there is a partial inclusion of refugee citizens but who remain marginalized; Scott-Smith (2016) who introduces the discussion on humanitarian innovation and points out the challenges for classic humanitarian principles; Bettini et al. (2017) who analyzes the categories “climate refugees” and “migration as adaptation”, where the first represents advances for the discussion of forced migration and the second retrogression and depoliticization.

Next, in Figure 5, the analysis of the Outliers is presented for the documents of the last five years. In addition to the previously identified documents, the following stand out: the work of Becker and Ferrara (2019) on forced migration due to mass expulsions, such as in wars and due to natural disasters; and the work of Lenner and Turner (2019) which analyzes the contradictions during the implementation of the

Jordanian Pact, pointing out the challenges encountered when seeking to reconcile the humanitarian and economic agendas.

document	citations	%
beine (2015)	121	25,21%
oesch l. (2017)	42	8,75%
scott-smith t. (2016)	37	7,71%
bettini (2017)	30	6,25%
becker (2019)	29	6,04%
lenner k. (2019)	27	5,63%
bradley m. (2017)	20	4,17%
mavelli l. (2018)	17	3,54%
noja g.g. (2018)	16	3,33%
turner l. (2020)	11	2,29%
kachkar o.a. (2017)	11	2,29%
irastorza n. (2017)	10	2,08%
wadhwa (2020)	9	1,88%
shi q. (2020)	8	1,67%
ritchie h.a. (2018)	8	1,67%
earle l. (2016)	8	1,67%
garcia-zamor j.-c. (2017)	7	1,46%
skran c. (2020)	6	1,25%
de la chaux m. (2020)	6	1,25%
bussi m. (2017)	6	1,25%
yang a. (2020)	5	1,04%
zanker f.l. (2020)	5	1,04%
monteith w. (2017)	5	1,04%
baeninger r. (2017)	4	0,83%
brown s. (2018)	3	0,63%
??leyen b. (2016)	3	0,63%
abdelaaty (2021)	3	0,63%
field j. (2020)	2	0,42%
pasha s. (2020)	2	0,42%
bell c. (2020)	2	0,42%
worku z. (2018)	2	0,42%
luecke m. (2017)	2	0,42%
scheibelhofer (2019)	2	0,42%
perkiss (2017)	2	0,42%
al-mahaidi a. (2021)	1	0,21%
pandey s. (2020)	1	0,21%
how s.m. (2019)	1	0,21%
becerik-gerber b. (2019)	1	0,21%
masys a.j. (2018a)	1	0,21%
o'manique c. (2018)	1	0,21%
nielsen b.f. (2017)	1	0,21%
reis a. (2016)	1	0,21%
armijos (2017)	1	0,21%
Outros 10 documentos	0	0,00%
Total	480	100,00%

Figure 5- Analysis of the outliers of documents selected for SLR between the years 2016 and 2020

Source: SCOPUS and WoS, using VosViewer, organized by author (2021).

Table 6 presents the countries with the highest occurrence of publications and citations, considering the countries of the institutions to which the authors are linked. Countries considered developed as the United Kingdom, United States, Canada, Germany and Holland, are concentrated the most publications. Only Brazil and Ecuador appear when analyzing Latin American countries, each with one publication and a low number of citations.

Table 6 - The 20 countries with the most publications and citations by databases (SCOPUS and WoS)

<b>Position</b>	<b>Country</b>	<b>Documents</b>	<b>Citations</b>
1	United States	15	346
2	United Kingdom	13	354
3	Germany	6	225
4	Canada	4	75
5	Netherlands	3	11
6	South Africa	3	8
7	Kenya	2	103
8	Australia	2	25
9	Malaysia	2	12
10	India	2	3
11	Norway	2	2
12	Luxembourg	1	42
13	Romania	1	16
14	Turkey	1	16
15	Sweden	1	10
16	China	1	8
17	France	1	6
18	Ghana	1	6
19	Uganda	1	5
20	Brazil	1	4
21	Morocco	1	4
22	South Korea	1	3
23	Ecuador	1	1
24	New Zealand	1	1
25	Pakistan	1	1
26	Portugal	1	1
27	Denmark	1	0
28	Italy	1	0
29	Serbia	1	0
30	singapore	1	0
31	Switzerland	1	0
	<b>Total</b>	<b>74</b>	<b>1288</b>

Source: SCOPUS and WoS , using VosViewer, organized by author (2021).

Figure 6 shows the co-authorship map by country, where it is possible to see not only the concentration of publications in developed countries but it is also possible to visualize the connections between publications, which represents international collaboration in research between researchers of these countries. In contrast, countries like Brazil, which do not have connections on the map, indicate that researchers make publications from the same country.

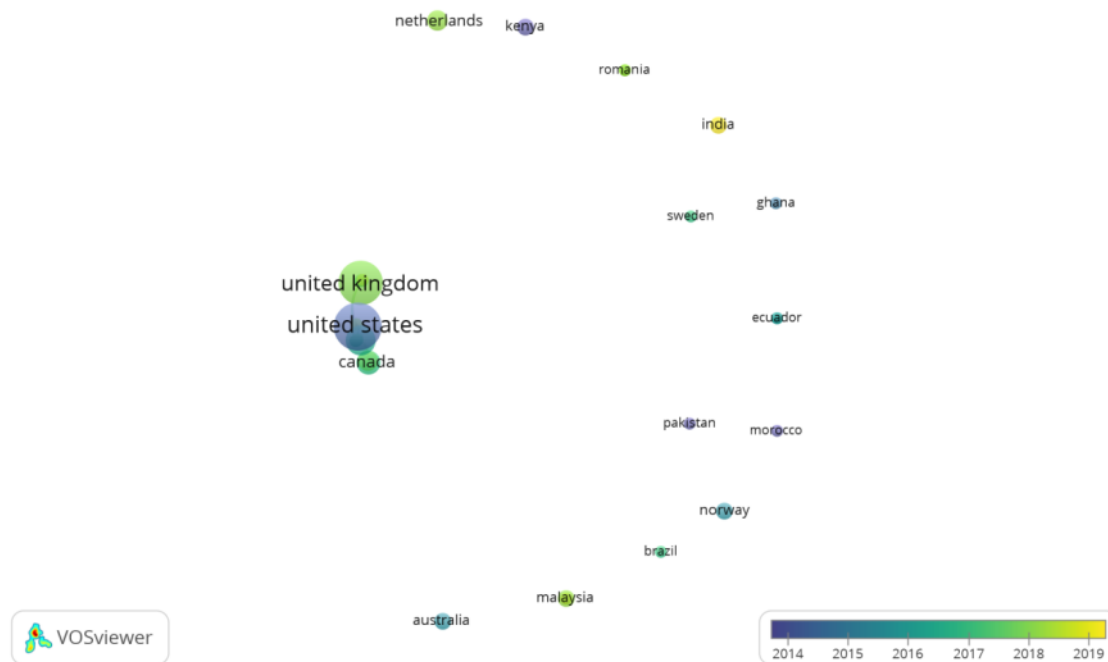


Figure 6- Co-authorship by country

Source: SCOPUS and WoS , using VosViewer, organized by author (2021).

Table 7 shows the 15 journals by the number of citations and the *h-index* impact metric (SCIMAGO, 2021). The journals Natural Hazards, with 1 document and 198 citations and the journal Journal of Refugee Studies, with five documents and 175 citations, and the Scandinavian Journal of Economics, with 1 document and 121 citations, stand out, as they account for 50% of the total citations. Soon it was noticed that the journals linked to institutions present in developed countries, mainly the European ones, have a more significant scientific impact on the themes related to the research object. Political Geography. However, it is worth noting that as this is a multidisciplinary study, some periods, even though they do not have an *h-index* similar to those highlighted, have relevance and impact on their areas of knowledge.

Table 7 - Top 15 journals by number of citations

Ranking	Source	Documents	Citations	%	H-index
1	Natural Hazards	1	198	19,86%	105
2	Journal of Refugee Studies	5	175	17,55%	54
3	Scandinavian Journal of Economics	1	121	12,14%	64
4	International Political Sociology	1	54	5,42%	41
5	Law and Philosophy	1	43	4,31%	30

<b>6</b>	Political Geography	1	42	4,21%	97
<b>7</b>	Third World Quarterly	1	37	3,71%	84
<b>8</b>	Geographical Journal	1	30	3,01%	64
<b>9</b>	Labour Economics	1	29	2,91%	75
<b>10</b>	Middle East Critique	1	27	2,71%	14
<b>11</b>	International Migration	1	25	2,51%	64
<b>12</b>	Refuge	1	20	2,01%	22
<b>13</b>	International Studies Quarterly	1	17	1,71%	100
<b>14</b>	Sustainability (Switzerland)	1	16	1,60%	85
<b>15</b>	Environment and Urbanization	two	13	1.30%	73
<b>16</b>	Others (45)	45	150	15.05%	□□
	<b>Total</b>	<b>68</b>	<b>997</b>	<b>100%</b>	<b>□□</b>

Source: SCOPUS and WoS , using VosViewer, organized by author, 2021.

The value of the impact of the publications h - index is used for the publications selected for the SLR. At this stage, it is necessary to evaluate the publications by the database.

Figure 7 presents the h - index referring to 56 publications extracted from SCOPUS and 43 from WoS. Having the h - index =12 means that 12 articles have at least 12 citations among the selected files. It is worth noting that even though the databases have some different journals and articles, the value of the h-index is the same in both databases, which may indicate that works on refugees that relate to natural disasters and entrepreneurship/the labour market, on average they, are cited 12 times.

The drop in 2021 is related to data extraction in the middle of the year, i.e. it is not necessarily a reduction in the number of citations.





Figure 7- h-index per database  
 Source: SCOPUS (2021) and WoS (2021).

Concerning the areas of knowledge of the selected works, Figure 8 demonstrates that the social sciences (n =47.9%) stand out when representing the SCOPUS documents by sub-area. However, subareas such as computer science (n=8.3%), economic sciences (n=7.3%) and engineering (6.3%) are also profitable for LSR. WoS publications, on the other hand, demonstrate the collaboration of demographic studies, political sciences, international relations, economics and development sciences, reinforcing the multidisciplinary nature of the research that relates refugees to the labour market/entrepreneurship and disasters.



Figure 8- Distribution of the number of publications by areas  
Source: Scopus (2021) and WoS (2021) .

### 3.1.3. Relational metrics

The VosViewer is used for the relational metrics presented in the research method. The *software*, from loading bibliographic information exported from the databases, performs mapping and grouping of information in *clusters*, resulting in maps of correlation networks (VAN ECK; WALTMAN, 2010).

Maps can be presented in three formats, namely:

- a) *network visualization* – visualization of networks in *clusters* differentiated by colors;
- b) *overlay visualization* – visualization of networks in *clusters* organized by color according to the year of publication;
- c) *density visualization* - visualization of information through a heat map, organized by proximity and intensity, measured by the frequency of occurrence of information.

In this research we will mainly use *network* and *overlay visualization* . Thus, the bibliometric analysis stage results are presented in co-occurrence maps of keywords and bibliographic coupling maps per document.

#### 3.2.3.1 Co-occurrence of keywords

The co-occurrence allows identifying which sets of words are being most used in research on refugees, labor market/entrepreneurship and disasters.

For Liu (2013, p.968, our translation) :

The number of occurrences of an author keyword is defined as the frequency of a keyword, while the co-occurrence frequency is defined as the frequency of a pair of keywords occurring simultaneously.

VosViewer elaborates a map based on a co-occurrence matrix (VAN ECK; WALTMAN, 2010). From these maps, it is possible to analyze which terms are most associated with each other, as well as which keywords are most used in a given period of time.

The parameters for creating the co-occurrence map are:

- a) Type of analysis: co-occurrence ;
- b) Unit of analysis: all keywords (includes author, title and abstract keywords);
- c) Counting method: full counting .
- d) Minimum number of occurrences of keywords : 2;
- e) Total Keywords : 62.

In addition, before generating the network map, a *thesaurus file is prepared*, so that terms that have equivalent meaning have their frequency grouped, as shown in Table 8 .

Table 8 - Thesaurus file included in VosViewer to unify similar terms

<b>Label</b>	<b>Replace by</b>
Corona Pandemic	Covid-19
Coronavirus	Covid-19
Disaster	disasters
Earthquakes Event	Earthquakes
Engineering Innovation	Engineering Innovations
Engineering Innovation	Engineering Innovations
Entrepreneur	Entrepreneurship
Entrepreneur	Entrepreneurship
Environmental Change	Climate Change
Environmental Degradation	Climate Change
Environmental Stress	Climate Change
Humanitarian Action	Humanitarianism
Humanitarian Aid	Humanitarianism

Humanitarian Assistance	Humanitarianism
Immigrant	Immigrants
Immigrant Population	Immigrants
Immigration	Immigrants
International Migration	Immigrants
Label	Replace By
Labor Markets	Labor Market
Labor Participation	Labor Market
Labor Supply	Labor Market
Labour Market	Labor Market
Labour Market Outcomes	Labor Market
Livelihood	Livelihoods
Local Government	Local Governmnets
Migrantion And Refugees	Refugees
Nairobi [Kenya]	Kenya
Natural Disaster	Disasters
Neliberalisation	Neoliberalism
Private Sector	Private Sectors
Refugee	Refugees
Refugee	Refugees
Refugee Camp	Refugees
Refugee Camp Markets	Refugee Entrepreneurs
Refugee Camps	Refugees
Refugee Self-Reliance	Self-Reliance
Remittance	Remittances
Remittance	Remittances
Syria Arab Republic	Syria

Fonte: o autor (2021).

Figure 9 presents the result of the map of the co-occurrence of keywords with bibliographic data of the 68 publications extracted from the databases. From the parameters presented above, the co-occurrence of 57 keywords is identified. It is also possible to observe the formation of 8 (eight) *clusters* organized by colours and frequency of association.

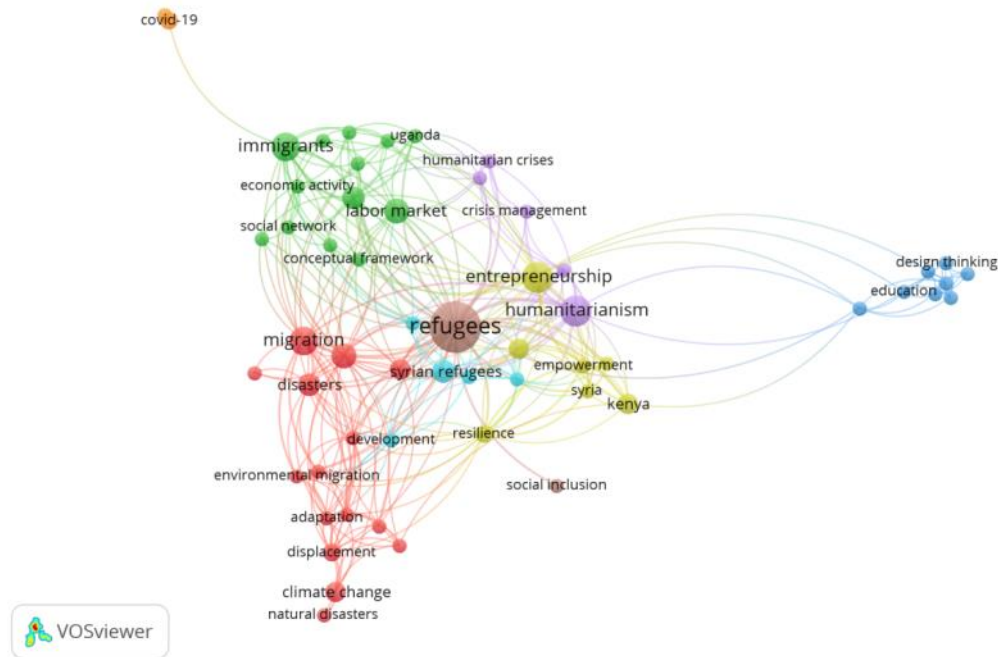


Figure 9- Map of co-occurrence of keywords of publications selected in the SCOPUS base (network visualization)

Source: SCOPUS and WoS , using VosViewer (2021).

Table 9 presents the *clusters* and their respective keywords. The keyword *refugee* stands out for having 25 occurrences and a total link strength equal to 84; that is, it is the term that has the most significant connection with the others. Next, the terms *entrepreneurship stand out*, with nine occurrences and a total link strength equal to 36, and *humanitarianism*, with nine occurrences and 32 links.

The keyword with the lowest degree of proximity to the others is COVID-19, having connections only with the terms' immigrants and *South Africa*. However, it is worth noting that the term COVID-19 is relatively new, considering its emergence at the end of 2019, and research linking the Pandemic with refugees is even more recent.

Table 9 - Clusters of co-occurrence of keywords of publications selected in the SCOPUS database

cluster	Key words
Red	Adaptation; Asylum Seekers; Climate Chang; Disasters; Displacement; Egypt; Environmental Migrations; Forced Migration; Governance; Justice; Migrantion; Natural Disasters; Neoliberalism; Remittances; Socioeconmics Conditions.

Green	Conceptual Framework; Economic Activity; European Union; Immigrants; Immigration Policy; Informal Sector; Labor Market; Livelihoods; Social Capital; Social Network; Socioeconomics Status; Sub-Saharan Africa; Uganda.
Blue	Design Thinking; Education; Engineering Education; Ethiopia; Problem Solving; Product Design; Social Entrepreneurship; Students
Yellow	Empowerment; Entrepreneurship; Jordan; Kenya; Resilience; Syria; Syria Arab Republic.
Lilac	Crisis Management; Humanitarian Crises; Humanitarianism; State Role; Urban Population.
Light blue	Self Reliance; Syrian Refugees; Unhcr; Zaatari
Orange	Covid-19; South Africa.
Brown	Refugees; Social Inclusion.

Source: VosViewer (2021), organized by the author.

Figure 10 shows the co-occurrence map in the *overlay* view. In it, the keyword nodes are coloured according to the period in which they appear most frequently. By analyzing the map, it is possible to infer that the terms most used recently are covid-19, *immigrants*, *socioeconomic status*, *Jordan*, *Syrian refugees*, *state role* and *design thinking*. It is also possible to infer that the terms *entrepreneurship* and *disasters* have been more frequent from 2016 onwards.

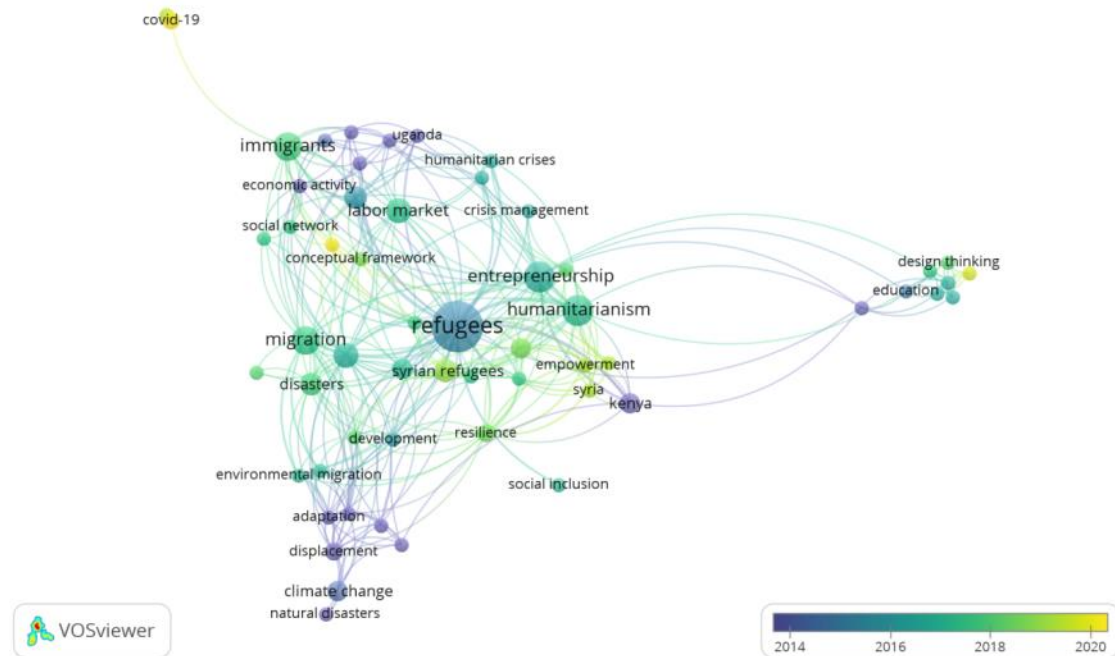


Figure 10- Map of co-occurrence of keywords in publications selected in the SCOPUS database (overlay visualization)

Source: SCOPUS, using VosViewer (2021).

### 3.2.3.2. Bibliographic coupling per document

Bibliographic coupling is a scientific mapping method that demonstrates the intertextual relationships between certain publications; that is, it shows the set of publications that use the same bibliographic base (VOGEL; GÜTTEL, 2013).

The *software* VosViewer allows you to apply the bibliographic coupling method with up to five analysis units: documents, journals, authors, organizations and countries. In this research, it was decided to use documents as the unit of analysis to identify which documents are cited by others. Figure 11 illustrates the result of the bibliographic coupling obtained from the 68 documents selected for SLR in the databases. Of this total, only 25 publications have consistent links in their references. The next section identified seven clusters that serve as the basis for structured content analysis.

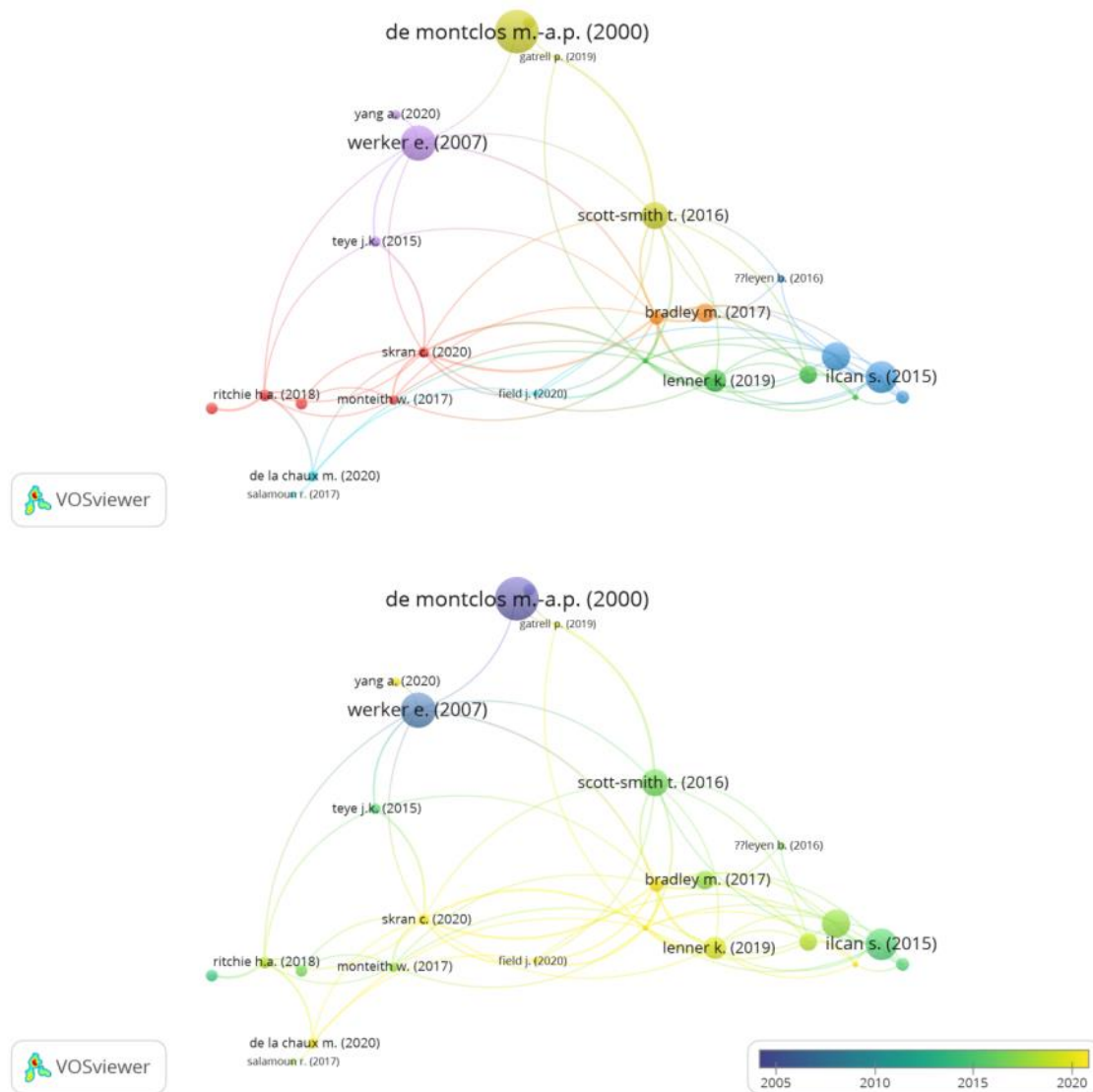


Figure 11- Bibliographic coupling maps by documents - (network and overlay visualization)

Source: SCOPUS and WoS, using VosViewer (2021).

Table 10 presents the documents that make up each of the 7 clusters represented on the map in Figure 11. It includes information on authors, titles of works, year of publication and respective journals. In addition, the research analysis is defined based on the analysis of these publications.

When analyzing the red cluster, it is noticed that the works are related to the context of the insertion of refugees in the labour market. The debate on entrepreneurship and self-sufficiency stands out, where criticisms of the neoliberal approach are identified. The category of analysis focused on stakeholders is also defined, identifying works that take a more generic approach and others that specifically discuss the role of actors such as the Government and humanitarian



organizations (EARLE, 2016; MONTEITH and LWASA, 2017; OMEJE and MWANGI, 2014; RITCHIE, 2018; SKRAN and EASTON-CALABRIA, 2020)

In the green cluster, Lenner and Turner (2019) work analyzes the contradictions in implementing the Jordanian Pact, which considers Syrian refugees as beneficiaries of humanitarian aid and entrepreneurs. For Pasha (2020), the influence of authorities in the refugee camps is a challenge to self-reliance. In a complementary way, Mavelli (2018) addresses the process of commodification of citizenship based on the withdrawal of the State and on free market humanitarian policies. Vergnano (2020) brings reflections on how the race of migrants influences the process of crossing and international protection.

In the blue cluster, Dalal (2015) analyzes the context of "endless waiting" in the Zaatari refugee camps in Jordan and the dynamics that involve humanitarian aid until lasting solutions arrive. In this sense, Oesch (2017) highlights the multiple stakeholders involved in the dynamics of inclusion and exclusion of refugee camps, which at the same time are treated as autonomous and productive, but continue to live on the margins.

In the yellow cluster, publications by Gatrell (2019) stand out, which conducts a multiple case study on the performance of NGOs in refugee camp contexts. It also discusses how humanitarian aid has become a billionaire businessman and how its financing depends on the priorities of each State. In a complementary way, Scott-Smith (2016) critically analyzes the process of humanitarian innovation, warning about trends that "underestimate the States", encouraging self-sufficiency and "overestimate technology", taking away from the State's commitment to social rights. Corroborating this proposition, Hansh (1992), when analyzing self-sufficiency in refugee camps in Central America, states that even though refugees work all day planting food, the limited production capacity does not meet the group's needs.

In the lilac cluster, Teye and Yebleh (2015) use the sustainable livelihoods framework as a model to analyze the vulnerability context of refugees in Ghana. For Teye and Yebleh (2015), one of the significant challenges of refugees is linked to employability, which is even more difficult in developing countries where ethnic-linguistic aspects are different than in their countries of origin. In addition, receiving support from friends, churches, NGOs, and relatives guarantees living conditions in the host countries (TEYE e YEBLEH, 2015). In this way, it is recommended that refugees form mutual groups based on principles of solidarity and can contribute to livelihoods (TEYE e YEBLEH, 2015).

In this sense, in the light blue cluster, Salamoun and Azad (2017) identify small innovative ventures in refugee camps and highlight the importance that startups and

social businesses that emerge within this context should be oriented towards support activities in a perspective of collaboration to social inclusion. Incubators and accelerators are also identified as strategic for this ecosystem to strengthen and prosper (SALAMOUN e AZAD, 2017).

Finally, in the orange cluster, Bradley and Cohen (2013) address the dimension of forced migration due to environmental issues, especially disasters, and normative, conceptual and organizational issues that guarantee the human rights of these people. For Turner (2020, p.18), the vision of "refugee entrepreneurship" is articulated with worrying proposals for reforms for the broader refugee regime, which minimize the rights of refugees based on the help provided by global capitalism. In addition, Turner (2020) argues that racial aspects are also relevant to the analysis of the experience between entrepreneurship and the humanitarian crisis of refugees since, in the case of Zaatari, Syrian refugees are portrayed as entrepreneurs due to their approximation with Western whiteness, whereas the African refugees are often portrayed as passive.

Table 10 - Clusters of bibliographic coupling by documents selected from the SCOPUS database

cluster	Documents	Title	Year	Source
Red	(EARLE, 2016);	Urban crises and the new urban agenda	2016	Environment and Urbanization
	(MONTEITH; LWASA, 2017 )	The participation of urban displaced populations in (in)formal markets: contrasting experiences in Kampala, Uganda	2017	Environment and Urbanization
	(OMEJE; MWANGI, 2014)	Business travails in the diaspora: The challenges and resilience of Somali refugee business community in Nairobi, Kenya	2014	Journal of Third World Studies
	(RITCHIE, 2018)	Gender and enterprise in fragile refugee settings: female empowerment amidst male emasculation—a challenge to local integration?	2018	Disasters
	(SKRAN; EASTON-CALABRIA, 2020)	Old Concepts Making New History: Refugee Self-reliance, Livelihoods and the 'Refugee Entrepreneur	2020	Journal of Refugee Studies
Green	(LENNER; TURNER, 2019a)	Making Refugees Work? The Politics of Integrating Syrian Refugees into the Labor Market in Jordan	2019	Middle East Critique
	(MAVELLI, 2018)	Citizenship for sale and the neoliberal political economy of belonging	2018	International Studies Quarterly
	(PASHA, 2020)	Developmental Humanitarianism, Resilience and (Dis)empowerment in a Syrian Refugee Camp	2020	Journal of International Development
	(VERGNANO, 2020)	Why take such a risk? Beyond profit: motivations of border-crossing facilitators between France and Italy	2020	Social Anthropology
Blue	(DALAL, 2015)	A socio-economic perspective on the urbanisation of Zaatari Camp in Jordan	2015	Migration Letters
	(ILCAN; RYGIEL, 2015)	"Resiliency Humanitarianism": Responsibilizing Refugees through Humanitarian Emergency Governance in the Camp	2015	International Political Sociology

	(İŞLEYEN, 2016)	Rendering Space and People Economic: Naguib Sawiris' Refugee 'Country'	2016	Mediterranean Politics
	(OESCH, 2017)	The refugee camp as a space of multiple ambiguities and subjectivities	2017	Political Geography
Yellow	(DE MONTCLOS; KAGWANJA, 2000)	Refugee camps or cities? The socio-economic dynamics of the Dadaab and Kakuma camps in Northern Kenya	2000	Journal of Refugee Studies
	(GATRELL, 2019)	Western NGOs and refugee policy in the twentieth century	2019	Journal of Migration History
	(HANSCH, 1992)	Diet and ration use in central american refugee camps	1992	Journal of Refugee Studies
	(SCOTT-SMITH, 2016)	Humanitarian neophilia: the 'innovation turn' and its implications	2016	Third World Quarterly
Lilac	(TEYE; YEBLEH, 2015)	Living Without Economic Assets: Livelihoods of Liberian Refugees in the Buduburam Camp, Ghana	2015	Journal of International Migration and Integration Journal of Refugee Studies
	(WERKER, 2007)	Refugee camp economies	2007	
	(YANG; LIU; WANG, 2020)	Cross-sector alliances in the global refugee crisis: An institutional theory approach	2020	Business Ethics
Light blue	(DE LA CHAUX; HAUGH, 2020)	When formal institutions impede entrepreneurship: how and why refugees establish new ventures in the Dadaab refugee camps	2020	Entrepreneurship and Regional Development
	(FIELD; TIWARI; MOOKHERJEE, 2020)	Self-reliance as a Concept and a Spatial Practice for Urban Refugees: Reflections from Delhi, India	2020	Journal of Refugee Studies
	(SALAMOUN; AZAD, 2017)	Role of innovation incubators and accelerators in alleviating the refugee crisis	2017	AMCIS 2017 - America's Conference on Information Systems: A Tradition of Innovation
Orange	(BRADLEY; COHEN,	Disasters, displacement and protection: Challenges,	2013	Refuge

2013)	shortcomings and ways forward		
(TURNER, 2020)	'#Refugees can be entrepreneurs too!' humanitarianism, race, and the marketing of syrian refugees	2020	Review of International Studies

Source: VosViewer (2021), organized by the author.

### 3.2. Content Analysis

Based on the findings of the previous section, this research discusses the following categories: (i) refugees and international protection (ii) refugee entrepreneurship and self-sufficiency; (iii) refugees, disasters and environmentally forced migration; (iv) action by stakeholders, based on the model by Fontainha et al. (2017); and (v) project proposals to support refugees.

Table 11 presents the documents that make up each category, highlighting the most significant number of works that specifically discuss the theme of entrepreneurship and self-sufficiency as an alternative for the social integration of refugees. In contrast, few studies are identified that relate the labour market to the disasters of the COVID-19 pandemic and the refugee humanitarian crisis.

Table 11 - Documents by categories

Analysis Category	Documents
Refugees and international protection	Scheibelhofer and Taeubig (2019) ; Isleyen (2016) ; Kachkar (2017) ; Lister (2013) ; Ilcan et al. (2015) ; Luecke and Schneiderheinze (2017) ; Baeninger and Peres (2017) ; (Noja et al. (2018) ; Oesch (2017) ; Skran and Easton-Calabria (2020)
Refugee Entrepreneurship and Self-Reliance	Bussi and Pareliussen (2017) ; Brokerage( 2015) ; De La Chaux and Haugh ( 2020 ) ; De Montclos and Kagwanja (2000) ; Field, Tiwari; and Mookherjee (2020) ; (Brittes, Unanue and Braida (2019) ; Garcia-Zamor (2017) ; Hugo (2014) ; Ilcan and Rygiel (2015) ; Irastorza and Bevelander (2017) ; Lenner and Turner (2019b) ; Mahoney (2016) ; Mavelli (2018) ; Monteith Fights (2017) ; Noja et al. (2018) ; Omeje and Mwangi (2014) ; Ozcan (2016) ; King (2020) ; Pickerill (2011) ; Ritchie (2018) ; Salamoun and Azad (2017) ; Scott-Smith (2016) ; Sinclair ( 1993 ) ; Skran and Easton-Calabria (2020) ; Turner (2020) ; According to Valek et al. (2020) ; Vergnano (2020) ; Work (2018) ; Werker (2007) ; Hansch , ( 1992a )
Disasters and Environmentally Forced Migration	How and Kerr (2019) ; Bettini, Nash and Gioli (2017) ; Beine and Parsons (2015) ; Bradley and Cohen (2013) ; Warner et al., (2010) ; Bell and Masys (2020) ; James Hanlon (2018)
Refugees and Covid-19	Wadhwa (2020) ; Shi and Liu (2020) ; Zanker and Moyo (2020)
Stakeholders	Gatrell (2019) ; Bradley (2017) ; Earle (2016) ; Lenner and Turner (2019) ; (Luecke and Schneiderheinze (2017) ; Oesch (2017) ; Pasha (2020) ; Teye and Yebileh (2015) ; Yang, Liu and Wang (2020)
Refugees and Covid-19	Wadhwa (2020) ; Shi and Liu (2020) ; Zanker and Moyo (2020)
Project proposals Support for Refugees	Botina Narvaez (2020) ; Becerik-Gerber et al. (2018) ; Becker, Severo and De Guimarães (2018) ; Brown and Mickelson (2018) ; □□ Hasselknippe, Reikvam and Nielsen, (2014) ;

Source: the author (2021).

### 3.2.1 Refugee and international protection

Frequently, refugees are presented as a subgroup concerning immigrants, but there are consistent differences in how both groups are treated (ABDELAATY e STEELE, 2022). According to Abdelaaty and Steele (2020), in the European context, refugees are considered at a macro level through public policies in each country, while immigrants are seen as people who move in search of better economic conditions and concerns are primarily individuals at the micro level. In addition, many studies point to a lower insertion of refugees into the labour market compared to other groups of migrants (SCHEIBELHOFER e TAEUBIG, 2019).

According to Lister (2013), millions of people worldwide cannot meet their needs alone and need assistance from the international community. However, many refugees only find shelter in low- and middle-income countries, which are also unable to fully meet their basic needs (LUECKE e SCHNEIDERHEINZE, 2017). For Luecke and Schneiderheinze (2017), a new global pact is needed that deepens international cooperation, and that burdens and responsibilities are distributed more equitably. However, there are more and more frequent proposals for solutions to the refugee crisis that align humanitarianism with a neoliberal logic, where refugees are not treated as political subjects but exclusively as economic actors who must seek their financial autonomy, resilience and self-reliance. Responsibility, removing the agreed obligations from the States (İŞLEYEN, 2016).

### 3.2.2 Refugee entrepreneurship and self-reliance

Of the total of 68 documents, 33 discuss actions to insert refugees into the labour market through entrepreneurship and encouraging self-sufficiency.

Many authors differ on the concept of self-sufficiency for refugees, especially concerning the definition proposed by UNHCR, which needs to be more specific and prove problematic since, in practice, it differs from its declared focus (SKRAN e EASTON-CALABRIA, 2020). For Skran and Easton-Calabria (2020), UNHCR defines self-sufficiency as the social and economic capacity that a person, family or community

has to meet their basic needs, but often promotes actions that consider only the economic bias. The self-sufficiency of refugees must incorporate economic, social, legal and individual aspects, as well as consider broader structural contexts that drive or promote it (SKRAN e EASTON-CALABRIA, 2020, p.17).

For Lenner and Turner (2019), the experience of the Jordanian Pact tries to reconcile the humanitarian and economic agendas. Even though it is supposedly considered a political success, it has many weaknesses concerning its actual effects on guaranteeing the self-sufficiency of all refugees in Jordan. When making a gender cut, Ritchie (2018) describes the precarious nature of the work of Syrian women in Jordan, Somali refugee women in Kenya, who, in addition to dealing with uncertain environments, do not have the support of the family, the community and the State. The Jordanian Pact still presents many barriers to guaranteeing the effective economic inclusion of refugees in Jordan, and policies based on human rights principles are still needed (AL-MAHAIDI, 2021).

In this context, Ilcan and Rygiel (2015) consider the tendency from the concepts of resilience and humanitarianism to be disturbing, where refugees are encouraged to accept the abject living conditions in the accompanies. In addition, these forms of management of refugee camps cause concern about promoting depoliticization and contentment with precarious living conditions (ILCAN; RYGIEL, 2015).

### 3.2.3 Refuge, disasters and environmentally forced migration

Ten documents have been identified that address the relationship between refuge, disasters and environmentally forced migration. The work of (WARNER et al., 2010) stands out, establishing the relationship between disasters of anthropological or natural origin and the progressive forced displacement of populations. There is a lack of consensus in the literature on the terminology to be used, with terms such as environmental refugees, environmental migrants, environmentally displaced people and others being found (WARNER et al., 2010). According to Warner et al. (2010), the main divergences revolve around the use of the terms migrants or refugees and their political and legal consequences, as they indicate how public policies will be thought and also promote the protection and guarantees of rights.

Still agree with Warner et al. (2010, p.694) :

The 1969 Organization of African Unity/African Union Convention (OAU Convention) governs specific aspects of



African refugee issues. The 1984 Cartagena Declaration on Refugees (Cartagena Declaration) concerns Latin America (Jambor 1992). It builds on the 1951 Refugee Convention definition of a refugee to also include people who have been forced to flee their countries due to events that have seriously disturbed public order [...] This definition of a seriously disturbed public order situation comes closer to some form of official international recognition, which could potentially cover those who have been forced to leave their country of origin due to environmental factors. However, these conventions only apply to individuals living in Africa and Latin America and do not call attention to specific environmental issues.

Without consensus, Warner et al. (2010) recommend directing actions towards the resettlement process, considering all its complexity, be it cultural, environmental, economic, institutional, political, and primarily social, by considering the importance of rebuilding social relations at its various levels.

In this context, Bettini et al. (2017) signal the risk of the growing discussion on climate migration with a focus on adaptation, where the resilience narrative occupies the space of effective policies to deal with climate change and migration, which would represent a step backwards.

Beine and Parson's (2015) work developed a two-sided macroeconomic model to test the relationship between climate factors and international migration. It concluded that there is a low relationship between the events when considering the long term. However, strong evidence has been identified that disasters cause an increase in the flow to urban environments (BEINE; PARSONS, 2015).

Also of note are papers that establish a relationship between refugees and the COVID-19 pandemic, namely: Wadhwa (2020), who describes the economic impacts caused by the Covid-19 Pandemic on Indian migrants, asylum in Japan; SHI and LIU (2020), who discuss the relationship of the COVID-19 pandemic to the internal displacement of migrants in China; and finally, Zanker and Moyo (2020) analyze the minor change in the governance of the refugee and migrant crisis during the COVID-19 pandemic in South Africa. For Zanker and Moyo (2020), there is evidence that the onset of the pandemic is being used as a justification for implementing a securitization agenda and the instrumentalization of xenophobic policies.

### 3.2.4 Stakeholder action in the humanitarian refugee crisis, based on the model of Fontainha et al. (2017)

The analysis using the 3PR model has flexibility in the visual representation, and it can insert arrows or change the thickness of the lines to represent the relationships between stakeholders, such as the coordination of DHO, whether vertical or horizontal or even relationships of cooperation and collaboration in disaster situations (FONTAINHA et al., 2017).

Thus, when analyzing the documents selected for the present LSR, nine documents are identified that directly discuss stakeholders' actions in the humanitarian refugee crisis.

In the public dimension, Luecke and Schneiderheinze (2017) work argue that G20 countries should more substantially support middle- and low-income countries that take in refugees. Also, in this dimension, Earle (2016) discusses that global public policy regarding the humanitarian refugee crisis needs to change to remain effective in an urbanized world, and municipal public systems need to be strengthened so that local governments can more quickly meet the basic needs for populations affected by disasters. Meanwhile, Gatrell's (2019) work addresses NGOs' role and relationship with the state, indicating that permanent solutions for refugees will only be possible in a scenario of national and international cooperation to reduce socioeconomic inequalities.

In this context, Bradley (2017) analyzes the role of IOM in the forced displacement regime and highlights that understanding the organizations' power relations and humanitarian commitments is key to understanding the regime itself. Furthermore, Bradley (2017) points out that IOM thrives by acting in an entrepreneurial manner, capitalizing on its reputation for efficiency, and has been gradually increasing its power and influence, but still has the challenge of articulating and socializing more actions based on humanitarian principles and human rights among member states.

In the private and people dimensions, the work of Yang, Liu, and Wang (2020) analyze the private sector from a corporate social responsibility perspective and the humanitarian refugee crisis, defending the importance of strategic partnerships between companies and the third sector. Companies often need to deal with scenarios of environmental, social and economic uncertainty caused by humanitarian crises, and this context can be used for NGOs to mobilize corporate resources (YANG; LIU; WANG, 2020).

From the beneficiaries' perspective, Teye and Yebleh's (2015) work that analyzes livelihood strategies created by Liberian refugees in Ghana stands out. The

macroeconomic environment of many vulnerabilities for refugee people, characterized by resource scarcity and a lack of employment opportunities (TEYE e YEBLEH, 2015). However, one of the main reasons that have ensured survival over the years is receiving help from friends, family, churches, and NGOs (TEYE e YEBLEH, 2015). To Teye and Yebleh (2015), refugee people in Ghana should be encouraged to form mutual support groups and leverage the benefits of such social networks.

Thus, Figure 12 is presented the visual representation of the 3PR model from the analysis of the nine identified papers. It is worth noting the need for more papers that discuss the role of the media and the little-explored relationship of direct providers in the context of the humanitarian refugee crisis associated with other disasters..

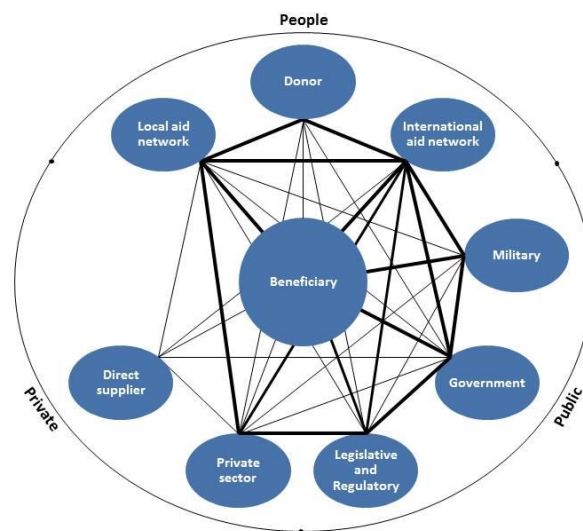


Figure 12- 3PR model applied to SLR results  
 Source: Fontainha et al. (2017) , adapted by the author.

From the visual representation process, a greater presence can be seen discussing the personal dimensions and the public sector, mainly between the Government and the international humanitarian aid network, but still with little focus on the beneficiaries.

### 3.2.5 Projects to support refugees

Four works are identified that propose solutions, technological or not, to support the process of reception and international protection of refugees. Reis et al. (2016) present a model, *Tech4SocialChange*, to bring researchers closer to real social problems through *crowdsourcing*. Based on experiences with case studies in sub-Saharan Africa, the work discusses the main challenges refugees face that can be supported through technologies, especially social networks, mainly promoting meetings between universities and NGOs (REIS et al., 2016).

In the field of design, the work of Hasselknippe, Reikvam and Nielsen (2014) presents the lessons learned from the process of designing products for the humanitarian market, where one of the challenges is that the end user is not the customer, showing that in the humanitarian market it is necessary to design in a centralized way in the users. In addition, the need to understand: the geographic context; the relationships between *stakeholders*, their connections and agendas; and the existing humanitarian market and its value chains (HASSELKNIPPE, REIKVAM e NIELSEN, 2014).

In this sense, Nielsen (2017) proposes a model that seeks to integrate end users and the various interests of *stakeholders*, creating a space of agendas. Furthermore, Nielsen (2017) describes the application of the DT method in the context of a humanitarian crisis, considering the complex systems and their multiple *stakeholders*. Among the main recommendations are the need to concentrate efforts to contextualize projects for end users, continuously designing for multiple agendas, and strengthening interrelationships within humanitarian systems that often present agenda conflicts (NIELSEN, 2017).

Finally, Armijos and Armijos (2017) present a case study of a training project for Colombian refugees, requested by an NGO to an Ecuadorian University and point to entrepreneurship as a way of inserting refugees into the labour market but highlighting the importance of support from universities and humanitarian organizations.

## **4. REDE REFUGIA, COLLABORATIVE SERVICE TO RELIEVE PAIN CAUSED BY FORCED DISPLACEMENT**

In this chapter, the results of the stages of the DT are presented, with a proposal for a solution that aims to promote the social, cultural and economic integration of people in the process of refuge. The first subsection presents the processes carried out in the discovery and empathy stage, including elaborating on the research protocol and data collection. The second subsection presents the interpretations performed mainly through insight cards. In the third subsection, the solution ideation processes are presented. Next, the fourth subsection presents the results of the prototyping and development of the *MVP – Minimum Viable Product*. The fifth and last subsection presents the usability test results and the proposed solution's evolution. This last step also includes validations for the proposition.

### **4.1. Discovery**

As described in Chapter 2, the discovery stage provided in the DT uses two primary sources of evidence to raise awareness of the research problem. The first is the SLR, presented in the previous chapter, and the second is the collection of data through interviews with people in the process of refuge in Brazil and representatives of governmental organizations, humanitarian organizations from the third sector, the private sector, in addition to representatives of an international agency for refugees operating in Brazil.

However, it is noteworthy that the discovery phase took place in two cycles and also included immersion in the literature on social innovation and collaborative services (MANZINI, 2016), evidence obtained through the observation of social innovation processes (JÉGOU e MANZINI, 2008) and informal conversations, as shown in Figure 13.

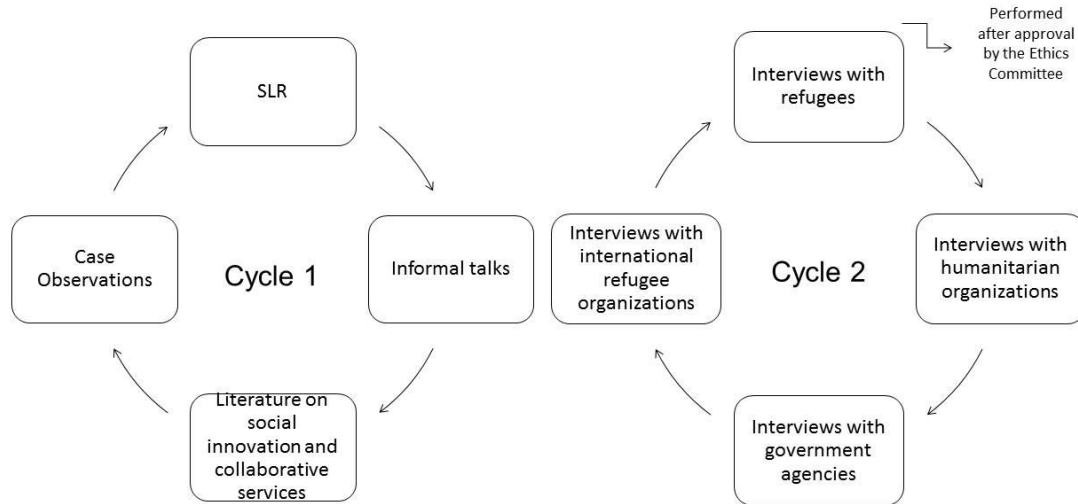


Figure 13- Immersion cycles performed in the discovery stage  
 Source: elaborated by the author (2022).

The evidence obtained from interviews contributes to the awareness of the problem related to the humanitarian crisis of refugees in Brazil.

#### 4.1.1 Immersion in the literature on service design, social innovation and collaborative services

During the research development period, one of the immersions is carried out through participation in the Service Design discipline, taught by Professor Carla Cipolla, in the Graduate Program in Production Engineering at the Federal University of Rio de Janeiro. At this stage of the research, there is an approach to the literature on Service Design, and the texts are used as a basis for observing possible cases of social innovation already prototyped by society.

Initially, the present researcher focuses on the literature that discusses the service category. According to Meirelles (2006, p.133):

Service is work in process, that is, workflow, which makes it possible to make intelligible the attributes commonly recognized by classic and contemporary authors in service activities, such as intangibility, simultaneity and non-stockability.

Service components are generally not physical entities but a combination of processes, people, skills and materials that must be appropriately integrated to result in the "planned" or "designed" service (GOLDSTEIN et al., 2002).

Next, immersion in the discipline allows reflections on social innovation and collaborative services. According to Jégou and Manzini (2008), social innovation is characterized by changes in how communities solve their problems and create new opportunities, mainly through behavioural changes and not necessarily technological or market changes.

Collaborative services are characterized by the deep involvement of the user, where the boundaries between producer and users are blurred, being able to act at the same time as a co-designer and as a service provider. (JÉGOU e MANZINI, 2008) .

It is worth noting that service design, when related to social innovations, requires new conformations and service architectures, particularly those based on solid interpersonal interactions, focusing on facilitating the quality of interpersonal relationships. (CIPOLLA e MANZINI, 2009) .

When relating the humanitarian crisis of refugees to the design of services, it is highlighted that the service experiences of a refugee person change during the process of reception and international protection and the needs can sometimes be food, sometimes transport, telecommunications or even safety (BOENIGK et al., 2021).

For Boenigk et al. (2020), most of the time, access to services is inadequate and can be labelled as hostile systems of refugee services, which leads to experiences of suffering. The collaboration approaches in research in services for reducing human suffering and improving well-being and quality of life stand out. (FISK et al., 2020).

#### 4.1.2 Observation of cases of social innovation and informal conversations

In the first cycle, an approach to the theme related to the humanitarian crisis of refugees is sought through reading about refuge and migration based on the results of the SLR. In parallel, some immersions are made for observations and informal conversations with enterprising refugee people. At this stage, we highlight the visit made in 2019 to Rio Refugia, an event organized by SESC RJ, Abraço Cultural and Feira Chega Junto, which has the support of Cáritas and UNHCR. This is an event in celebration of June 20, World Refugee Day, consisting of musical performances, cultural workshops from the countries of origin and also with a fair of enterprises managed by refugees, with businesses mainly related to gastronomy and fashion.

According to the event's organization, in addition to celebrating Refugee Day, the event also creates spaces for exchanges, connecting the "new Cariocas" to Brazilians (UNHCR, 2019).

On this occasion, collaborations between the institutions that promote the event are observed. In addition, through informal conversations, case reports of mutual help are obtained between people who participated in Rio Refugia, mainly with the encouragement for other refugees to become exhibitors and have the opportunity to generate some income.

Figure 15 shows a photograph of the Rio Refugia event during a musical performance by the Band composed of refugee people.

In the first cycle, an approach to the theme related to the humanitarian crisis of refugees is sought, through reading about refuge and migration, based on the results of the LSR. In parallel, some immersions are made for observations and informal conversations with enterprising refugee people. At this stage, we highlight the visit made in 2019 to Rio Refugia, an event organized by SESC RJ, Abraço Cultural and Feira Chega Junto, which has the support of Cáritas and UNHCR. This is an event in celebration of June 20, World Refugee Day, consisting of musical performances, cultural workshops from the countries of origin and also with a fair of enterprises managed by refugees, with businesses mainly related to gastronomy and fashion. .

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In Figure 15, there is a photograph of the Rio Refugia event during a musical performance by the Band, composed of refugee people.





Figure 14- Photograph of the Rio Refugia event in 2019 at SESC RJ Tijuca  
Source: author's photo (2020).

It is noteworthy that , from the initial informal conversations, the first insights about mutual collaborations emerge: and which are systematized in insight cards and presented in the next subsection.

#### 4.1.2 Elaboration of the protocol and submission to the research ethics committee

A research protocol is developed to guide data collection for the second cycle of immersion, consisting of interviews with representatives of organizations and refugees. It is worth noting that the research is by Resolution no. 466/12 of the National Health Council, which recommends a series of ethical aspects involving research with human beings (BRASIL, 2013). In this way, the following documents are prepared:

- a) Research project for submission to the Brazil Platform;
- b) Title page with authorization from the Directorate of the Alberto Luiz Coimbra Institute for Graduate Studies and Research in Engineering –

- COPPE/UFRJ to carry out the research project, available in APPENDIX A;
- c) Registry of Free and Informed Consent – RCLE, available in APPENDIX B;
  - d) Data collection instrument – refugees, available in APPENDIX C;
  - e) Data collection instrument – representatives of organizations, available in APPENDIX D;

Such documents are submitted, in January 2022, for analysis by the Research Ethics Committee of the Center for Philosophy and Human Sciences of the Federal University of Rio de Janeiro, obtaining approval in May 2022, according to an opinion no. 5.422.095, present in APPENDIX E.

The data collection instrument used with refugees is a semi-structured questionnaire based on categories defined by the LSR.

- a) Personal data, with questions related to gender, race, age, education, employment status and income;
- b) Refuge process and mutual collaboration, with questions about the main challenges, faced when arriving in Brazil, motivation for international displacement and receiving and offering help during the reception, protection and integration process;
- c) labour market and entrepreneurial process, with questions about the perception of self-sufficiency, motivation to undertake and income concerning the country of origin;
- d) Impact of covid-19, with a question about the impact on business and employment; and
- e) Use of technology, with questions about internet access, how help is sought and the use of social networks and applications.

The data collection instrument used with representatives of organizations is also a semi-structured questionnaire consisting of 10 questions about institutional actions for refugees, main challenges and overcoming strategies, analysis of the 3PR model (FONTAINHA et al., 2017), a mutual collaboration between organizations, impacts of the covid-19 pandemic on organizations and, finally, the use of technology and the main communication channels.

It is noteworthy that all research participants obtained consent provided by signing the RCLE, whether in the printed or virtual version, available on Google Forms, according to APPENDIX B

Such documents are submitted, in January 2022, for analysis by the Research Ethics Committee of the Center for Philosophy and Human Sciences of the Federal University of Rio de Janeiro, obtaining approval in May 2022, according to opinion no. 5,422,095, present in APPENDIX E.

The data collection instrument used with refugees is a semi-structured questionnaire based on categories defined from the LSR, namely: (i) personal data, with questions related to gender, race, age, education, employment status and income; (ii) refuge process and mutual collaboration, with questions about the main challenges faced when arriving in Brazil, motivation for international displacement and about receiving and offering help during the reception, protection and integration process; (iii) labor market and entrepreneurial process, with questions about perception of self-sufficiency, motivation to undertake and income in relation to the country of origin; (iv) impact of covid-19, with a question about the impact on business and employment; and (v) use of technology, with questions about internet access, the means by which help is sought and the use of social networks and applications.

The data collection instrument used with representatives of organizations is also a semi-structured questionnaire, consisting of 10 questions about institutional actions for refugees, main challenges and overcoming strategies, analysis of the 3PR model (FONTAINHA et al., 2017), mutual collaboration between organizations, impacts of the covid-19 pandemic on organizations and, finally, the use of technology and the main communication channels.

It is noteworthy that all research participants obtained consent, provided by signing the RCLE, whether in the printed or virtual version, available on Google Forms, according to APPENDIX B.

#### 4.1.3 Results of interviews with entrepreneurial refugee people

From May to August 2022, 10 interviews are conducted with refugees in the City of Rio de Janeiro, in person and virtually, via videoconference. The initial contact with the interviewees came through the indication of a member of a refugee association from the Democratic Republic of Congo and through contacts, e-mails and social networks of entrepreneurial refugee people available on the platform "Refugiados Empreendedores", an initiative UNHCR and the Global Compact. Participants are chosen randomly, considering only the following criteria: being or having gone through the refugee process in Brazil, being an entrepreneur, and being available for the interview. In Table 12, a summary of the participants' characterization is presented.

Table 12 - Characterization of the refugee people interviewed

<b>Genre</b>	80% of the participants are men and 20% women
<b>age group</b>	Between 22 and 49 years old
<b>Location</b>	North Zone and Suburb of the city of Rio de Janeiro and Baixada Fluminense.
<b>Country of origin</b>	80% of the Democratic Republic of the Congo 20% of Venezuelans
<b>Education</b>	40% Higher Education 20% technicians 30% High School 10% Higher Education in Progress
<b>employment status</b>	30% Unemployed with informal work 30% Formal employment and entrepreneurs 20% Formalized projects 10% Freelance

Source: the author (2022).

The people who participated in the interviews are characterized as follows: 80% of the participants are men, and 20% are women, aged between 22 and 49 years old, living in the North Zone, a suburb of Rio de Janeiro and Baixada Fluminense. 80% of respondents are people whose country of origin is the Democratic Republic of Congo, and another 20% are Venezuelans.

Regarding education: 40% of respondents have completed Higher Education, completed in their countries of origin; 20% have high school technical training, 30% have completed high school, and 10% attend higher education in Brazil.

Regarding employment and business situation: 30% are unemployed and work as street vendors informally; 30% have a formal job and also work in the field of food and typical foods; 20% have formalized enterprises; 10% work as *freelancers* and have activities related to cultural production, and 10% have a business, but still informally.

Finally, concerning income:

- 30% of respondents reported receiving less than one minimum wage.
- 30% received between 1 and 2 minimum wages.
- 40% claimed to receive between 2 and 4 minimum wages.

The results are organized by categories, namely: (i) asylum process and mutual collaboration; (ii) labour market and entrepreneurial process; (iii) impact of covid-19; and (iv) use of technology.

Before presenting the data, it is necessary to describe the interview's dynamics briefly. At first, contacts are made with the people interviewed and days, places and

times are scheduled. At the time of the interview, initial presentations are made, and the RCLE is made available for reading and signing, with a copy being given to the person interviewed. In addition, authorization is requested to record the interview to consult and process the data.

Seven questions are asked in the refuge and collaboration process category, and the results are presented in the tables below.

Table 13 summarises responses to the challenges faced in reception and protection in Brazil.

Table 13 - Answers from refugees about the main challenges for reception and protection in Brazil

Category	Refuge process and mutual collaboration
Question	What were your main challenges in Brazil's reception and protection process?
refugee person	<b>Answers</b>
Interviewee A	Finding a job and where to live
Interviewee B	He arrived in Brazil at the age of 12. She felt welcomed and could learn the language quickly with neighbouring children. The local culture and graffiti on the city's buildings were strange. Throughout his life in Rio de Janeiro, he lived in Madureira, Centro and Bonsucesso.
Interviewee C	He had difficulties with the language, especially when he got his first job.
Interviewee D	He reported that he has been in Brazil for nine years and that during this period, he had difficulties in regularizing his visa, with language and cultural issues.
Interviewee E	The interviewee arrived in Brazil in 2006. His biggest challenge was the language.
Interviewee F	He arrived in Brazil in 2015. The biggest challenge was finding a job due to language/communication.
Interviewee G	He had difficulties with the language. He reported that he received a dictionary from his father. In addition, he needed help with the employment documentation.
Interviewee H	The interviewee arrived in Brazil in 2015. His biggest challenge was the language. When he arrived, he rented a house and never used the Caritas shelter.
Interviewee I	I had an organized life in Venezuela, but the crisis worsened in 2017 – Language, documents, work and access to education. Then learn more about issues related to territories.
Interviewee J	The interviewee arrived in Brazil 10 years ago, coming from Congo. The biggest challenge was the search for work since I needed to learn the language.

Source: the author (2022).

It is noticed that language is the challenge that appears most frequently in the responses. However, aspects such as employment, education and knowledge about the territories are also pointed out as initial barriers to the reception in Brazil.

The second question is about the cause of international displacement, and the answers are summarized and organized in Table 14.

Table 14 - Answers from refugees about the cause of international displacement

Category	Refuge process and mutual collaboration
Question	What was the cause of the international displacement?
refugee person	<b>Answers</b>
Interviewee A	Opportunity for personal and professional growth – being able to maintain yourself.
Interviewee B	He accompanied his family, who were looking for a better job. Forced to move for reasons of survival.
Interviewee C	He came to Brazil for better living conditions and to promote his work as an artist.
Interviewee D	He was looking to improve his quality of life, and his family suffered political persecution.
Interviewee E	Forced to move due to political persecution by the Government.
Interviewee F	Searching for a new perspective on life. The war context influenced the decision to come to Brazil.
Interviewee G	Political persecution suffered by the father.
Interviewee H	Forced to move due to political persecution by the Government. The regime killed his father.
Interviewee I	Serious violation of human rights
Interviewee J	He already had family in Brazil and came in search of a better life.

Source: the author (2022).

The search for better living conditions is the primary motivation for international displacement. However, it is worth noting that reports of political persecution and severe and widespread violation of Human Rights are identified as the main factors that led to forced displacement and gave rise to the interviewee's possibility of applying for refugee status upon arrival in Brazil.

The third question is about the difficulties encountered with asylum applications in Brazil, and the results are presented in Table 15.

Table 15 - Responses about difficulties in applying for asylum and current status

Category	Refuge process and mutual collaboration
Question	Regarding the application for refugee status, what were the main difficulties? What is the current status?

refugee person	Answers
Interviewee A	Was an asylum seeker – Today has a residence visa
Interviewee B	He has recognized refugee status and has already entered the process of acquiring nationality.
Interviewee C	Refugee.
Interviewee D	Had difficulties arriving and has a refugee status
Interviewee E	Has refugee status.
Interviewee F	Has refugee status.
Interviewee G	He arrived as a refugee but is already naturalized.
Interviewee H	He does not have refugee status, but he has already registered.
Interviewee I	Even though they were applicants, they managed to obtain documents and access to education and health. No one in the federal police had the sensitivity to assist refugees.
Interviewee J	Has recognized refugee status.

Source: the author (2022).

The main difficulty reported by one of the people interviewed during the asylum application is the lack of sensitivity of the Federal Police agents in Brazil to assist people in the asylum process. It is noticed that 60% of the participants already have refugee status, 10% are asylum seekers, 10% are naturalized, and 20% have residence visas.

Below are the answers to questions related to receiving help in the reception process, as shown in Table 16.

Table 16 - Responses about receiving help during reception

Category	Refuge process and mutual collaboration
Question	Did you receive any help in the reception process? If yes, which one? From who?
refugee person	Answers
Interviewee A	Yes, from a family.
Interviewee B	Like her family, she received assistance from Caritas in the asylum application process. In addition, he had help from his uncle, who already resided in Rio de Janeiro.
Interviewee C	Yup. Help with housing and employment from a friend who works in construction.
Interviewee D	Yes, I had a contact in Brazil who helped at first.
Interviewee E	She had assistance from Caritas in the asylum application process. During the pandemic, he was financially supported by the institution.
Interviewee F	He had help from friends and Caritas in the asylum application process.
Interviewee G	Yes Participated in an event at Casa Rui Barbosa and got help obtaining documents.
Interviewee H	She had help from friends and Caritas in the asylum

	application process. He took a language course with Cáritas and was even referred to a job vacancy but was not hired because of the language.
Interviewee I	Had an acquaintance and stayed living with him for five months.
Interviewee J	When he arrived in Brazil, he landed in Brasília, where he received support from the Federal Government to regularize the documentation.

Source: the author (2022).

All the people interviewed report receiving humanitarian aid from organizations, Brazilians or even other refugees who have already established themselves.

Below are the answers to questions related to providing help in the reception process, as shown in Table 17.

Table 17 - Responses about providing help to other people in the reception process

Category	Refuge process and mutual collaboration
Question	Have you ever helped anyone else in the host process? If yes, what kind of help?
refugee person	<b>Answers</b>
Interviewee A	Everyone is going through a crisis. It helps the family and group of Venezuelans.
Interviewee B	As he came to Brazil as a child, he can only now help other refugees arriving in the country, especially with guidance on documentation for applying for refugee status.
Interviewee C	Friends.
Interviewee D	Support other people.
Interviewee E	Yup. I brought the whole family to Brazil.
Interviewee F	Yes, friends. It is part of a refugee association and helps with referrals to support organizations.
Interviewee G	Yup. Through a movement called SAPE – Society of Environments and Elegant People.
Interviewee H	Yes, friends.
Interviewee I	Yup. It helps other refugees here in Brazil and family members in their country of origin.
Interviewee J	He also had help from a friend and his family when he arrived in Rio de Janeiro.

Source: the author (2022).

The main reports are about helping family members in their countries of origin and also helping family members and friends to come to Brazil.

Below are the answers to questions related to receiving aid from the Brazilian Government, as shown in Table 18.



Table 18 - Responses about receiving support from the Brazilian Government

Category	Refuge process and mutual collaboration
Question	Have you received any support from the Brazilian Government? If yes, which one? Which sector?
refugee person	<b>Answers</b>
Interviewee A	Not.
Interviewee B	Received Emergency Aid during the pandemic.
Interviewee C	It did not receive direct help from the Brazilian Government.
Interviewee D	It did not receive help directly from the Brazilian Government.
Interviewee E	Received Emergency Aid during the pandemic.
Interviewee F	No, from no sphere.
Interviewee G	It did not receive direct help from the Brazilian Government.
Interviewee H	Received Emergency Aid during the pandemic.
Interviewee I	Not directly.
Interviewee J	Yup. In addition to documentation, he received "Bolsa Família" and Emergency Aid during the pandemic.

Source: the author (2022).

For 50% of the participants, the Brazilian Government did not offer any help. However, the other 50% report receiving help from the Brazilian Government, especially during the Covid-19 pandemic with the receipt of emergency aid.

Below are the answers to questions related to receiving aid from humanitarian organizations, as shown in Table 19.

Table 19 - Responses about receiving aid from humanitarian organizations

Category	Refuge process and mutual collaboration
Question	Have you received any support from humanitarian organizations? If yes, which ones? What kind of support?
refugee person	<b>Answers</b>
Interviewee A	He worked at Migraflix as a community agent, has already taken a course with Cáritas and requested refuge, improvement course and confectionery by Cáritas, Toti Diversidade. He has already participated in Mawon's entrepreneurship projects, sales acceleration and seed capital.
Interviewee B	Yes, from Caritas, which even provided assistance that allowed him to live alone. He stated that his family received support from other institutions throughout his life, but he can't remember the name.
Interviewee C	Yup. He received help from a refugee house in Botafogo.
Interviewee D	Yup. He received help from Caritas with food.
Interviewee E	Yes, from Caritas.
Interviewee F	Yes, from Caritas.
Interviewee G	Yup. He received help from Casa Rui Barbosa.

Interviewee H	Yes, from Caritas.
Interviewee I	Cáritas – Cultural Embrace (project) – Mawon – Gastromotiva (they train chefs) – IKMR (aimed at refugee children).
Interviewee J	Yes, from Caritas, which once donated a basic food basket.

Source: the author (2022).

All participants report receiving help from humanitarian organizations at some point in the asylum process. The prominent organizations cited are Cáritas – RJ, linked to the Catholic Church, Mawon, Migraflax, Toti Diversidade and IKMR, which has actions aimed at children. Also mentioned are Casa Rui Barbosa, in the city of Rio de Janeiro, and the projects Abraço Cultural and Gastromotiva.

Among the primary forms of help are shelter, housing assistance, food (basic food baskets), professional training in the areas of entrepreneurship and technology, and support for entering the job market.

Four questions about income and self-sufficiency are asked in the Labor market and entrepreneurial process category. Table 20 presents the answers about the first sources of income when arriving in Brazil.

Table 20 - Answers about creating a business as a primary source of income

Category	Labour market and entrepreneurial process
Question	creation of the business as the first source of income?
refugee person	<b>Answers</b>
Interviewee A	It wasn't; he works and undertakes.
Interviewee B	He already had several sources of income. He has been a street vendor and hairdresser and has worked with multilevel marketing. He started working at the age of 17. Afterwards, he became interested in the financial market and sought to qualify to try to enter the area. The respondent reported that he even applied for an interview to work at a bank but was not selected. He reflected on the challenge of entering the financial market due to racism and xenophobia. In recent months, he opened a barbershop with a new acquaintance in Maré, which did not take off due to disagreements with his partner, which made him leave the barbershop with everything inside, afraid for his family's safety, who lives in the community. Afterwards, in March/2021, he worked with chlorine/disinfectant resale and was introduced to the digital market by an influencer friend. In digital terms, it created the Saturn Five Agency, which developed activities aimed at a digital consultancy for influencers, the affiliation market (resale of courses) and shaving products (Minoxidil).
Interviewee C	It is not the first source of income.

Interviewee D	My first job was as a liquor warehouse driver.
Interviewee E	When he arrived first, he worked with his sister in the hair salon. Afterwards, he opened his barber shop in the Vaz Lobo neighbourhood. He clarified that during the pandemic, he managed to hold the ends but then had to close due to debts. It's in the sister's hall again.
Interviewee F	When he arrived, he lived on odd jobs and provided informal services. At the beginning of the pandemic (2020), he started an online car parts resale business motivated by a friend who already had a store.
Interviewee G	Not. Need to work with a formal contract.
Interviewee H	He has already worked as a waiter in a restaurant in Norte Shopping.
Interviewee I	It was the woman's first fountain
Interviewee J	Since he arrived, he has been working as a trancista. Thus, this was his first source of income in Brazil.

Source: the author (2022).

For 70% of the participants, creating their businesses was not their first source of income. Of these, 40% manage to enter the formal job market and the other 30% in the informal market. Another 30% had entrepreneurship as their first income but had the support of other family members.

Below are the answers to questions about the perception of self-sufficiency, as shown in Table 21.

Table 21 - Answers about self-sufficiency

Category	Labour market and entrepreneurial process
Question	How do you perceive your self-sufficiency?
refugee person	<b>Answers</b>
Interviewee A	It is not yet self-sufficient. He still wants to have his own house and means of transportation.
Interviewee B	In terms of self-sufficiency, it still needs more and more income. However, he believes in the future of the agency. He stated that his agency currently has three people in profile management and eight people in the info product launch. He clarified that his income was withdrawn after paying the agency's expenses.
Interviewee C	Income is not enough. The interviewee reported that I dream of making a living from art.
Interviewee D	What you earn today is not enough to support yourself.
Interviewee E	In terms of self-sufficiency, you still need support networks.
Interviewee F	In terms of self-sufficiency, he is a formal entrepreneur and hopes to expand his business.
Interviewee G	Income is not enough.
Interviewee H	In terms of self-sufficiency, you still need support networks. Currently, his primary source of income is street vendors, but he also provides services. Between

	working as a regular or self-employed, he prefers a formal contract.
Interviewee I	With the enterprise alone, it is not possible to maintain the income
Interviewee J	In terms of self-sufficiency, it still needs more and more income. It is still dependent on Bolsa Família.

Source: the author (2022).

All participants report not feeling self-sufficient to meet their needs. There are reports about the need for support networks and help through government aid. In addition, some point out that even with the enterprise, they need to work formally to guarantee a basic income.

Below are the answers to questions about the motivation to undertake, as shown in Table 22.

Table 22 - Answers about entrepreneurial motivation

Category	Labour market and entrepreneurial process
Question	What is the primary motivation to undertake this?
refugee person	<b>Answers</b>
Interviewee A	Need to undertake. It needs capital to grow and not depend on other people to grow. Want to set up a cafe.
Interviewee B	He understands that being an entrepreneur is a vocation. He stated that in the short term, he undertakes for survival, but in the long term, he wants to be able to help other people with his work.
Interviewee C	Enjoying working with art, but also for income generation.
Interviewee D	Seek better employment conditions.
Interviewee E	already had a salon in Congo. He sees the advantage of having his own business.
Interviewee F	She works to support her 6 - year-old son, who is still in Congo. He wants to give him a better life.
Interviewee G	Income generation and form of cultural expression
Interviewee H	Work for subsistence. Working as a street vendor is complicated. Reports theft of goods and reiterates wanting to work for a company.
Interviewee I	income generation
Interviewee J	* There was no time to respond.

Source: the author (2022).

The primary motivation for starting a business is generating income, guaranteeing subsistence and improving the lives of the people interviewed and their families. We highlight the response of interviewee B, who points out that today he undertakes for his own subsistence but hopes that he can help other people in the future.

The answers to questions about support for entrepreneurship are presented below, as shown in Table 23.

Table 23 - responses on support during the entrepreneurial process

Category	Labour market and entrepreneurial process
Question	Did you have any support in your entrepreneurial process? If so, from whom?
refugee person	<b>Answers</b>
Interviewee A	Yup.
Interviewee B	There was no support from others.
Interviewee C	Yup. He worked as a ceramist, designer and in production.
Interviewee D	He received help from Brazilians to get a job.
Interviewee E	There was no support from others. She asked Caritas for help but was unable to do so.
Interviewee F	There was no support from others.
Interviewee G	Yup. It has support from Mawon.
Interviewee H	There was no support from others.
Interviewee I	Mawon
Interviewee J	When she needed a job, upon arriving in Rio de Janeiro, a friend took her to the Mercado Popular de Madureira, where the trancistas set up their salon.

Source: the author (2022).

Most participants, 60%, report having received support to enter the job market, mainly with indications for job opportunities. The humanitarian organization Mawon is cited in two reports on support for entering the job market.

Below are the answers to questions about family income here in Brazil compared to the country of origin, as shown in Table 24.

Table 24 - Responses on family income in Brazil x country of origin

Category	Labour market and entrepreneurial process
Question	Is your family income better today than in your home country?
refugee person	<b>Answers</b>
Interviewee A	Income here is better than in Venezuela.
Interviewee B	Yes, even though I came to Brazil new and didn't remember well what life is like in the Congo.
Interviewee C	There I would receive better than in Brazil.
Interviewee D	The respondent said that this question is difficult to answer, as he cannot assess how he would be in his country of origin.
Interviewee E	Not. The income there is better. At first, it was fine.
Interviewee F	The income here in Brazil is better than in the Congo.
Interviewee G	In Brazil, income is a little better.

Interviewee H	It's a complex question. In the Congo, there are jobs, but it is challenging to be hired because you need to have an indication. Although you can look for it, there is only an interview here. He says he still has family in the Congo.
Interviewee I	There's no comparison. In Brazil, it is better.
Interviewee J	Yup.

Source: the author (2022).

Of the people interviewed from the Democratic Republic of Congo, two of them indicated that the income there would be better than in Brazil. Another six people in Brazil manage to generate a higher income. We highlight the answer given by interviewee D, who says it is a difficult question to answer because he is unable to assess how he would be in his country of origin. The Venezuelan people interviewed reported that income in Brazil is better.

Below is the impact category of the pandemic, organized in Table 25.

Table 25 - Responses on the impacts of the Covid-19 Pandemic

Category	impact of covid-19
Question	How has the Covid-19 pandemic impacted your business?
refugee person	<b>Answers</b>
Interviewee A	Business during the pandemic, sales increased. And increased competitiveness,
Interviewee B	He stated that the pandemic had a negative impact; however, as he was already implementing the digital enterprise (agency), he did not suffer as much. He clarified that he received Emergency Aid during part of the pandemic, which made it easier for his income during the period to be higher than the previous income or even the current one.
Interviewee C	The pandemic generated a loss of employment, which was the primary source of income.
Interviewee D	The covid-19 pandemic has had an impact on life, as it has led to unemployment and is having difficulties re-entering the job market.
Interviewee E	He stated that the pandemic had a negative impact. He stated that he could not afford the rent for the hall, which was R\$1,500.00, and its maintenance.
Interviewee F	He said that although he started his business just before the pandemic, he managed to get through the worst. The pandemic made business difficult because everything was closed at a certain point, and I couldn't find suppliers to serve the clientele.
Interviewee G	The pandemic had a substantial impact on the cultural sector and, consequently, on its activity.
Interviewee H	He stated that the pandemic had a negative impact but that his income increased during the Emergency Aid period.

Interviewee I	The impact of confinement was not as strong. Life was already mediated by technology. He started participating in a project that generated a fixed income and was motivated to reinvent himself.
Interviewee J	He stated that the pandemic had a negative impact, which is still seen today with the lack of customers. However, she clarified that she is a beneficiary of Bolsa Família and that she received Emergency Aid during part of the pandemic.

Source: the author (2022).

The people interviewed, particularly Congolese, signalled a very negative impact of the Covid-19 pandemic, where 3 of the ten respondents were unemployed during this period. For those who were already doing business before the pandemic, the impacts are linked to the reduction in the number of customers and difficulties in finding raw material suppliers. In contrast to Venezuelan refugees, who work with typical foods from their countries, they first needed to digitalize, and thus, sales during the pandemic increased. However, over time there was also an increase in competition.

Below are the three questions and answers about the use of technologies, as shown in Table 26.

Table 26 - Responses about the use of digital technologies

Category	use of technology
Questions	<ul style="list-style-type: none"> <li>- Do you use a smartphone?</li> <li>- Where do you seek help?</li> <li>- Do you use any digital technology (social networks/applications)?</li> </ul>
refugee person	<b>Answers</b>
Interviewee A	<ul style="list-style-type: none"> <li>- Yes. What he uses most is his cell phone.</li> <li>- Through the Phone;</li> <li>- WhatsApp, Facebook and Email.</li> </ul>
Interviewee B	<ul style="list-style-type: none"> <li>- Yes. And also the computer.</li> <li>- Through WhatsApp ;</li> <li>- Instagram, Tiktok, Facebook, Youtube, creative platforms and Whatsapp.</li> </ul>
Interviewee C	<ul style="list-style-type: none"> <li>- Yea.</li> <li>- My cell phone.</li> <li>- Instagram.</li> </ul>
Interviewee D	<ul style="list-style-type: none"> <li>- Uses computer and cell phone;</li> <li>- Mainly by cell phone;</li> <li>- Instagram, Facebook and WhatsApp.</li> </ul>
Interviewee E	<p>Yes, although I don't like it. Use/go more for business and family contact.</p> <ul style="list-style-type: none"> <li>- Through WhatsApp. He pointed out Caritas' "rolling in" to help refugees.</li> </ul>

	- WhatsApp.
Interviewee F	- Yes, but he doesn't like social media. Just use it for work. He also uses the computer. It has a computer just for business management. - Through the Phone. - Business WhatsApp and Instagram.
Interviewee G	- Yes. - Online. - Instagram and Twitter.
Interviewee H	- Yes. He reported that he had been robbed at the Rodoviária and Central do Brasil but uses the internet regularly. - Through the Phone. - WhatsApp, Facebook and Email.
Interviewee I	- (Computer/ Smartphone) Both. - Online. - Instagram – WhatsApp
Interviewee J	- Yes. - Did not answer. - Instagram, Facebook and WhatsApp. For personal use only

Source: the author (2022).

All interviewees have access to smartphones and the internet. Some reports also use the computer, mainly for professional matters. Most use their cell phones when asked which technological means they eventually ask for help. As for digital social networks, the people interviewed report using WhatsApp, Instagram, Facebook, Twitter and email.

#### 4.1.4 Results of interviews with representatives of organizations

Between November 24, 2021, and May 23, 2022, 10 interviews were carried out with representatives of organizations. At this point in the research, the primary needs and challenges faced by organizations that work in the humanitarian crisis of refugees in Brazil are identified. The interviews with representatives of the third sector and private and governmental organizations stand out, guaranteeing different perspectives and actions.

Table 27 presents the list of organizations interviewed, with information such as the type of organization, the date of the interview and the position held by each interviewee.



Table 27 - List of representatives of organizations interviewed

<b>Organization Identification</b>	<b>Type</b>	<b>interview date</b>	<b>interviewee's position</b>
<b>Viva Rio</b>	Third sector	11/24/2021	Project Manager and Project Advisor
<b>Cáritas</b>	Third Sector/Religious	12/07/2021	General Coordinator of the Assistance Program for Refugees and Asylum Seekers - PARES
<b>Toti Diversidade</b>	Private Initiative and Third Sector	12/09/2021	CEO
<b>Secretaria Estadual de Assistência Social e Direitos Humanos do Estado do Rio de Janeiro</b>	Government	01/27/2022	Superintendent for the Promotion of Human Rights and Coordinator for Migration and Refuge
<b>Cruz Vermelha Brasileira</b>	Third sector	08/02/2022	Family side re-establishment coordinator, coordination intern and coordination volunteer.
<b>Comitê Nacional para Refugiados – CONARE</b>	Government	02/02/222	CONARE General Coordinator at RJ-Ministry of Justice
<b>Mawon</b>	Private initiative	03/28/2022	President
<b>Refúgio 343</b>	Third sector	04/05/2022	Director
<b>Agência da ONU para Refugiados – ACNUR</b>	Third sector	04/14/2022	livelihood officer
<b>OPERAÇÃO ACOLHIDA</b>	Government Military	– 05/23/2022	General Logistics Coordinator

Source: the author (2022).

The contacts of the interviewees are obtained through searches on social networks and the internet about organizations that work with refugees.

It is worth mentioning that organizations act in one or more stages of the asylum process in Brazil, mainly in reception, protection and integration.

The results follow the order of the questions defined in the data collection instrument, according to APPENDIX D.

The interviews begin with a presentation by the researcher, and the first question invites the organizations' representatives to describe their organizations' main actions. Table 28 presents the summaries of responses.

Table 28 - Main actions developed by organizations

<b>Questions</b>	<b>What are the main actions developed by the organization concerning refugees?</b>
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Organization	Answers
<b>Viva Rio</b>	They created the program "O Haiti é Aqui" (Haiti is here), which collaborates by helping with identification (withdrawal of documents) and teaching the Portuguese language. Today, the project also works with refugees of other nationalities. They partner with the Federal Police and respond to demands from different parts of the country. They perform an average of 800 calls per year. They define themselves as a local help network.
<b>Cáritas</b>	It was the first organization to work with refugees in the country and today has over 45 years of experience with the cause. The first UNHCR office was opened in Brazil at the request of Caritas. Initially, the actions were welcoming and protective. Afterwards, he also started to work with integration. Today it operates on four fronts: reception (food, bath, documentation, etc.), legal protection (legal demands), legal integration (social assistance), and mobilization (awareness and education of Society concerning refugees).
<b>Toti Diversidade</b>	The activities are organized into four major stages: selection, training, hiring and follow-up. The objective is not to offer technology education but to connect people to the world of work. The startup arises from its founders' participation in the ENACTUS project at CEFET-RJ. For two years, the founders conducted in-depth research on refugees. In 2019 it became official as a social business.
<b>Secretaria Estadual de Assistência Social e Direitos Humanos do Estado do Rio de Janeiro</b>	Coordination has existed for at least 13 years and manages public policies for the migrant and refugee population. In 2009, the state committee dedicated to the cause was also created.
<b>Cruz Vermelha Brasileira</b>	The Red Cross emerged from soldiers' service in a war, and it is in 172 countries worldwide. The Re-establishment of Family Ties (RLF) acts as part of prevention and search for whereabouts in situations of war or disasters and also in situations of refuge and migration. Acts in reception and protection.
<b>Comitê Nacional para Refugiados – CONARE</b>	Two-pronged action. Coordination of eligibility technically and operationally (scheduling, screening, interviews and opinions). Coordination of asylum policies (among the services is the development of SISCONARE). There is still no national migration policy in Brazil. The institution of offices, like the one in RJ, is an attempt to regionalize politics and get closer to those who work at the front.
<b>Mawon</b>	Created in 2017, today, it is formalized as an NGO and private initiative. It takes a stand against the stereotyped view of migrants that conceives them as “poor people” who need donations. Organizational focus: Education with a cultural approach, including income generation and employability. Supports migrants' legal issues. Offers Portuguese language courses. The organization has an

	Education team of 15 to develop trials with mentors to support migrants.
<b>Refúgio 343</b>	<p>Activities began in São Paulo with the reception of people internalized by the Acolhida Operation. They are currently also in Boa Vista – Roraima and work on two fronts:</p> <ul style="list-style-type: none"> <li>• Internalization: construction of processes to outline the profiles of the beneficiaries and, through a national prospection, seek partnerships with companies and places that can accommodate refugee people; Helps in the journey of interiorization and accompany people for three months.</li> <li>• Education: before the interiorization process, there was training in Portuguese (60h) and intercultural education, which is a compilation of information about Brazil, such as access to the SUS, rights and duties under the CLT, access to education (public, private) in a total of 32 hours.</li> </ul>

<b>Agência da ONU para Refugiados – ACNUR</b>	<p>Serving the refugee population. Asylum seekers, stateless persons and populations need international protection in Brazil.</p> <p>UNHCR in Brazil focuses on working in partnership with the Brazilian Government, civil society and organizations in responding to the humanitarian crisis. He highlighted the international recognition of the Brazilian response. The main objective is not to replace the State but to make the State, including state and municipal governments, exercise their responsibilities and eventually act by complementing these actions with:</p> <ul style="list-style-type: none"> <li>• Reception: About 10,000 people are served in the shelters managed by UNHCR and partner organizations within the scope of the Acolhida Operation;</li> <li>• Integration and socioeconomic inclusion: support the processes of interiorization and accessing shelters in other regions of Brazil; He highlighted a survey that identified that internalized refugees have, on average, twice the income. However, it notes that the level of insertion of Brazilians into the labour market is still much higher than that of Venezuelans who have moved to the interior. There are significant inequalities.</li> <li>• A livelihood strategy is divided into the following axes: (i) employability in partnerships with the private sector, he cited the platform called "Companies with refugees", which turned into a business forum (about 10,000 people hired); (ii) empowering refugee women, training and connecting with companies. (iii) Entrepreneurial Refugees Platform, with around 100 entrepreneurs; (iv) access to basic education and vocational education, partnerships with SENAC,</li> </ul>
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SETRAN, and SENAI. In the case of higher education, he mentioned the Sérgio Vieira de Melo Chair; (v) access to the financial system. (vi) advocacy.

They work in partnership with municipal and State committees to formulate public policies.

#### **OPERAÇÃO ACOLHIDA**

Today, Acolhida Operation has 14 shelters, including indigenous and non-indigenous people. Serves around 8,000 people, offering three meals a day. There are three initial reception structures, Boa Vista, Manaus and mainly Pacaraíma. At these posts, people apply for documents and undergo a health assessment. One hundred twenty agencies are working simultaneously, and about 600 military personnel. The cost of the Operation per year is 250 million reais. The main expenses are with interiorization, making about 2 thousand interiorizations per month. 74,000 Venezuelans internalized.

Internalization modalities:

- Shelter by shelter: moving people from the shelter in Boa Vista and Pacaraíma to shelters in other cities;
- Family reunification: usually, the head of the family comes and settles in and then brings the family and eventually with the social gathering, when he brings friends.
- Flagged job vacancy: Venezuelan people already come with the indication of job vacancies.

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Source: interviews with representatives of organizations organized by the author (2022).

It is worth mentioning that in this research, the main stakeholders active in the Humanitarian Crisis of Refugees in Brazil are interviewed, such as the representation of CONARE - National Committee for Refugees, the collegiate body responsible for granting refugee status in Brazil, Cáritas, which represents society civil society at CONARE, UNHCR, an international organization for refugees linked to the UN, and the representation of Acolhida Operation, the main action in response to the humanitarian crisis of refugees in Brazil.

In addition, humanitarian organizations such as Mawon are interviewed, a reference in the insertion of people in the process of refuge in the labour market, idealized by a person who went through the process of forced displacement, characterizing a service of migrants for migrants.

Other organizations stand out, such as Toti Diversidade, created within the scope of the Federal Network of Professional and Technological Education, offering professionalization in Information Technology – IT for refugees. Viva Rio, a reference in supporting documentation requests, Refúgio 343, which operates in the State of Roraima in Brazil, and the Brazilian Red Cross, with various actions, in particular, in the re-establishment of family ties, are also interviewed.

The representation of the public power of the State of Rio de Janeiro is also interviewed through the Secretariat of Social Assistance and Human Rights - SEASDH, which operates in the State Intersectoral Policy Committee for Attention to Refugees and Migrants.

The second question is about the main challenges faced by organizations, and the summaries of the responses are presented in Table 29.

Table 29 - Answers on the main challenges of organizations in facing the humanitarian crisis

Questions	<b>What are the organization's challenges in working in the refugee humanitarian crisis ecosystem?</b>
Organization	<b>Answers</b>
<b>Viva Rio</b>	Fundraising to run the projects. Need to create an office for service and expand the work team.
<b>Cáritas</b>	Financing. He highlighted that the richest countries are reducing transfers to the UN to help border countries with destabilized territories. They survive without public resources. Difficulties with the refugees themselves in accessing public policies. The pandemic has compounded this.
<b>Toti Diversidade</b>	He made reference to the company's growth challenges. The need to aggregate knowledge. Bringing knowledge from outside through consulting and advisory services on the Operation of technology companies. Another challenge was getting closer to other companies, increasing revenues and consolidating itself as a social business.
<b>Secretaria Estadual de Assistência Social e Direitos Humanos do Estado do Rio de Janeiro</b>	Make people aware that social assistance policies are temporary and that independence is needed. Documentary, language, school certification, employment, racial prejudice and other issues pose challenges for Social Assistance.
<b>Cruz Vermelha Brasileira</b>	Contribute to sensitizing the organization's departments and the population in general in relation to the cause of refugees and facing prejudice (educational action). It is

an internal and external challenge. The third sector should act in a complementary way and ends up acting on the front line due to the absence of public policies and the unsatisfactory performance of the Government.

**Comitê Nacional para Refugiados – CONARE**

Reception and local integration of migrant indigenous populations. Such populations are not included in the Acolhida Operation. 2. The fragmented government structure, divided into layers, makes it challenging to serve the public. Need to establish and publicize flows. Another fundamental point is to consider intersectionality in the formulation and execution of policies, as advocated in the literature.

**Mawon**

Financing is one of the main challenges. Filter sponsorships based on the organization's values. For example, they rejected UN funding because it was intended only for a specific group of migrants. According to the interviewee, it is against this type of initiative, which is segregation. National Migrant Network meeting. The US is taking in Ukrainian migrants but persecuting Haitian migrants. Challenges of migrants: the socioeconomic situation in Brazil. It's not Europe, and it's not the USA. Wages are low. Bureaucracy is also another challenge. Some federal police are unprepared to deal with refugees, and the site sometimes does not work. The bureaucracy gets in the way and puts the migrant in a more vulnerable situation. Black migration in Brazil is very difficult.

**Refúgio 343**

- The main challenge is financing. Today the fundraising method is through donations, which come from partnerships with companies, and monthly and recurring donations. They have their fundraising platform.
- Expectation management. Make refugees learn more about labour relations in Brazil and entrepreneurs' expectations.

**Agência da ONU para Refugiados – ACNUR**

- Training of stakeholders, organizations and government representatives;
- Accompany people in the interior, around 73,000 people in 800 municipalities;
- How to work on issues related to xenophobia.

**OPERAÇÃO ACOLHIDA**

- The challenge is, with planning, to make the transition to the ministries that should be in charge of the Operation. He highlighted that the federal committee of the Operation hosted today is composed of 11 ministries and commanded by the Civil House. There are three subcommittees, namely: (i) reception and identification of migrants, managed by the Ministry of Justice; (ii) shelter and interiorization, managed by the Ministry of Citizenship; (iii) health, managed by the Ministry of Health. It is noteworthy that the Ministry of Defense makes up the three subcommittees along with other

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ministries.

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Source: interviews with representatives of organizations organized by the author (2022).

It is noticed that humanitarian organizations' main challenge is linked to raising funds and financing actions. Some reported getting support from international organizations such as UNHCR and IOM and participating in public notices, such as those of the Ministry of Justice in Brazil. For CONARE, there are challenges related to serving indigenous refugee populations and the need to consider public policies based on the intersectionality of the populations served.

Raising the awareness of the private sector and the population, in general, is also identified as a challenge, especially in the fight against racism and xenophobia.

The challenges faced by UNHCR and Operation Acolhida stand out. The first points out the difficulties in monitoring people who are internalized in Brazil, and the second report the need to plan and make the transition from the military to other ministries that should be in charge of the response operation to the Refugee Crisis in Brazil.

The third question is about the strategies for overcoming the organizations' challenges. Summaries of the main responses are in Table 30.

Table 30 - Answers on strategies to overcome the challenges of the organization

Questions	How do you see yourself trying to overcome the challenges mentioned?
<b>Organization</b>	<b>Answers</b>
<b>Viva Rio</b>	Participation in public funding notices. Currently, efforts are being made to create fundraising strategies with the private sector.
<b>Cáritas</b>	Participation in publications. Fundraising campaigns. Activating the media to give visibility to the cause. Launch of the Trampolim Platform.
<b>Toti Diversidade</b>	The decision not to live on donations. It sees itself as an organization that lives off the sale of contracting services through different formats. Use two CNPJ (company and NGO) to have more excellent coverage when hiring.
<b>Secretaria Estadual de Assistência Social e Direitos Humanos do Estado do Rio de Janeiro</b>	Visits to institutions to learn about demands. Offer of Labor Law course. Booklets on health and other topics to disseminate important information.

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<b>Cruz Vermelha Brasileira</b>	Bureaucracy for entering the world of work, the stigma that refugees will take opportunities away from Brazilian workers and the issue of language and documentation, housing, transportation, and food, among others
<b>Comitê Nacional para Refugiados – CONARE</b>	Conducting training for institutions that are at the forefront. Participation in discussion groups, such as the one that discusses indigenous issues in the Acolhida Operation.
<b>Mawon</b>	Disclosure of work. Today it does not have a physical office and has started operating online. The company that helps fund the NGO, especially the fees (accountant...) that are generally not covered by funding.
<b>Refúgio 343</b>	<ul style="list-style-type: none"> <li>- Expansion of the scope. Ex. place actions at alternative times, weekends and night shifts.</li> <li>- Fundraising through public notices;</li> <li>- Improved communication during the education process for refugees.</li> </ul>
<b>Agência da ONU para Refugiados – ACNUR</b>	-
<b>OPERAÇÃO ACOLHIDA</b>	- In 2020, the Minister of Defense requested that the Commander of the humanitarian logistical task force draw up a transition plan, setting up infrastructure in all Brazilian states. There is a transition plan that needs tweaking.

Source: interviews with representatives of organizations organized by the author (2022).

The main strategies for the financing challenges are: participating in public notices, carrying out awareness campaigns, seeking resources from the private sector, and engaging the media to give visibility to the actions.

Public authorities, represented by CONARE and SEASDH, have offered training workshops for institutions at the forefront and for people in the process of refuge. UNHCR has also offered training and dialogue with the main stakeholders in search of solutions.

Operation Acolhida in 2020 prepared a transition plan from the Armed Forces' humanitarian logistics operation to other ministries. However, the representative points out that adjustments are still necessary and that the Covid-19 pandemic negatively impacts the progress of the transition.

The fourth question is about how organizations perceive the challenges of people in the asylum process. The summary of responses is presented in the Table 31.



Table 31 - Responses on how organizations perceive the challenges of refugees

Questions	How do you perceive the main challenges faced by the beneficiaries of the actions you propose?
<b>Organization</b>	<b>Answers</b>
<b>Viva Rio</b>	The biggest challenge is employment. Other challenges relate to the prejudice they face and adaptability issues, emphasizing language and the need to learn Portuguese.
<b>Cáritas</b>	Even though Brazil is a signatory of international agreements, the interviewee points out that historically it has not had an effective involvement with the subject and exemplifies the delay in legislative progress, citing refugee and migration laws. He points out that Brazil prefers to receive European, white, heterosexual and wealthy migrants. The LGBT population, blacks, Latinos and the poor face more difficulties settling in the country. Difficulties in accessing public services. Many migrants who entered the country were unable to take the vaccine. Unemployment. And the distance from the place of residence (West Zone) concerning the places of work. Violence with the militia in the place of residence. Language. Portuguese learning. Difficulties in finding a place in the job market
<b>Toti Diversidade</b>	The main challenge is the insertion into the world of work. It synthesizes the challenges into three: documentation, housing and employability.
<b>Secretaria Estadual de Assistência Social e Direitos Humanos do Estado do Rio de Janeiro</b>	Facing xenophobia, racism, and difficulties concerning the recognition of professional training due to documentation and insertion in the world of work.
<b>Cruz Vermelha Brasileira</b>	Bureaucracy for entering the world of work, the stigma that refugees will take away opportunities from Brazilian workers and the issue of language and documentation, housing, transportation, and food, among others.
<b>Comitê Nacional para Refugiados – CONARE</b>	
<b>Mawon</b>	
<b>Refúgio 343</b>	<p>- Challenges related to the more extended stay of "minorities" in shelters, mainly single mothers, elderly people, PCDs and LGBT people.</p> <p>Companies typically want single, childless men between the ages of 25 and 45. There are reports of men who omit having families to get jobs.</p>
<b>Agência da ONU para Refugiados – ACNUR</b>	<p>- Access to work. Most of the population has access to informal work. The chances of a Venezuelan refugee occupying a formal vacancy are one-third compared to that of a Brazilian.</p> <p>- Xenophobia;</p> <p>- Lack of recognition of skills that need to be addressed;</p> <p>- Access to education;</p>

- Access to financial services.

- Access to housing.

He positively highlighted access to the social assistance system. He mentioned that the last update he received from the Ministry of Citizenship had around 82,000 refugees registered to receive Auxílio Brasil.

- The extreme poverty index of the Venezuelan refugee population is higher than Brazil's.

#### **OPERAÇÃO ACOLHIDA**

- Leave everything behind to go to a country that doesn't speak your language.

He highlighted that Venezuelans came to Brazil because of the structure and humanized support that Brazil offers.

- The other ministries lacked the political will to make the transition. Mainly from the Ministry of Justice, Ministry of Citizenship and Ministry of Health.

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Source: interviews with representatives of organizations organized by the author (2022).

The main challenges of refugees from the perspective of organizations are employability, aggravated by issues related to mastering the language and recognition of professional knowledge obtained in their countries of origin; xenophobia and racism, as well as the stigma that refugees will rob Brazilians of opportunities; the more extended stay of "minorities" in shelters, mainly of single mothers, LGBT people, people with disabilities - PCDs and the elderly; access to public services such as health, education and social assistance; and access to financial services.

The report given by the Caritas representative on the difficulties that refugees, especially Venezuelans, experienced during the Covid-19 pandemic is highlighted. According to the interviewee, the closing of land borders in Brazil during the pandemic, under the justification that it would be to control contamination, and keep air borders open, is a message from the current Brazilian Government about what type of migrant is welcome in the country. Still, according to the interviewee, the migratory flow of Venezuelans was not interrupted. However, people continued to enter irregularly but without access to documentation, which caused a series of challenges, including the inability to vaccinate against Covid-19.

Another point reported by the Caritas interviewee is about the challenges related to housing. It is reported that most refugee people in the State of Rio de Janeiro live far from places of possible job opportunities. In addition, there are reports of violence suffered by refugees living in territories dominated by the militia.

In the fifth question representatives of organizations are invited to analyze the levels of relationship with stakeholders according to the 3PR model proposed by Fontainha et al. (2017), presented in the Table 32.

Table 32 - Answer about the 3PR model (Fontainha et al., 2017)

Questions	<b>Considering the 3PR stakeholders model (FONTAINHA et al. 2017), which stakeholders does the organization maintain a relationship with and at what level?</b>
<b>Organization</b>	<b>Answers</b>
<b>Viva Rio</b>	It is recognized as a Local Help Network. He has a relationship with the military, especially the army. Relationship with the Government through the Ministry of Justice. Legislative and Regulatory, there is a median relationship concerning sports. With the private initiative, he received Seed Money. There is an average relationship with the media. Direct supplier, during the earthquake in Haiti, container services were contracted. It receives donations for the institution and distributes them to internal projects and partners.
<b>Cáritas</b>	Relationship with all those listed in the 3PR model. It criticizes the interiorization model in force in the country, as it has already identified 3 cases of work analogous to slavery. It has a relationship with donors. The international support network has support from a German NGO and support from IOM and UNHCR. It is reducing relations with the military due to the closure of the shelter for women, trans women, children and LGBTs. Total relationship with the Government and its three entities. Legislative and regulatory, yes, including collaborating with complementary laws. The private sector offers donations and job openings. It has a relationship with the media and highlights the potential for good or bad. Local support networks highlighted mutual support. Average relationship with direct suppliers.
<b>Toti Diversidade</b>	Identifies itself as a local help network. There is a little donation by Benfeitoria and by former students by choice of Toti. Considers the participation of the media to be very punctual, with little interaction (ALPA Magazine and DRAFT). It has no relationship with a direct, legislative or regulatory supplier. Low relationship with the Government. A strong relationship with the private sector, as companies hire them to provide trained professionals. It cites the US agencies USID and PRM, but they do not receive funds directly.
<b>Secretaria Estadual de Assistência Social e Direitos Humanos do Estado do Rio de Janeiro</b>	It identifies itself as Government. The least intense relationship is with the military. It has been more intense with Operation Acolhida before. (How do you see the Acolhida Operation? Do you see strengths and

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weaknesses. The pandemic has been safe. It should be improved concerning where people go, regarding the conditions of the establishment, especially with employment. One interviewee considers it a very good project. Another pointed out that it needs to improve the dialogue with the states and municipalities because sometimes it seems that it only serves to transport people. Better understand how to internalize people. And there is the issue of human rights and many complaints from the military that they abused women. There is a need to better train the people who serve the refugee public. About the international aid network, they have good contact.

Donors: none;

Local help network: it has contacts with some NGOs;

Media: non-existent relationship;

Direct suppliers: nothing;

Private sector: no; The state committee has no private representatives other than NGOs;

Legislative and regulatory: it has not yet made any proposal for a resolution that has to be voted on by ALERJ or delivered to the Governor...

Beneficiary: communication/assistance is done via institutions that act directly or when a refugee seeks the undersecretary.

#### **Cruz Vermelha Brasileira**

The Red Cross (CV) positions itself as an international aid network.

Donor: "it is the main arm. CV is 70% of donations". It is with the donations that the aid will be made.

Local networks: maintain relationships. Another interviewee mentioned that international and national networks would be the main interlocutors.

Media: I would like the organization's work to be featured more. The help part does not appear. There are the media of disaster (suffering), which is what sells.

Government: are closer to the Federal Government. The organization has a representative at the congress and an office in Brasilia (he did not provide details). Regarding the state and municipal governments, it maintains a relationship with some municipal secretariats, but it is not a two-way street.

Private sector: enter the donation section.

Direct suppliers: unrelated.

Military: also not related.

Beneficiaries: perform direct service.

#### **Comitê Nacional para Refugiados – CONARE**

We are Government.

International aid networks: we are very close and maintain a complementary relationship with such networks. They are partners.

Beneficiaries: direct relationship. It's at the centre of the action.

Local networks: civil Society: a lot of relationships, very

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close...

Military: more sporadic. There is no everyday relationship. It works with the Acolhida Operation at the ministerial level, not as a direct action of the committee's coordination.

Legislative/regulatory: it is also sporadic due to some guidelines that are very relevant to the work of the committee. Part of our work is also regulatory. Among the attributions of CONARE is the regulation of refugee law.

Private sector: it is very little. Eventually, you may learn about companies that employ refugees, but the relationship is not direct.

Direct supplier: none.

Media: related to publicizing what the committee does. It usually happens more on commemorative dates. There are the ministry's internal media.

Donor: none.

#### **Mawon**

Media: Currently, it does not serve the media or the press as they edit the interviews to stay in the "chororô";  
Civil Society: the Brazilian people are our biggest supporters;

Donor: we received donations of food baskets during the pandemic;

International Network: UN support; Military: has nothing to do with the subject.

The military is to make war. How do you see Operation Welcome? It's politics. It was a response by Venezuela to what Trump asked for; Where is the Operation today? Where are you rolling? Using thematics for policy to capitalize. Facing the Maduro government. Nearly 80 per cent have returned;

Government: relationship of respect. A strong State means fewer NGOs. The relationship is one of insisting that the Government take responsibility;

Legislative/regulatory: I am coordinating with left-wing parliamentarians (councillors) to have a committee for migrants. Lack of movements to give voice to migrants;

Private sector: It has been related to small companies, and we are also approaching large companies. The private sector is still suspicious. He doesn't want the inspectors to knock on their door because they are hiring migrants. There's no way we have to maintain a good relationship because of employability;

Direct supplier: There are not so many suppliers. Does not work with the material. They are Brazilian professionals (lawyers, HR, language teachers);

Beneficiaries: Family relationship. Very close. Since 2017, they have served 5 to 6 thousand people to regularize their migratory situation. Portuguese language course classes with 90 students each edition. Employability. When talking about numbers, nobody wants to open spreadsheets. I dream of creating a map of where the migrants are in the city.

**Refúgio 343**

It identifies itself as a local help network with the intention of internationalization. Close relationship with donors with social media actions aimed at this audience. It has a partnership with UNICEF and IOM. He has a positive relationship with the military. Partnerships with ministries (Ministry of Citizenship). Partnerships with companies for job referrals. It has nothing to do with the legislature. Hire external audit services. The relationship with the media is sporadic. They interact with beneficiaries in person at the sorting station in Roraima.

**Agência da ONU para Refugiados – ACNUR**

UNHCR has strong links with donors, the Government and the regulatory legislature. He suggested including the judiciary system in the scheme, such as the public defenders of the union and states and the public ministry. It has a strong link with the private sector. He highlighted the importance of approaching the media, mainly seeking to bring other meanings to how refugees are portrayed. Many partnerships with a local support network, including academia. It has a link with the military, with training and acting in the Acolhida Operation. They have suppliers, as they make many donations to organizations. He mentioned a partnership with the social bank.

**OPERAÇÃO ACOLHIDA**

The military is very present in the administration of the Operation in terms of support, infrastructure and logistics. The international humanitarian aid network, mainly IOM and UNHCR, contribute knowledge about humanitarian aid. He highlighted that the military is not prepared for humanitarian aid. On the contrary, they are prepared for conflict, which may cause international displacement. There was an attempt to get a donation, but today there is no such relationship. Local help network In Boa Vista, there are about 120 institutions, especially religious ones, but the links are more substantial with the Government and not with the military. Little relationship with the media, he highlighted the little interest in communicating the actions of the Acolhida Operation for not understanding that it is a State operation and not a government one. Service providers such as security and others are hired. The private sector works by offering job vacancies, and there are strong non-profit partnerships. He highlighted that the private sector is still very shy. As for the legislature, everything is based on decrees and laws. They receive many questions from parliamentarians.

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Source: interviews with representatives of organizations organized by the author (2022).

Viva Rio, Cáritas, Toti Diversidade, Mawon and Refúgio 343 identify themselves as a local help network and have a direct and intense relationship with people in the process of refuge. Viva Rio also highlights the relationship with the

military, especially during operations in Haiti. Cáritas reports a relationship with all the stakeholders in the model, but it has been reducing contact with the military. Toti Diversidade, unlike other organizations, has little relationship with donors and no relationship with direct suppliers but has an intense relationship with the private sector.

CONARE and SEASDH identify themselves as Government, the first inter-ministerial and the second at the state level. The attribution of CONARE in the regulation of the Refuge Law (BRASIL, 1997) stands out. UNHCR, on the other hand, describes its strong link with donors and suggests the inclusion of the Judiciary in the 3PR model, as they have a close relationship with the Public Defender of the Union and the States, in addition to the Public Ministry. They also emphasize the importance of approaching the media, seeking to change the way refugees are portrayed.

The Mawon representative interviewee reports not receiving the media because of the distortions in how refugees are portrayed, constantly as "poor people". He states that the military should not act on these issues, as they are trained for war. In the same sense, the representative of the Acolhida Operation points out that "the military is not prepared for humanitarian aid. They are prepared for the conflict". However, he says that the Brazilian Armed Forces can quickly set up an emergency infrastructure to respond to disasters in any part of the Brazilian territory.

The sixth question is about mutual collaboration between organizations, and the summaries of responses are presented in Table 33.

Table 33 - Response to mutual collaboration between organizations

Questions	Is there currently any kind of mutual collaboration between your organization and other humanitarian organizations?
<b>Organization</b>	<b>Answers</b>
<b>Viva Rio</b>	Collaborate with the Federal Police. There is a relationship with the UN through UNHCR and IOM. There is a collaboration with the Military Police of the State of Rio de Janeiro. Share the funds raised with other organizations.
<b>Cáritas</b>	He cited REDEMIR, where the organization participates, as an example of a network action that promotes collaboration between organizations.
<b>Toti Diversidade</b>	It collaborates with Cáritas, Instituto Venezuela, Abraço Cultural. ADOS and Migraflif.
<b>Secretaria Estadual de Assistência Social e Direitos Humanos do</b>	The only connection with the Federal Government is through CONARE and humanitarian institutions.

<b>Estado do Rio de Janeiro</b>	
<b>Cruz Vermelha Brasileira</b>	There is a network of institutions that support the refugee population, and CV activates such organizations based on the specific demands of the refugees that are assisted by it. It also serves refugees referred by an institution in the network to meet some demand.
<b>Comitê Nacional para Refugiados – CONARE</b>	Answered in the previous question.
<b>Mawon</b>	He already knows how to "swing" and which partnerships are true and false. In Brazil, the Church is a power. A pastor asked a commander to send migrants to work on a project at his Church and earn R\$100 a week. He worked until he found jobs for everyone and got them out of this situation, even though the military threatened him. An NGO that works with homeless people sends us migrants in this situation...
<b>Refúgio 343</b>	He mentioned that when they receive demands from employers for specific professionals, they share them with other institutions.
<b>Agência da ONU para Refugiados – ACNUR</b>	Did not answer.
<b>OPERAÇÃO ACOLHIDA</b>	- Collaboration with international organizations, IOM and UNHCR. Partnerships with organizations that work with children, food, health and others. He highlighted that the Acolhida Operation would not be what it is if it weren't for the partners.

Source: interviews with representatives of organizations organized by the author (2022).

Viva Rio reports collaboration experiences through sharing donations, whether financial or not. Caritas quotes Redemir on collaboration between organizations, especially those linked to the Catholic Church. The Mawon representative points out that not every partnership is positive and warns of the risks of subjecting refugees to work analogous to slavery. The representative of the Acolhida Operation points out that the Operation to respond to the humanitarian crisis of refugees in Brazil would not be the same if there was no collaboration between the organizations.

The seventh question is about possible support for entrepreneurial refugees, and the answers are summarized in Table 34.

Table 34 - Answer on support for enterprising refugee people

Questions	Do you provide any kind of support to entrepreneurial refugees? How does this happen?
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Organization	Answers
Viva Rio	Support refugees in sports.
Cáritas	Through the Trapolim Platform, where refugees register CVs and offer services.
Toti Diversidade	In the beginning, the organization already supported the participants of the Chega Junto fair. Today, it does not develop any action aimed at entrepreneurs.
Secretaria Estadual de Assistência Social e Direitos Humanos do Estado do Rio de Janeiro	Not applicable.
Cruz Vermelha Brasileira	Within the scope of CV, there was still no specific demand related to entrepreneurship. CV has received demands related to the naturalization process. If naturalized, the refugee would have more facilities for the regularization of an enterprise. This would be a form of indirect relationship with the issue of entrepreneurship.
Comitê Nacional para Refugiados – CONARE	Not applicable.
Mawon	The institution supports refugee people through advice/education, with two training tracks: one focused on employability and the other on entrepreneurship (the most significant challenge). During training, guidance is provided on issues of regularization, CNPJ and others. This action aims to help refugees understand the reality of entrepreneurs and generate income. The organization has the support of other institutions, such as SEBRAE, for example, to carry out this type of training. They offer seed capital at the end. It should be noted that this work focuses not only on refugees who have already undertaken in their countries of origin or in Brazil but also on those who wish to undertake. The interviewee highlighted some opportunities in the cultural sector.
Refúgio 343	He cited education actions to encourage entrepreneurship, such as training for some.
Agência da ONU para Refugiados – ACNUR	Entrepreneurial refugee platform, with around 102 entrepreneurs
OPERAÇÃO ACOLHIDA	<ul style="list-style-type: none"> <li>- The profile of the Venezuelan varied too much. After realizing the crisis, he highlighted that several entrepreneurs in Venezuela left the country and did not necessarily go through the welcomed Operation.</li> <li>- In the Operation received, entrepreneurship was not evident, as people did not necessarily go through the</li> </ul>

Source: interviews with representatives of organizations organized by the author (2022).

About support for enterprising refugees, the actions of Cáritas stand out through the Trampolim Platform (CÁRITAS, 2022), which assists refugees in their search for jobs and the provision of services. UNHCR, through the Refugiados Empreendedores (UNHCR, 2022) platform, aims to give visibility to about 100 initiatives of refugee people who undertake in Brazil. Toti Diversidade highlights actions to support the members of the Chega Junto Fair at the beginning of its activities. Refúgio 343 cited specific training actions for entrepreneurship.

The eighth question is about forced international displacement motivated by disasters, and the summary of the answers is presented in Table 35.

Table 35 - Responses on forced international displacement motivated by disasters

Questions	<b>Are there people in the refugee population they serve who have displaced themselves due to some type of disaster? Could you provide detail?</b>
<b>Organization</b>	<b>Answers</b>
<b>Viva Rio</b>	The organization worked with people from countries that suffered some type of disaster, especially "natural disasters", especially with Haitians who moved internationally after the earthquake in 2010.
<b>Cáritas</b>	He emphasized the case of the Haitians. And he signalled that the opening to discuss a possible change in international norms about the definition of refugee status could mean setbacks, given the current context of global political conservatism.
<b>Toti Diversidade</b>	There are no reports.
<b>Secretaria Estadual de Assistência Social e Direitos Humanos do Estado do Rio de Janeiro</b>	They believe that the legislation should consider migrants due to disaster situations as refugees.
<b>Cruz Vermelha Brasileira</b>	They see many difficulties in this process of recognition and reception.
<b>Comitê Nacional para Refugiados – CONARE</b>	There is no provision in the refugee law for the inclusion of people displaced by disasters. In this situation, the eligibility interview is used to analyze the concrete case based on the Cartagena element (Declaration of Cartagena, to which Brazil is a signatory).
<b>Mawon</b>	The case of Haiti is exceptional. The issue of natural

catastrophes is already known. In the US, when there is a disaster, compensation is immediate. Migration is a reality in a poor country where resources are lacking.

**Refúgio 343**

He does not recall reports of displacement due to disasters. They serve mainly Venezuelans, with an intense flow of requests for documentation.

**Agência da ONU para Refugiados – ACNUR**

Did not answer

**OPERAÇÃO ACOLHIDA**

It broadly understands the disaster, and many Venezuelan refugees were displaced due to hunger, making it difficult to characterize it as a disaster because it is slow and sometimes cyclical. There is a dispute between UNHCR and IOM regarding the understanding of refuge or migration and the disaster influences this classification.

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Source: interviews with representatives of organizations organized by the author (2022).

On forced international displacement caused by disasters, Viva Rio, Cáritas and Mawon cite the case of the earthquake that happened in Haiti in 2010 and caused an intense migratory flow. The Caritas representative signalled an eventual openness to change international norms about refuge could mean setbacks, considering the wave of world political conservatism. The Mawon representative says that international displacement caused by disasters is a reality in poor countries and gives the example of the United States, where there is quick repair after a disaster.

The response given by the CONARE representative stands out, which indicates that the Refuge Law does not provide for the recognition of the disaster as a reason for recognizing the refugee status. However, some cases fall under the condition of serious and widespread violations of human rights, being analyzed on a case-by-case basis. In this sense, the representative of Operation Acolhida says that the classification is complete and gives the example of part of the Venezuelan population that moves internationally due to hunger, which is a phenomenon of slow onset and sometimes cyclical.

The ninth question is about the impact of Covid-19 on organizations, and the summary of responses is presented in Table 36.

Table 36 - Responses on the impact of the Covid-19 Pandemic on humanitarian organizations

Questions	What were the impacts of the covid-19 pandemic on the activities carried out by the institution?
<b>Organization</b>	<b>Answers</b>
<b>Viva Rio</b>	The pandemic has affected the project considerably. Before, all services were performed physically; today, actions take place in a hybrid way, online and in person. It has worked reasonably well.
<b>Cáritas</b>	Fight to survive. Main activities were stopped, such as cultural activities. Efforts were directed towards getting food and rent from the people served. Many users who made their living from informal work could not carry out their activities, and many who worked in the tourist sector, such as hotels and restaurants, were dismissed. He highlighted the action to close land borders and interrupt the asylum application process. Refugees continued to enter, but without regularizing the issue of documentation, even preventing them from being able to get a vaccine. On the other hand, air borders remained open.
<b>Toti Diversidade</b>	Challenges: create a new (online) course, motivate people to participate and engage, and help participants create an environment conducive to studying.
<b>Secretaria Estadual de Assistência Social e Direitos Humanos do Estado do Rio de Janeiro</b>	It prevented locomotion and field contact with institutions and beneficiaries.
<b>Cruz Vermelha Brasileira</b>	Many projects had to be postponed, even though the service, considered an emergency, was never completely paralyzed.
<b>Comitê Nacional para Refugiados – CONARE</b>	Regarding the eligibility interviews, the Brasilia office already carried them out remotely, and this has been expanded. The practice of archiving processes in case the applicant's absence was suspended. The hardest part is that in a face-to-face interview, you have broader aspects of language, including body language, and this was lost a bit with remote interviews. The vulnerability factors of the public served were amplified with the pandemic. There is much to recover in terms of economic and social aspects.
<b>Mawon</b>	Personally depends on the culture to earn money. He spent almost three years without working. It was very hard, very strong. Most migrant entrepreneurs, if they don't work with culture, work with food or are street vendors. The pandemic has greatly affected our audience. Many people lost their homes because they could not pay rent. There were a lot of difficulties. Today

he's already getting back on his feet. He had the Francophone week, an event at MAR, but it's still slow... He's returning to work as a producer but without equipment. The money coming in is to pay the bills.

**Refúgio 343**

He reported that he has been at the institution since October 2019. The reception process has decreased. They campaigned to encourage the continuity of shelter during the pandemic.

**Agência da ONU para Refugiados – ACNUR**

**OPERAÇÃO ACOLHIDA**

It was an operation within another operation. It was the first time I saw a decision that could save lives due to the transport of respirators. A large hospital was built to serve more than a thousand people. Even with the border closed, people continued to enter Brazil. Some people arrived sick. There was a big logistical challenge. There were military deaths. However, there are few records of cases of covid-19 in shelters. They managed to make the necessary isolations. There was a lot of dedication from the people who were working on Operation covid-19.

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Source: interviews with representatives of organizations organized by the author (2022).

All organizations report being affected by the Covid-19 Pandemic, either with the interruption, reduction of actions or even with the redirection of efforts. The Caritas representative reports prioritizing access mainly to food and housing. It also points to the increase in unemployment among refugee people, especially in the tourism sector and restaurants that usually employ refugee people. In addition, it reinforces that even with the closure of land borders, many Venezuelans continued to enter, but they were unable to enter the documentation, and many were unable to take the vaccine, which violates the agreements to which Brazil is a signatory.

The CONARE representative indicates that the interviews for eligibility for refugee status have started to take place remotely. It also reports the perception of increased vulnerabilities of refugees.

The Mawon representative reports personal impact as he works in the cultural sector. He says that many migrant people who undertake live from informal work, especially with food, are being heavily impacted by the Covid-19 Pandemic.

We highlight the response of the representative of the Acolhida Operation, who talks about a great logistical challenge and the importance of the role of the Armed Forces in the transport of respirators, for the construction of an emergency hospital, with the capacity to care for a thousand people in Boa Vista in the State of Roraima.

The tenth question is about the communication channels used by the organization, and the summary of the answers is presented in Table 37.

Table 37 - Answer on how the communication channels used by organizations

Questions	<b>How is the technology used in contact with other institutions and the public you serve? What channels do you use today?</b>
<b>Organization</b> <b>Viva Rio</b>	<b>Answers</b> It basically uses the institutional website and WhatsApp. Almost do not use digital social networks.
<b>Cáritas</b>	WhatsApp groups, which was the primary tool used during the pandemic.
<b>Toti Diversidade</b>	Use of Instagram, Facebook and email in assisting refugees. And email, WhatsApp and LinkedIn for communication with organizations.
<b>Secretaria Estadual de Assistência Social e Direitos Humanos do Estado do Rio de Janeiro</b>	There are no official digital social networks. The coordinator's personal network is used for dissemination and contacts.
<b>Cruz Vermelha Brasileira</b>	Services are mainly carried out face-to-face. They use booklets, folders and banners. In addition, there is the institutional website as a means of dissemination. WhatsApp is also used as a means of communication.
<b>Comitê Nacional para Refugiados – CONARE</b>	It does not have digital social media. The whole digital part is the responsibility of the Ministry of Justice. With the migration to the govt. Br, the language became more accessible, and we are still finishing validating some tabs. They have the support of the Ministry's Communication sector.
<b>Mawon</b>	He uses Zoom and Telegrams a lot, despite using WhatsApp and Facebook more (people in a more vulnerable situation get in touch with him). These tools make it easy. Migrants post photos on social media. This is a way of showing families that they are doing well. It has a partnership with Google, which gives visibility to the organization. Concerning communication, we still have difficulty, mainly because we do not have specific resources to encourage it.
<b>Refúgio 343</b>	Instagram with weekly posts. He cited an example of an app for encounters between displaced people from the Ukrainian War with potential hosts. He also commented that an international platform promotes meetings called

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	“Needs guest”.
<b>Agência da ONU para Refugiados – ACNUR</b>	Did not answer.
<b>OPERAÇÃO ACOLHIDA</b>	He considers that more efforts are still needed to communicate the Operation externally. Today, the Acolhida Operation has an Instagram and an official page, but there is still a lack of effort to give it more visibility.

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Source: interviews with representatives of organizations organized by the author (2022).

Government representatives, CONARE and SEASDH, do not have digital social networks and the main communication channels are official. The welcomed Operation has official communication channels and a profile on social networks, especially Instagram, but they still consider them insufficient to give visibility to their actions. The other representatives highlighted Whatsapp, Facebook and Instagram groups as important tools to facilitate communication with users and partners, especially during the Covid-19 pandemic. Videoconferencing tools are also identified as important solutions for the development of actions. The representative of Refúgio 343 comments on the existence of a platform that connects refugees from the Ukrainian War with people from other countries who can offer shelter.

#### 4.1.5 Discussion of the results of interviews with refugees and representatives of organizations.

This subsection will analyze research findings based on the theoretical framework, mainly the Systematic Literature Review presented in Chapter 3.

Thus, the main challenges faced by refugees are language barriers, cultural adaptability, access to employment, and access to public services. The research identifies organizations that adequately understand the demands and priorities of their audiences. As for the language barrier, for IOM (2019), language knowledge and other demographic and personal characteristics, such as age, education level, gender, and support networks, directly influence the inclusion process.

In this way, the research results reaffirmed the diagnosis made by IOM (2019), who pointed out that language is fundamental for refugees to access public services and increase the likelihood of getting a job. On the other hand, the lack of language command can significantly increase refugees' vulnerabilities (IOM, 2019). Teye and

Yebleh (2015) also point out that socioeconomic integration for different ethnic-linguistic groups is more complex.

Werker (2007), in his work on the economy in refugee camps, says that socioeconomic inclusion and the improvement of the quality of life of refugees do not depend only on the actions of humanitarian organizations but also on the policies of the host countries, especially in the extent to which the refugees are kept isolated from the host or non-host populations.

Staying longer in a refugee camp can generate stigma, create dependencies and even discourage people from working (EARLE, 2016). Among the data collected in the survey, there are reports of a more excellent permanence of the camps by single mothers, elderly people, PCDs and LGBTI+ people. This longer stay is caused by employers' preference for single men between 18 and 45. Earle (2016) also points out that for the social imagination, refugee people are associated with camps. However, many refugees are in urban areas and do not have access to the actions of humanitarian agencies.

Racism and xenophobia are also significant barriers to the integration process. Turner (2019) discusses the relationship between humanitarianism and race and studies the case of Zaatari, where Syrian refugees are seen as "entrepreneurial refugees" and approach the ideal of colonial whiteness, while refugees of African origin are portrayed as passive, poor and dependent on humanitarian aid. Therefore, the race is seen as a central factor in understanding how refugees are portrayed, and policies are constructed (TURNER, 2019).

The research also identifies that for refugees from the Democratic Republic of Congo, the main reasons for international displacement are political persecution and the search for a better quality of life, in addition to the context of war. It is noteworthy that some Congolese interviewees have been in Brazil for years and have started the naturalization process. As for respondents of Venezuelan origin, the main reason is the severe and widespread violation of human rights. Both groups received international protection through refuge in Brazil, but for Venezuelans, there is the possibility of applying for a residence visa. In the literature, Lister (2013) rejects movements that broaden the definition of refugee to include all people who cannot meet their needs on their own and do not have support from their countries of origin. Such a rejection does not deny that other groups of people demand international protection but allows for adequate assistance to the groups defined by the Protocol of the 1967 United Nations Convention (LISTER, 2013).

At the beginning of the refugee reception process, financial or otherwise humanitarian aid is indispensable and can be provided by organizations or other



people in the host countries. For Teye and Yebleh (2015), many refugees arrive in host countries with virtually no economic capital and survive because of the social capital of networks of people, churches and NGOs. The results also contain reports that, after being established, some refugees in Brazil help family members in their countries of origin financially upon their arrival in Brazil. Such results also reinforce the findings of the research by Teye and Yebleh (2015), who argue that in the case of Liberians in Ghana, refugee people should be encouraged to form mutual support groups based on solidarity, which can significantly contribute to livelihoods.

Another challenge is the employability of refugees. There are many employment restrictions for refugees in host countries, and entrepreneurship is presented as an alternative (SKRAN and EASTON-CALABRIA, 2020).

However, it is necessary to be critical of the neoliberal processes of response to the humanitarian crisis that stimulate entrepreneurship in the refugee camps and try to make the subjects responsible for their futures and are often encouraged to accept precarious conditions in the camps in the name of humanitarian resilience (ILCAN and RYGIEL, 2015). For Ilcan and Rygiel (2015), the tendency of governance of refugee camps that encourage spaces that should be temporary to become permanent is disturbing. In this sense, a trend of the difficult mission of reconciling the humanitarian and economic agendas is increasingly perceived (LENNER and TURNER, 2019).

The entrepreneurial activities of many refugees are initiated to meet basic needs and eventually to supplement income, but they are still insufficient to guarantee their self-sufficiency. It should be noted that, even with undertakings, refugees continue to demand protection and assistance from the State, in addition to the support of non-governmental organizations. Therefore, resuming the concept of self-sufficiency must consider social, economic, legal and individual aspects, as presented by Skran and Easton-Calabria (2020). In contrast, De La Chaux and Haugh (2020) show that refugee people have their basic needs met by humanitarian aid in the case of Dadaab in Kenya. However, entrepreneurship is not focused only on survival but on recovering their economic capacity and expressing their individuality.

In the case of non-governmental humanitarian organizations, it is identified that the main challenge is funding. The main strategies are to carry out campaigns to mobilize donation resources from individuals and the private sector. Also noteworthy are fundraising actions through participation in public and private tenders and receiving support from international agencies such as IOM and UNHCR. In this sense, Gatrell (2019), in turn, points out that humanitarian aid has become a billionaire business and that the scenario of national and international cooperation, especially with governments and intergovernmental agencies, has become indispensable to make actions feasible.

However, many non-governmental organizations suffer the dilemma of having to contain a critical impulse to their funders' policies, which could compromise the viability and scale of their actions (GATRELL, 2019).

In this way, it is highlighted that the discussion about global public policy for financing actions in response to the humanitarian refugee crisis, in the study by Luecke and Schneiderheinze (2017) points out that wealthier countries should contribute more significantly to support actions in middle and low-income countries, which tend to receive a more significant number of refugees.

As for the relationship between forced international displacement and disasters, the UNHCR representative reports that the Brazilian legislation on refuge does not provide for coverage in case of displacement caused by disasters, but that in the interviews for eligibility, concrete facts are analyzed, mainly from the elements disposed of in the Cartagena Convention, to which Brazil is a signatory. Warner et al. (2010) point out that the Cartagena Convention also includes people who are forced to leave their countries due to events that seriously disturb public order, which would open space to accommodate people displaced by environmental factors. In contrast, Lister (2013) points out that discussing the definition of refugee in the political context of increasing conservatism may represent more setbacks than advances. Other forms of international protection should be considered for non-refugee groups.

Regarding the process of forced international displacement caused by disasters, six representatives of organizations point out that they have already assisted people in these conditions. The case of the displacement of Haitians due to an earthquake in 2010 is cited as an example. Still, according to the reports, some Haitians, upon arriving in Brazil, are regularized as holders of humanitarian visas. However, they also need support from humanitarian organizations and the government's international protection. The Mawon representative points out that forced displacement caused by disasters is a reality in poor countries and cites the example of rapid recovery after disasters in the United States of America, mainly due to the culture of securitization.

The context of the combination of two disasters, the refugee humanitarian crisis and the COVID-19 pandemic, caused a significant increase in people's vulnerabilities in the forced displacement process to Brazil. In the case of refugees from the Democratic Republic of Congo, there are many reports of unemployment, where refugees are the first to be fired. And in the case of Venezuelan refugees, the closing of Brazil's land borders stands out. It is worth noting that during the COVID-19 pandemic, air borders are kept open. Such circumstances caused significant negative impacts on Venezuelan refugees, as many continued to cross the border irregularly. However,

without starting the process of migratory regularization, they could not access public services, including vaccination against the SARS-COV-2 virus. In this sense, the research results are similar to the case pointed out by the work of Zanker and Moyo (2020), which points to evidence that the COVID-19 pandemic is being used as a justification for the instrumentalization of xenophobic policies. In a complementary way, Mavelli (2018) criticizes the neoliberal process of commodification of citizenship, where wealthy migrants can move smoothly across borders and the rules for humanitarian corridors for refugees are increasingly tightened. The researcher highlights that citizenship policies that should be based on reciprocity, solidarity and equality are rewritten in economic terms (MAVELLI, 2018).

Regarding the management of stakeholders in Humanitarian and Disaster Operations, interviews with representatives of organizations are analyzed based on the 3PR Model proposed by Fontainha et al. (2017). Most non-governmental organizations identify themselves as belonging to the local help network. UNHCR and CVB representatives identify themselves as an international aid network. In addition, there is the representation of the military, through the representative of the Acolhida Operation and of the Federal and State Governments, through the representations of CONARE and SEASDH.

All representatives of organizations report a strong relationship with beneficiaries and the government. However, NGOs report being closer to the Federal Government, and eventually, partnerships with state and municipal departments arise. In this sense, Earle (2016) points out that the global policy for responding to the humanitarian crisis needs to change. Most refugees and displaced people are in urban areas, with an increased risk of disasters. Thus, it is necessary to understand how populations affected by disasters are inserted in urban areas and how it is possible to exercise and enhance the role of municipal governments (EARLE, 2016).

Part of the local aid network and the international aid network interviewed report a strong link with donors, except for Toti Diversidade and Mawon, which report a weaker relationship. Donations come mainly from individuals, including businessmen, who are aware of the refugee humanitarian crisis, and also from legal entities. The relationship with the media and direct suppliers is considered average/weak. Some interviewees consider that the media can also reinforce negative stereotypes while representing a potential for mobilizing supporters for the refugee humanitarian crisis. The role of *Cáritas* as a representative of Civil Society at CONARE and the relationships with all the stakeholders present in the 3PR Model stand out. Also noteworthy is the suggestion by the UNHCR representative to include the stakeholder representing the Judiciary in the Model, considering the decisive role played by

representatives of the public ministry and public defenders in the humanitarian crisis here in Brazil.

Finally, the research results on the use of digital technologies are discussed. The main findings indicate that the refugee people interviewed and the organizations use digital technology to some degree to support the reception, protection and integration process. Reis et al. (2016) highlight the importance of digital social networks' importance in connecting universities and NGOs and supporting *crowdsourcing processes*. However, it is considered the approach of the work of Scott-Smith (2016) that criticizes the process of humanitarian innovation, especially those aligned with the interests of the market, which overvalue technology and the self-sufficiency of its users instead of promoting the strengthening of States to adequately carry out humanitarian principles.

#### **4.2 Interpretation**

This subsection is a result of data collected from interviews with refugees and representatives of organizations. At first, the primary evidence collected is represented on insight cards, as directed by Vianna et al. (2012). The results of this stage allow us to systematize the main challenges faced by refugees and organizations analyzed in the ideation stage, presented in subsection 4.3.

Initially, 12 insight cards are created, 7 for refugees and 5 for organization representatives. The cards are composed of a description of the challenge, the fact, the source of evidence and the questions elaborated on the challenge.

The first insight, presented in Figure 15, is related to the inclusion difficulties generated by language and cultural barriers identified from the results presented in Table 13.

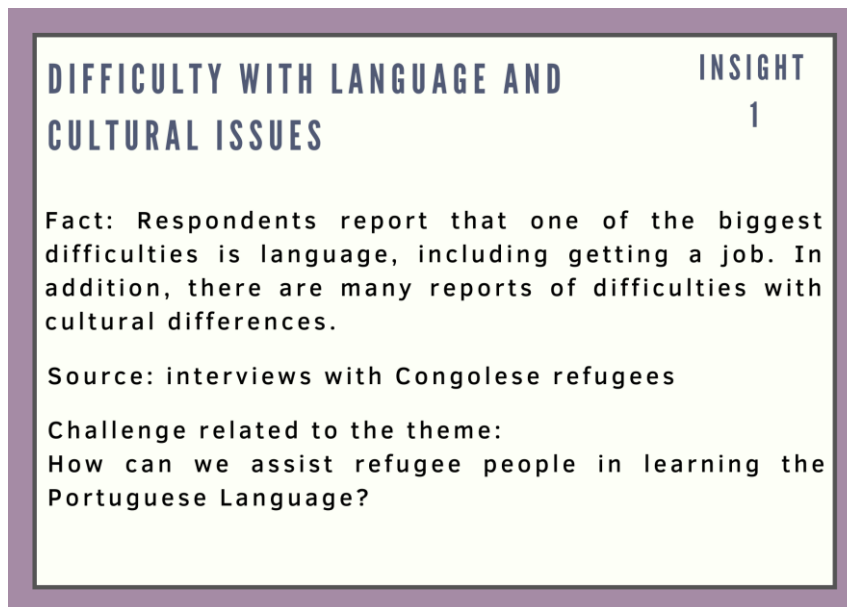


Figure 15- Insight card 1 from interviews with refugees.

Source: the author (2022).

In this way, the challenge that seeks ways to help refugee people learn the Portuguese language is defined. The second insight, presented in Figure 17, is related to the challenge of how we can facilitate the insertion of refugees in the labour market.



Figure 16- Insight card 2 from interviews with refugees.

Source: the author (2022).

The third insight, presented in Figure 17, is about how we can facilitate access to documents by refugees. This insight is obtained from the responses of refugees organized in Table 13 and representatives of organizations present in Table 29, who

point out that many refugees need support to formulate the justification for entering the asylum application process in Brazil.

**DIFFICULTIES IN GETTING THE DOCUMENTS**

**INSIGHT 3**

**Fact:** Part of the interviewees report difficulties in obtaining some documents and regularizing their migratory situation.

**Source:** interviews with Congolese and Venezuelan refugees

**Challenge related to the topic:**  
How can we make it easier for refugee people to access documents?

Figure 17- Insight card 3 from interviews with refugees.

Source: the author (2022).

The fourth insight, presented in Figure 18, is about how we can facilitate access to public services such as education and health in Brazil. This insight is obtained from the responses of the representatives of the organizations in Table 29 and also by refugee people who allege that upon arriving in Brazil, they do not understand well how the unified health system and the public educational networks work.

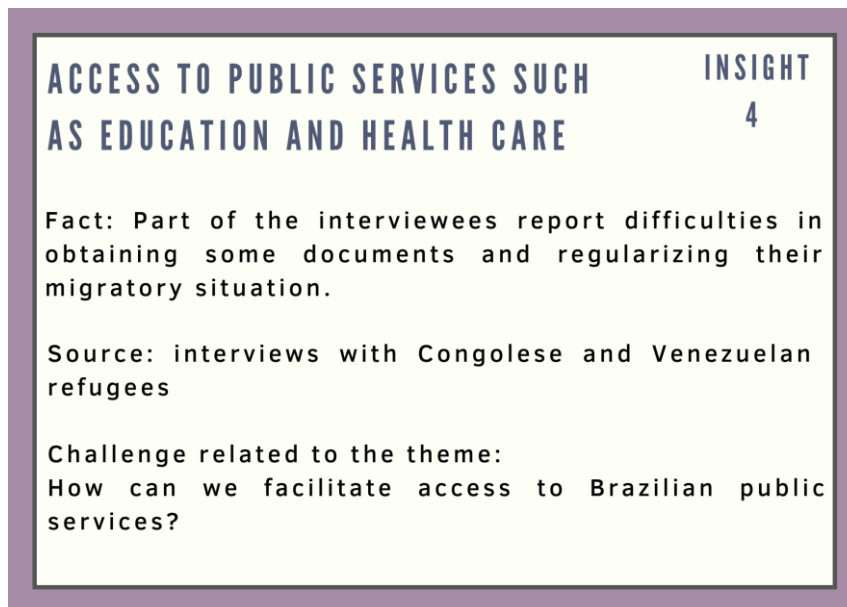


Figure 18- Insight card 4 from interviews with refugees.

Source: the author (2022).

The fifth insight, presented in Figure 19, is about how we can help newly arrived refugees to understand the territories and access housing better. This insight is obtained from the responses in Tables 16, 19, 21 and 33. It is worth highlighting the report by the Caritas representative that many refugees live in areas eventually dominated by parallel power, mainly the militias.

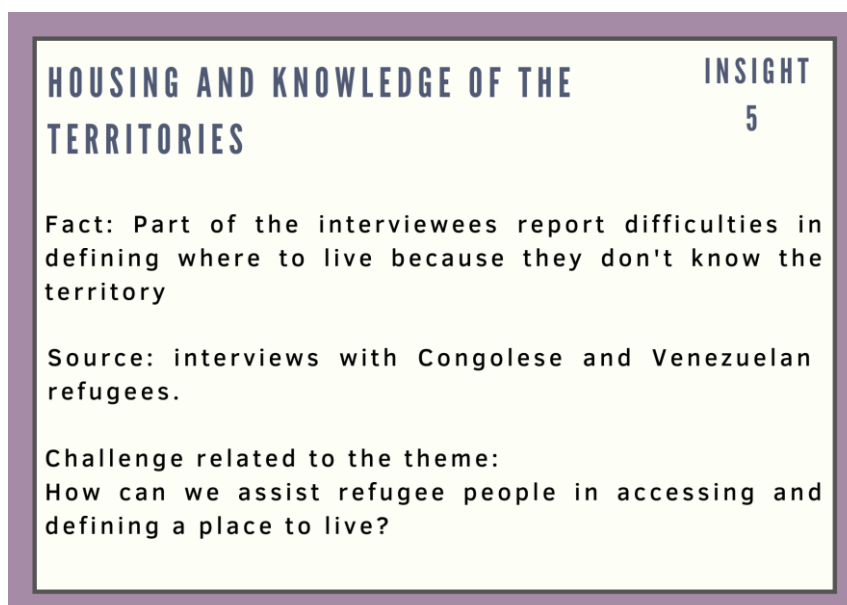


Figure 19- Insight card 5 from interviews with refugees.

Source: the author (2022).

The sixth insight, presented in Figure 20, is about how we can contribute to combatting racism and xenophobia suffered by refugees in Brazil. This insight is obtained from the responses in Tables 20 and 31. We highlight the report of a refugee from the Democratic Republic of Congo who came to Brazil as a child and tried to enter the financial market but points out that he was not approved in the selection processes due to racism and xenophobia, as shown in Table 16.

**XENOPHOBIA AND RACISM  
SUFFERED BY REFUGEES**

**INSIGHT  
6**

**Fact:** Interviewees report one of the biggest barriers to the process of reception, protection and integration are xenophobia and racism.

**Source:** interviews with Congolese refugees.

**Challenge related to the theme:**  
How can we contribute to combating xenophobia and racism?

Figure 20- Insight card 6 from interviews with refugees.

Source: the author (2022).

The seventh insight, shown in Figure 21, is about how we can help refugees, asylum seekers and other migrants to develop a mutual aid process. This insight is obtained from the responses in Table 17, 18 and 19, where there are several reports of receiving support from groups of people who were already established in Brazil and collaborated with the arrival of other members of the family and social groups, in addition to receiving support from humanitarian organizations.



**THE NEED FOR COLLABORATION  
AMONG REFUGEES**

**INSIGHT  
7**

**Fact:** The interviewee relates her support work to other refugees through referrals to services provided by humanitarian organizations, as well as with friends and family in the countries of origin

**Source:** interview by the author with Congolese and Venezuelan refugees

**Challenge related to the theme:**  
**How can we help refugees, refugee seekers and migrants to develop a mutual aid process?**

Figure 21- Insight card 7 from interviews with refugees.

Source: the author( 2022).

The eighth insight, shown in Figure 22, is about how we can make companies aware of the issue related to the refugee humanitarian crisis and finance humanitarian organizations. This insight is obtained from the responses in Tables 29 and 30. It is noteworthy that in more than one interview, reports are recorded about the need for financial resources to maintain and expand the activities of organizations. Among the main issues raised, the challenge of sensitizing the private sector to support, finance and sponsor the actions stands out.

<b>NEED FOR FINANCIAL RESOURCES TO MAINTAIN THE ACTIONS</b>	<b>INSIGHT 8</b>
<p><b>Fact:</b> According to reports from OH, even though there is a huge demand for the services offered, such as Portuguese and vocational courses, one of the biggest challenges is funding to maintain and improve the activities.</p>	
<p><b>Source:</b> humanitarian organization operating in Brazil (Rio de Janeiro) and Haiti (2021) and Humanitarian Organization linked to the religious institution (2021).</p>	
<p><b>Challenges related to the theme:</b></p> <ul style="list-style-type: none"> <li>• How can we get companies to engage with the refugee issue and want to fund humanitarian organizations and projects?</li> </ul>	

Figure 22- Insight card 8 of humanitarian organizations

Source: the author (2022).

The ninth insight, presented in Figure 23, is about how we can facilitate sharing donations between humanitarian organizations. This insight is obtained from the responses in Table 33. Reports of mutual collaboration, financial or otherwise, between government organizations, NGOs and the private sector stand out. The interviews indicate the sharing of donations in particular disaster situations, whether during the refugee humanitarian crisis, during the COVID-19 pandemic, or even in other associated disasters such as landslides and floods.

<b>DONATION SHARING</b>	<b>INSIGHT 9</b>
<p><b>Fact:</b> After the evaluation and receipt of donations from individuals and private persons, whether financial or material resources, they are shared with other organizations.</p>	
<p><b>Source:</b> humanitarian organization with operations in Brazil (Rio de Janeiro) and Haiti, 2021.</p>	
<p><b>Challenges related to the theme:</b></p> <ul style="list-style-type: none"> <li>• How can we promote donation sharing actions among humanitarian organizations?</li> </ul>	

Figure 23- Insight card 9 of humanitarian organizations

Source: the author (2022).

The tenth insight, presented in Figure 24, reports on the absence of a national platform that integrates agents who work in the reception, protection and integration of people in situations of forced international displacement. This insight is mainly obtained from the interview with Viva Rio representatives. In addition, the findings point to the need for greater transparency and curatorship in the actions of humanitarian organizations, whether financed with public funds or not.

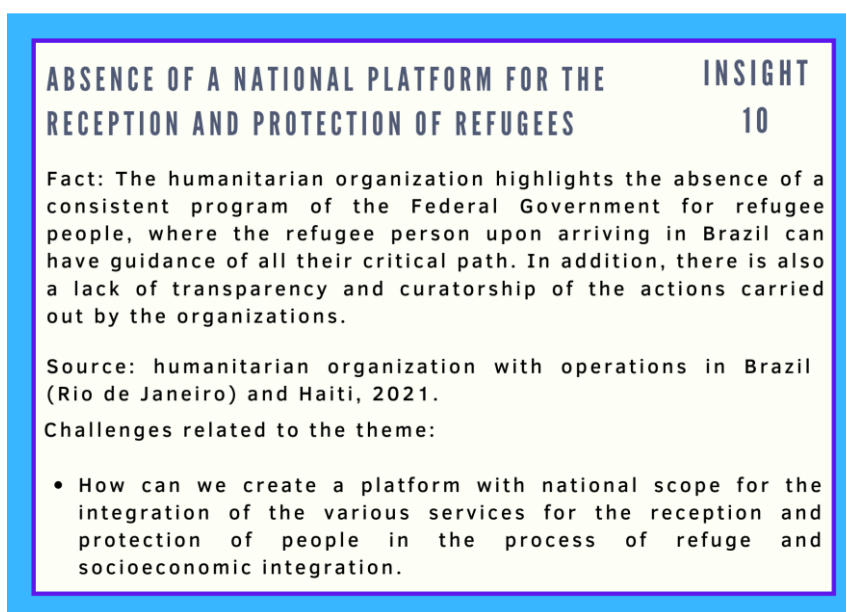


Figure 24- Insight card 10 of humanitarian organizations  
Source: the author (2022).

The eleventh insight, shown in Figure 25, is about how we can strengthen local integration support networks. This insight is obtained from the responses in Table 32. The reports of receiving support from local networks by the Caritas representative stand out, who describes that the local population often supports the reception of newly arrived refugees. Examples of support with food, clothing and furniture are cited. In this way, the importance of local networks to support the process of community integration is perceived.

**LOCAL INTEGRATION SUPPORT NETWORKS** **INSIGHT**  
**11**

**Fact:** The humanitarian organization highlights the importance of local networks for the integration process and has received several reports of people who arrived in communities without basic resources such as food, furniture and clothing. In these cases, they usually rely on the support of the local community, especially neighbors.

**Source:** Humanitarian organization linked to religious institution (2021)

**Challenges related to the theme:**

- How can we support and strengthen local integration support networks?

Figure 25 -Insight card 11 from humanitarian organizations

Source: the author (2022).

The twelfth insight, presented in Figure 26, is about how we can promote greater accessibility to the reception process in Brazil. This insight is obtained from the answers shown in Table 28. Among the various issues discussed accessibility, the need to expand the translation languages of the asylum application form present in the National Committee for Refugees System - SISCONARE stands out. Today, the Ministry of Justice makes it available only in Portuguese, English, French and Spanish, as provided by CONARE (2022). This finding may represent a barrier to properly completing the document, which is the main instrument for assessing refugee status in Brazil.

**THE NEED TO MAKE REFUGEE CLAIMS ACCESSIBLE**

**INSIGHT 12**

**Fact:** The humanitarian organization points out that currently the refugee request is made through a Ministry of Justice (MJ) form exclusively in Portuguese, which makes accessibility difficult for refugees.

**Source:** Humanitarian organization linked to religious institution (2021)

**Challenges related to the theme:**

- How can we promote accessibility for the refugee application process?

Figure 26- Insight card 12 of humanitarian organizations

Source: the author (2022).

In this way, the insight cards are organized according to their similarities, which Viana et al. (2012) define as an affinities diagram, shown in Figure 27. The insight cards are organized into four groups, namely: (i) integration of refugees; ( ii ) combat xenophobia and racism; (iii) collaboration between refugees and organizations; and (iv) funding of humanitarian organizations.

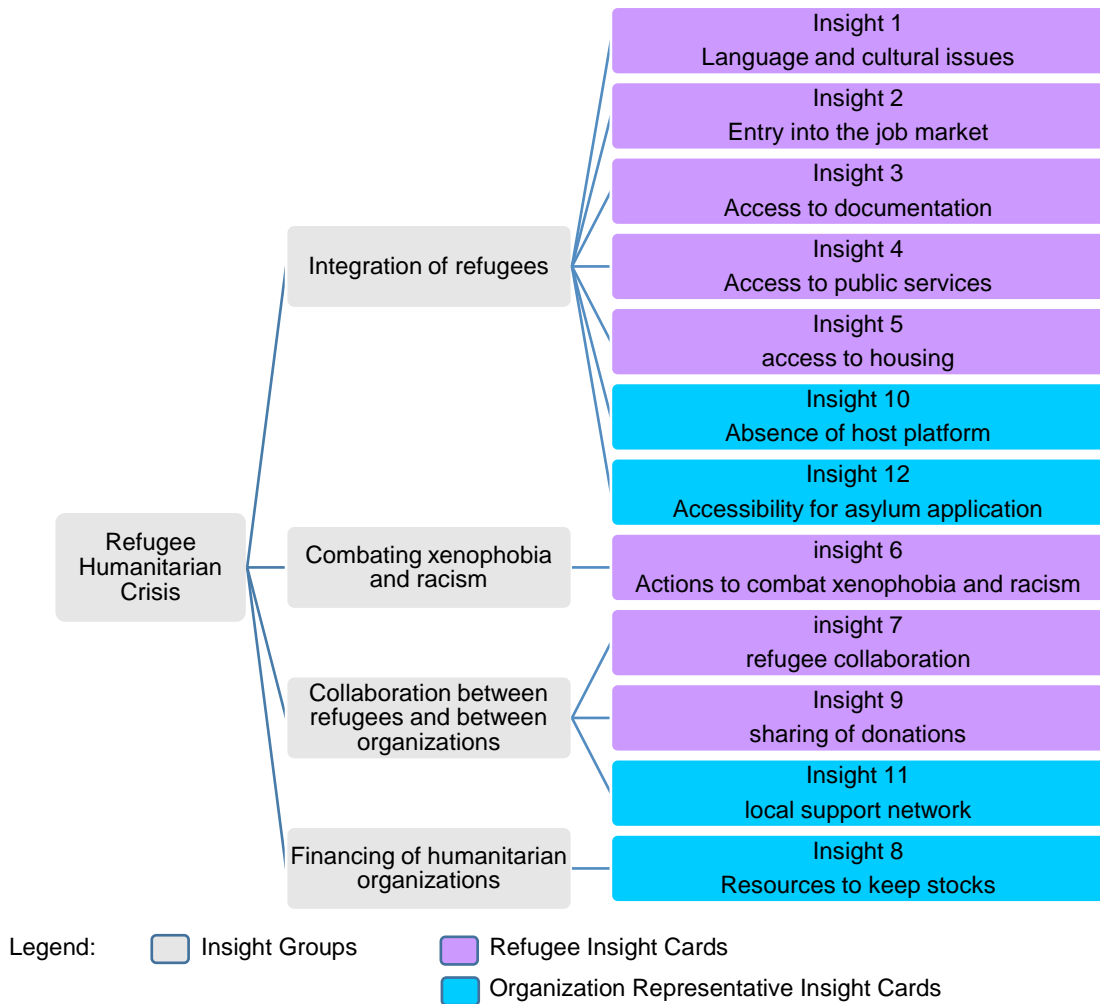


Figure 27- Insights cards affinity diagram

Source: the author (2022).

The groups of insights, along with their respective cards, are taken to the next step of the search.

### 4.3 Ideation

The ideation phase is carried out using four tools: brainstorming; the persona; the blueprint, as proposed by Vianna et al. (2012), and the canvas, developed by Osterwalder and Pigneur (2011). This stage is carried out in two phases, the first between July and December 2020, within the scope of the Service Design discipline offered by the Graduate Program in Production Engineering at the Federal University of Rio de Janeiro, where the idea of a collaborative service arises. A service prototype is carried out, and her results are discussed in the work Leite et al. (2022). The second

takes place between September 2021 and June 2022, where the ideation stage is reviewed as the business model itself.

It is worth mentioning that in May 2021, the research elaborates on a project submitted and approved to Public Notice No. 001 of Special Projects of the UFRJ Technological Park. Therefore, this research phase collaborated with professionals and undergraduate and graduate students from UFRJ. The project team comprises professionals from the fields of Industrial Design, Social Communication, Law, Software Engineering and Production Engineering, ensuring interdisciplinarity in the ideation process.

The brainstorming dynamics use the systematized findings in subsection 4.2 to propose solutions. The generating question of the ideation process is highlighted as follows:

- How can we promote the socioeconomic insertion of refugees, and how can we enhance the collaboration process between refugees and *stakeholders* in this context of facing two disasters simultaneously?

From the observation of social innovation processes, as described by Jégou and Manzini (2008) and the analysis of the evidence collected, it is proposed the creation of a virtual platform for integration and community collaboration among refugees, which facilitates interpersonal relationships as much as possible, enabling the construction of a social learning process, as described by Cipolla and Manzini (2009). It also seeks to facilitate access to information about the reception, public services or even humanitarian aid promoted by non-governmental organizations.

The solution is characterized as a business model of a multilateral platform, where there is more than one customer/user segment, but which are interdependent, that is, they have common interests.

Based on a tradition of research on Service Design, in particular collaborative services, defined by Jégou and Manzini (2008), the Rede Refugia was idealized, which aims to facilitate the process of mutual collaboration between refugee people and between organizations that act or wish to act in response to the refugee humanitarian crisis disaster (LEITE et al. 2021).

The elaboration of the business model begins in February 2022, after the completion of the interview process with representatives of organizations. Three team meetings are held to create the Rede Refugia business model. In the first meeting, the project team discussed which user segments the service would cover. During the meeting, two groups are defined: (i) refugees, asylum seekers, humanitarian visa holders and migrants; (ii) people and organizations that act or wish to act in the humanitarian crisis of refugees.

This scope is defined considering that the collaborative service could be unrestricted to more than just people who already have refugee status. It considered that other subjects also demand services, such as, for example, people who are still awaiting the analysis of their asylum application, stateless people (who do not have their nationality recognized by any country), people who have moved internationally due to war or disasters and are holders of a humanitarian visa, or even other migrants who identify themselves and want to collaborate with other people in the process of forced international displacement.

In addition, the user segments of other stakeholders are unified, defined as people and organizations that act or wish to act in the refugee humanitarian crisis. This group includes individuals and companies, local and international humanitarian organizations, private sector companies, government, military, media, suppliers and others.

In Figure 28, it is possible to visualize the business model of Rede Refugia. The use of colours helps the reader to visualize what is planned for each customer and partner segment. In this way, the colour pink is used to associate all definitions made centred on users who belong to the refugee group. The blue represents the definitions made for users, people and organizations that work or want to work in the humanitarian crisis. Finally, the colour green is used for private sector definitions, including any partnerships with development and marketing agencies and fundraising.



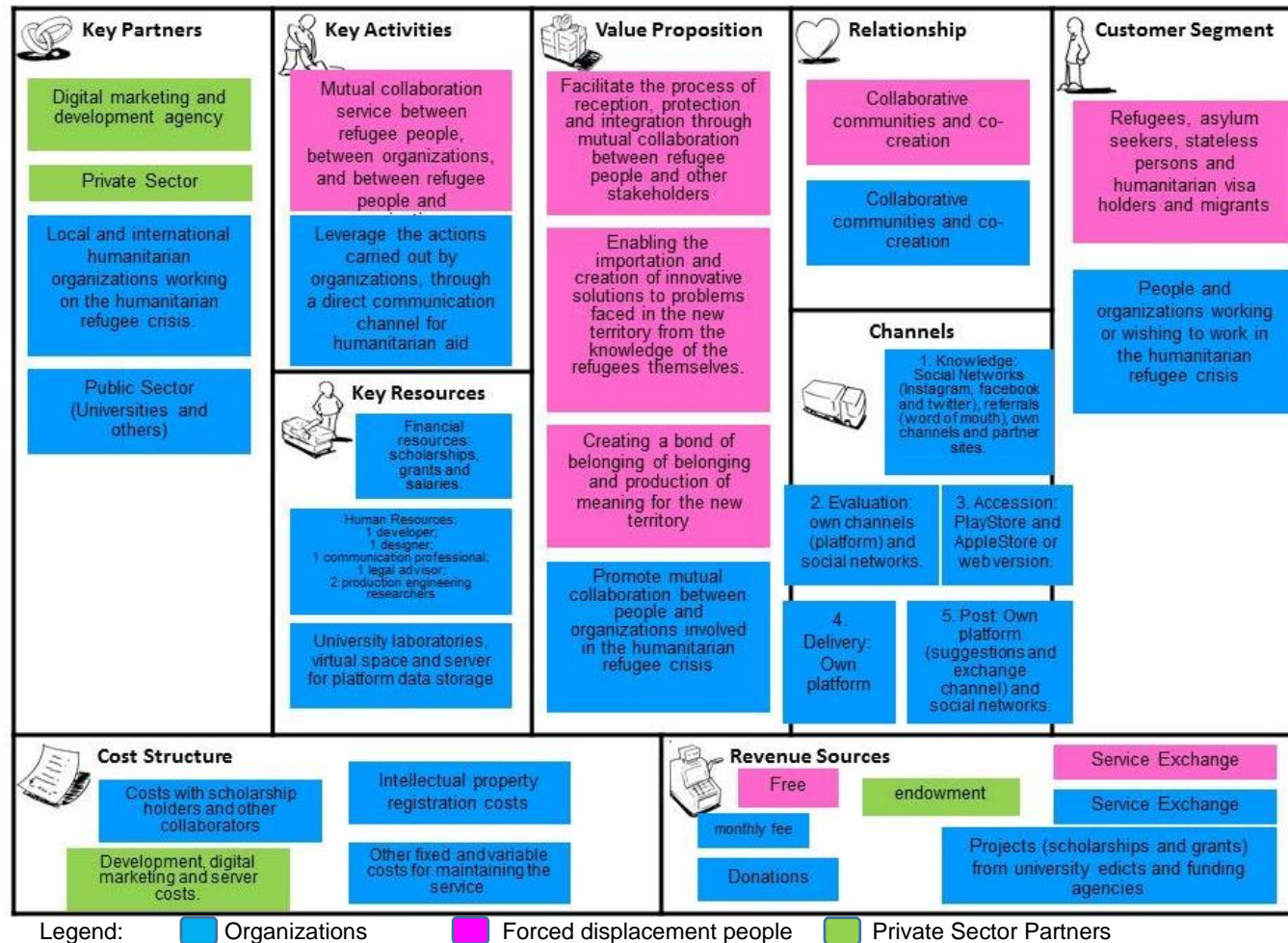


Figure 28– Rede Refugia Business Model  
Source: the author (2022).

In the second meeting, the project team re-discussed the platform's value proposition, which maintained its purpose of facilitating the process of reception, protection and integration of refugees and other stakeholders through mutual collaboration. In addition, it is noteworthy that with the integration of people in the process of refuge, there are many gains for the host country through the importation of knowledge and knowledge that significantly collaborate to create innovative solutions that alleviate the humanitarian crisis of refugees. Also noteworthy is the service's potential to promote the creation of bonds and meanings for the new territory through its socioeconomic integration.

Regarding the relationship with customers, the service focuses on creating a collaborative community where its users can exchange services and collaborate, enabling users to co-create the platform's solutions, whether suggesting support categories or even new services.

Regarding the channels, the Rede Refugia considers the following phases: (i) knowledge; (ii) evaluation; (iii) adhesion; (iv) delivery; and (v) post-service, described by Osterwalder and Pigneur (2011)

The service gives visibility and knowledge, and social networks, especially Instagram, Facebook and Twitter, are used. However, it is believed that word-of-mouth is a fundamental tool for attracting new users, as well as advertising carried out through partner portals that work with people in the process of refuge.

Next, it is defined that users can assess whether the service has functionality through our social networks and our platform. It is defined that the service is available in web and mobile versions on the Play Store and Apple Store platforms. After logging into the system, users access an opportunities registration module to include their demands or service offers, whether employment and income, food, or housing, among others. The platform promotes meetings through a list of georeferenced demands and offers. If there is interest, users can contact each other and agree on how to collaborate. After the collaboration, users can use the platform to give feedback and collaborate with the co-creation of the service.

Regarding revenue sources, the services are free for both groups of users, who can collaborate and exchange services in different ways. Rede Refugia intends to maintain itself through donations and *endowments*, raising funds through university projects, development agencies, and foundations linked to the private sector. The funds raised will be used to cover employee costs, intellectual property registration, development costs, digital marketing, and other fixed, variable and proportional costs necessary for maintaining the service.

The primary partnerships are defined at the third meeting of the business model development team. The partnerships with development agencies and digital marketing stand out, with humanitarian organizations that act in the humanitarian crisis of refugees, in addition to spheres of the public sector and eventually the private sector.

Finally, the primary resources required for the platform to function are listed:

- Financial resources: scholarships, grants and salaries;
- Human resources: 1 developer; 1 designer; 1 media professional; 1 legal advice; 2 production engineering researchers.
- Physical resources: university laboratories; virtual space and server for storing platform data.
- Intellectual resources: trademark registration and software.

The persona tool is used from the interviews and insights described by Vianna et al. (2012) to represent user segments visually. It is a tool that allows you to think of users as real people with real challenges, different from the description of the customer segment that defines users as a generic group. Thus, Figures 29 and 30 show the personas Soledad, representing refugee users, and Miranda and Guilherme, fictional characters, representatives of humanitarian organizations. The figures briefly describe the personas' biography and describe their main needs, challenges and opportunities. This information is based on interviews carried out in this research.

Soledad's persona, shown in Figure 29, presents a profile of a potential user of the Rede Refugia who has needs related to adapting to the host country and challenges for her socioeconomic insertion.

The personas Miranda and Guilherme, shown in Figure 30, represent users of organizations that need to collaborate with other organizations and people to leverage their actions.

# Soledad

WOMAN, 50 YEARS OLD,  
ENTREPRENEUR  
AND REFUGEE IN BRAZIL

BORN IN VENEZUELA, SOLEDAD HAS TWO CHILDREN. SHE  
CAME TO BRAZIL AFTER SUFFERING POLITICAL  
PERSECUTION IN HER HOME COUNTRY. ARRIVING  
HERE, SHE WORKED AS A BILINGUAL RECEPTIONIST  
AND LATER BEGAN  
IN THE FOOD BUSINESS. IN ADDITION, SHE LOOKS  
FOR WAYS TO SUPPORT OTHER COMPANIONS.



## Needs

- Adaptation in the host country, especially with the language and culture;
- Access to public and Humanitarian Organizations services;
- Collaboration between refugees, asylum seekers and migrants;

## Challenge

- How to have a socioeconomic insertion through work and access to a dignified life in the host country?

## Opportunities

- Establish networks of support and collaboration with others;
- Access public services and public policies more easily.

Persona Tool -Based on service design tools

Figure 29- Persona of people in the asylum process

Source: the author (2022).

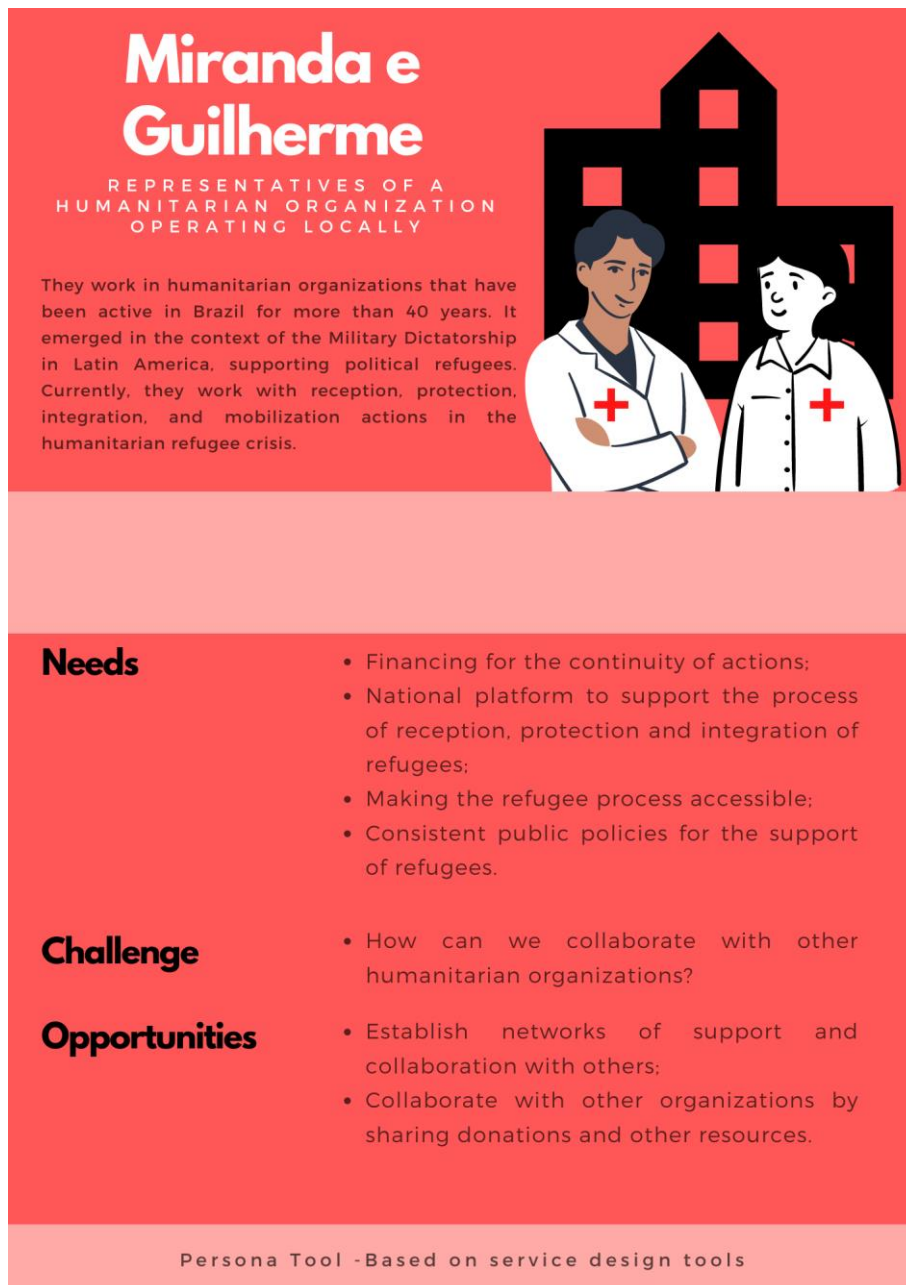


Figure 30- Persona of humanitarian organizations

Source: the author (2022).

Finally, the User's Journey is elaborated, using the blueprint tool, based on the guidelines of Vianna et al. (2012). It presents the flows of actions of users using the Rede Refugia service from the moment they become aware of it, authenticate themselves in the system, finalize the registration, and include their offers or demands until the actions of suggestions and co-creation on the platform. It is worth mentioning that the blueprint also allows the presentation of visible and invisible operations from the users' point of view and support activities.

Soledad's journey when accessing the Rede Refugia service is shown in Figure 31. At first, Soledad finds out about the existence of the service, mainly through social

networks, friends, acquaintances or possibly through the recommendation of an organization. Next, she accesses the platform, whether in the mobile or web version, registers authenticates, and accepts the terms of use. At this time, Soledad's data is stored in a database in compliance with the General Data Protection Law - LGPD (Brazil, 2018). Soledad defines the services she wants, and when viewing the alternatives, she can request or offer them to another user. The service allows her to connect and decide the most appropriate way to collaborate. Finally, Soledad evaluates the experience and suggests changes or new services.

Miranda and Guilherme's user journey is represented in Figure 32. As in the case of Soledad, they can learn about the service through social media, friends or even referrals from other organizations. Users' actions are similar to Soledad's, but their registration is done as a Legal Entity.

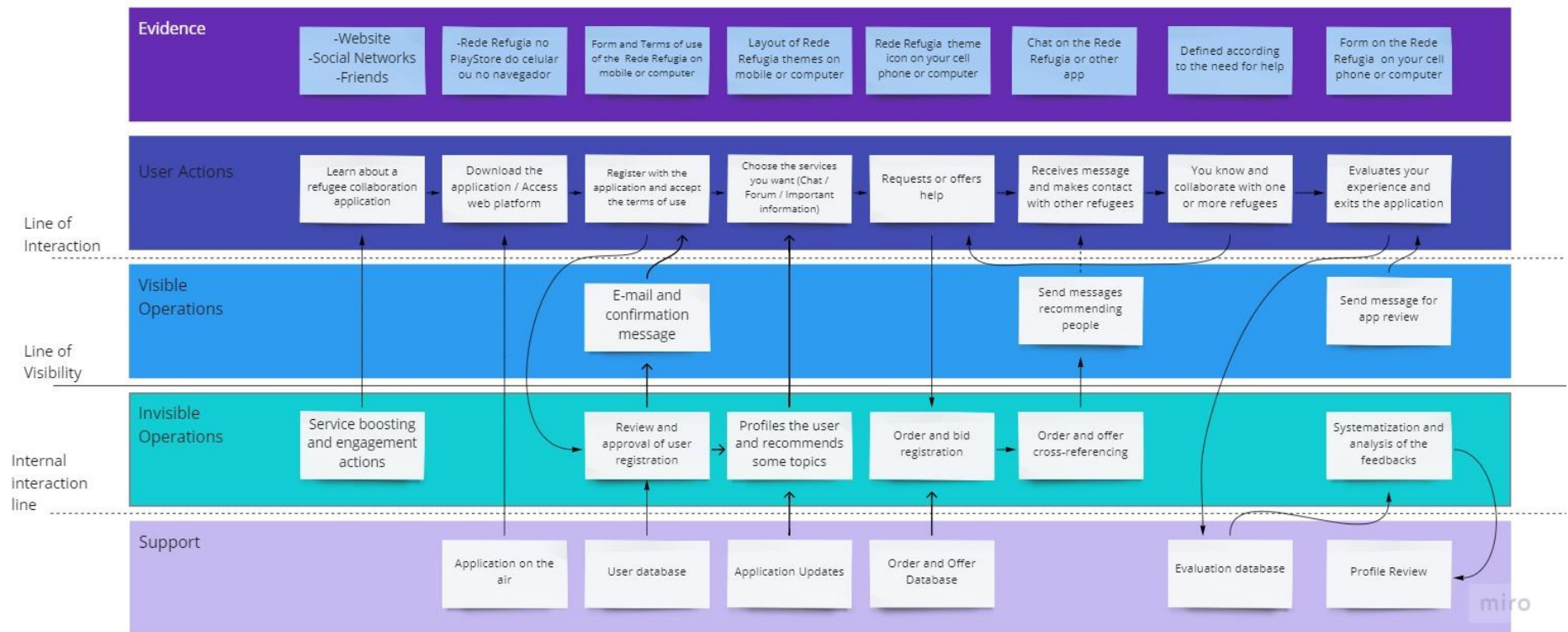


Figure 31- Blueprint of the User's Journey representing the refugee person

Source: Prepared by the author (2022)



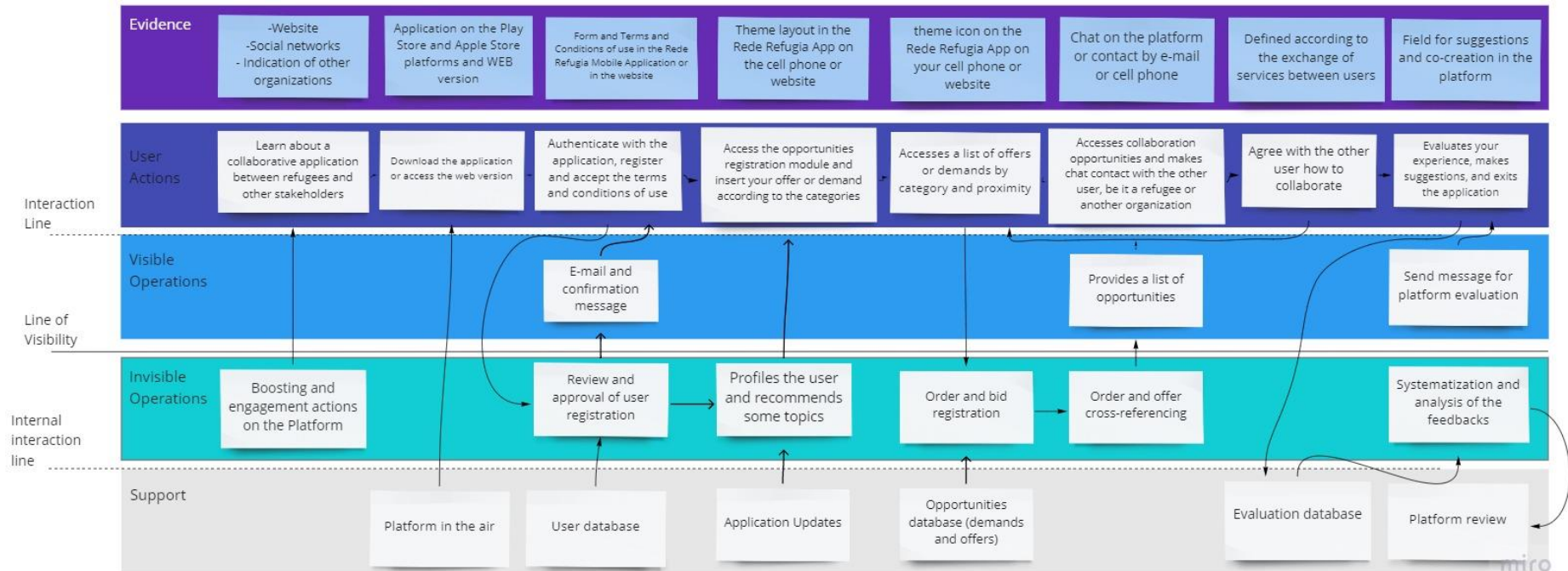


Figure 32- Blueprint of the Organization Representatives' User Journey

Source: Prepared by the author (2022)



#### 4.4 Experimentation

In this subsection, the results of the experimentation stage are presented, where the collaborative service Rede Refugia is prototyped and developed. Prototyping is performed using Figma graphic design software, version 88.1.0. The development of the artefact is carried out using Javascript with React Native framework. It is worth mentioning that this stage of the research involved the participation of members of the Technological Park Project, particularly an undergraduate scholarship holder in Industrial Design, a master's scholarship holder in Software Engineering and a doctoral fellow in Software Engineering.

The experimentation process, between prototyping and development, is carried out between September 2021 and September 2022, with biweekly meetings of team members.

In this way, it was decided to propose a collaborative service provided through a platform in web and mobile versions, considering that the main users who are people in the process of refuge, mainly use the cell phone during the reception, protection and integration process. , as shown in Table 33.

The prototyping stage is divided into five moments: definition of the service concept (purpose, vision and values); elaboration of the visual identity (brand); definition of service modules; elaboration of the design of the screens; Screen design review. In parallel to these steps, the platform is developed using the React Native framework.

The purpose of the Rede Refugia is defined in the ideation stage, and the aim is to facilitate meetings and strengthen the network of reception, protection and integration of people in forced international displacement, producing new meanings for the territory. The vision of the future is to become a public policy support service for the humanitarian crisis of refugees in Brazil, foreseeing to act at a local level (State of Rio de Janeiro) until the end of 2023 and in the medium and long term to provide a national. The main values of the Rede Refugia are humanized action; the positive socio-environmental impact; the appreciation of human diversity; social innovation; the defence of Human Rights; Sustainability in its social, environmental, financial and cultural dimensions; and the promotion of decent work.

During the months of September and December 2021, the visual identity of the Rede Refugia Service is built, and the main result is the brand shown in Figure 33.



Figure 33– Rede Refugia Logo

Source: Elaborated by the team of the Rede Refugia Project of the UFRJ Technological Park (2022)

In a second moment, the structure of the service in platform modules is defined. The platform is proposed to comprise a home page, a user profile registration module, and a collaboration module, which we identify as "Nossa Rede", in addition to the settings module.

The home page includes a brief description of the Rede Refugia, followed by guidelines on how the service works. Next, 10 (ten) collaboration categories are presented: housing, food, exchanges, transport, documentation, employment and income, communication, health and others. Finally, users can register and authenticate to use the platform. Figure 34 shows a screen print.



Figure 34– Rede Refugia Service homepage

Source: Elaborated by the team of the Rede Refugia Project of the UFRJ Technological Park (2022)

As designed in the business model, there are two types of users, one for people and one for organizations. Thus, to access the service, users must register their profiles and accept the terms of use and conditions of use available in APPENDIX F. Figure 35 shows the registration screens for both groups of users.

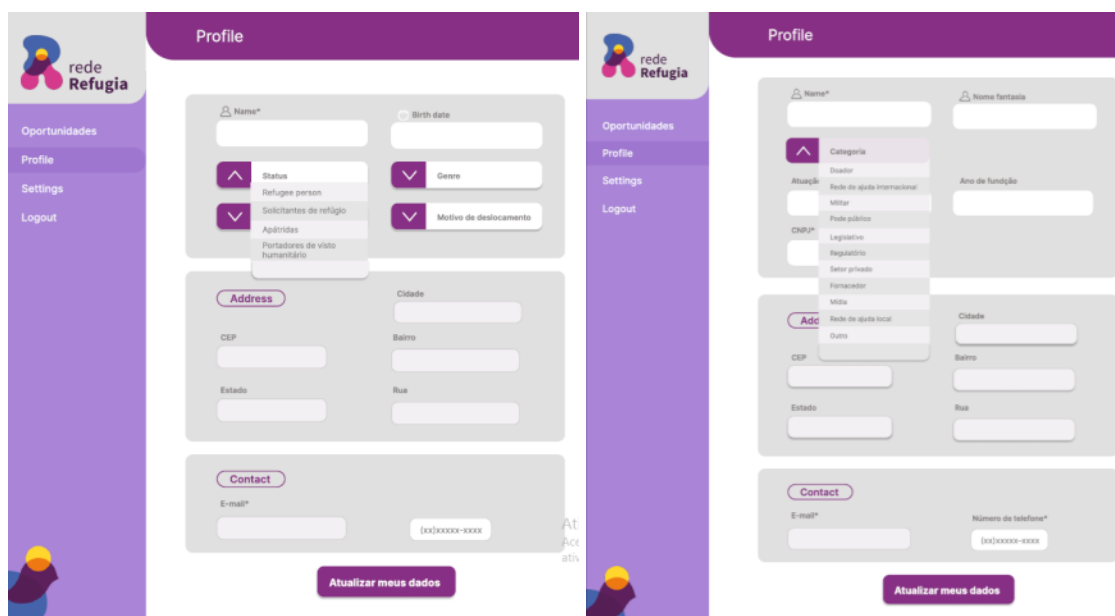


Figure 35- Profile registration page for refugees (a) and profile registration page for representatives of organizations (b)

( a )

( b )

Source: Elaborated by the team of the Rede Refugia Project of the UFRJ Technological Park (2022)

"Nossa Rede" collaboration module . From this screen, you can start the collaborative journey. Cards containing a title, a brief description, user identification, location, distance and the contacts is presented. In this module, the user can view the demands and offers, differentiated by the colours of the cards, as well as by the description. When finding an offer or demand for help, the user can get in touch and arrange the best way to collaborate. If the user does not find what he is looking for, he can click on the "Create" button and register his offer or demand help. It is worth noting that users can filter the offers/demands by both the categories mentioned above, as well as by distance and more recent ones. Users can also save bids/demands by clicking the card's heart icon. Figure 36 shows the collaboration module.

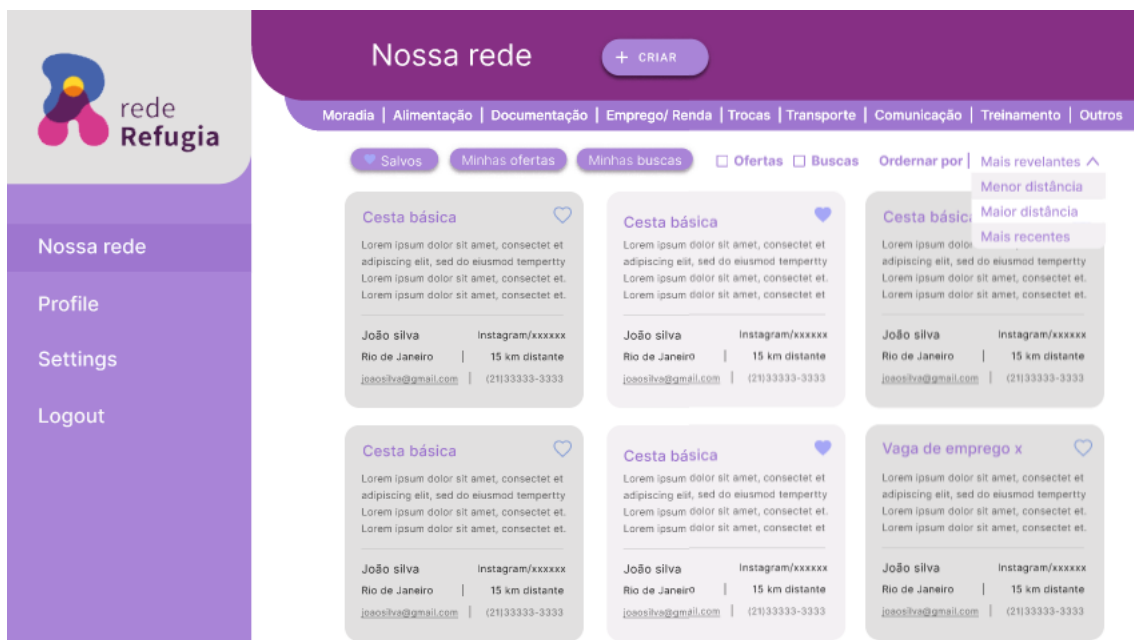


Figure 36– Rede Refugia Collaboration Module

Source: Elaborated by the team of the Rede Refugia Project of the UFRJ Technological Park (2022)

Offers and demands that have already been met must be excluded from the platform by users, bearing in mind that only unmet opportunities should remain on the Rede Refugia. Finally, users who no longer wish to use Rede Refugia services can delete their profile in the settings module, as shown in Figure 37.

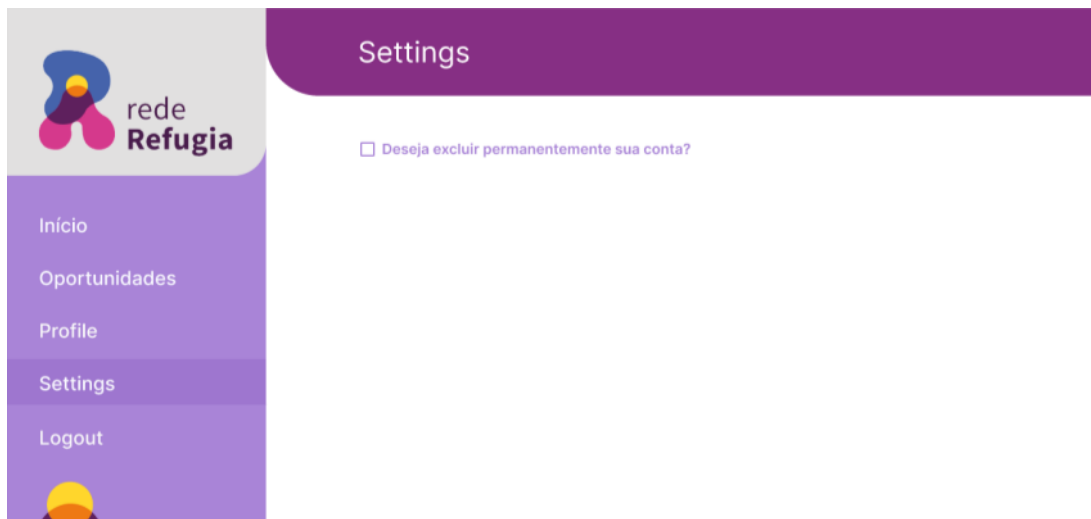


Figure 37– Rede Refugia settings screen

Source: Elaborated by the team of the Rede Refugia Project of the UFRJ Technological Park (2022)

In this way, it is expected to enhance collaboration between people in the asylum process and with stakeholders who work in humanitarian crises. The aim is to present a proposal for a user-centred solution that stimulates interpersonal relationships between refugee people and residents of host countries and organizations, whether governmental, NGOs or private initiatives.

It is expected that in 2023 the service will be launched, and the mobile version will be available through the digital platforms Google Play Store and Apple Store and the web version through the domain "rederefugia.org".

It is worth remembering that this proposed solution does not intend to elevate digital technology to a higher level than that of a tool to enhance collaboration. However, it is not intended to divert the role of the State as responsible for ensuring the reception, protection and integration of refugees. On the contrary, the intention is to support the governmental spheres so that public services become even more accessible to all.

#### 4.5 Evolution

This subsection presents the results and analyzes the usability tests carried out with potential users of the Rede Refugia. The recruitment of participants considers two categories: refugees and professionals from governmental or non-governmental organizations that assist refugees. Barnum et al. (2003) recommend 5 participants in the usability test, considering possible absences, and even 3-4 people are plausible.

Thus, the test is performed with 7 participants. Table 38 describes the 7 participants and their profiles, who will be contacted via email.

Table 38 - Profile of usability test participants

<b>Participant</b>	<b>Category</b>	<b>Organization / Country of Origin</b>	<b>Date</b>
<b>A</b>	organization representative	National Committee for Refugees	08/05/2022
<b>B</b>	organization representative	Brazilian Red Cross - CVB	08/05/2022
<b>C</b>	Expert in software development	Brazil	08/15/2022
<b>D</b>	organization representative	Human Institute	08/29/2022
<b>E</b>	Refugee person residing in Rio de Janeiro	Venezuela	08/05/2022
<b>F</b>	Refugee person residing in Rio de Janeiro	Venezuela	08/09/2022
<b>G</b>	Refugee person and expert in digital marketing	Democratic Republic of Congo	09/01/2022

Source: the author (2022).

Usability tests are carried out between August 5th and September 1st, 2022, with six participants interviewed in the research discovery stage and a software development specialist who performs the test as an organization representative.

It is worth noting that different scripts are used for usability testing among representatives of organizations and refugees, as per APPENDIX E, considering that users' experiences are different.

Thus, the script for refugees consists of six scenarios where users are able to perform eight tasks. The script for organization representatives presents six scenarios for participants to perform seven tasks, as shown in Table 39.

Table 39 - Summary of tasks used in usability testing for both types of users

	<b>Refugees</b>	<b>Representatives of organizations</b>
<b>task 0</b>		understand the service
<b>task 1</b>		authenticate the user
<b>task 2</b>		Complete user registration
<b>Task 3</b>	Use categories to filter offers	Use categories to filter requests

<b>Task 4</b>	register demand	register offer
<b>Task 5</b>	register offer	delete offer
<b>task 6</b>	delete offer	Change address in profile
<b>task 7</b>	Change address in profile	

Source: the author (2022).

The performance of refugee users is shown in Table 40.

Table 40 - Summary of performance of refugee users in usability testing by task

Participant	#0	#1	#two	#3	#4	#5	#6	#7
E	✔	✔	✔	✔	✘	✔	⚠	✔
F	✔	⚠	✘	✔	✘	⚠	✘	✔
G	✔	✔	✘	✔	✔	✔	✘	✔

✔ Task completed successfully  
 ⚠ Task completed with difficulty  
 ✘ task not completed

Source: author (2022).

Tasks 2, 4 and 6 are the most critical for the usability of refugees. Two participants reported not completing the registration because they felt they needed to be more confident about providing their personal data at first.




In task 4, participants report that when entering the platform and not finding an opportunity offer, instead of registering a demand, they would leave the platform. In task 6, some participants cannot delete the offer, as the action icon does not appear, indicating a bug on the platform.

It is highlighted that the three refugee participants understand the service, know how to use the category filters and have no difficulties changing the data in the profile.

Table 41 presents a summary of the performance of the organizations' representatives in the usability test.

Table 41 - Summary of the performance of users representing organizations in usability testing by task

Participant	#0	#1	#two	#3	#4	#5	#6
A	✔	⚠	✘	✔	⚠	✘	✔
B	✔	✔	✘	✔	⚠	✔	✔
C	⚠	✔	✘	⚠	✔	✘	✔
D	✔	⚠	⚠	✔	✔	✘	✔

- 
-  Task completed successfully
  -  Task completed with difficulty
  -  task not completed

Source: the author (2022).

Tasks 2 and 5 are more critical to the usability of the organization's representatives. The user still needs to complete registration. Users A and B indicate that they feel unsafe providing all the information.

As in the test with refugees, participants also need help deleting the offer because the icon does not appear.

It should be noted that there are also difficulties in performing tasks 0, 1, 3 and 4. The software development specialist reports that he needs help understanding the differences between offers and demands of opportunities well and cannot distinguish when the filters are being used. Participants A and D report difficulty in finding the field for authentication and access to the platform. In addition, there are also reports of difficulties in registering offers.

After presenting the scenarios, participants are invited to answer some questions about their experiences with the platform. All users like the platform, and some rate it as intuitive, straightforward and valuable. However, participants also indicate that adjustments are still needed.

Regarding satisfaction, refugees indicate that they are satisfied but that there is still concern about information security. Among representatives of organizations, two are satisfied with the platform but also concerned about security. The software specialist is neutral, and participant D says he is dissatisfied with the initial registration.

For refugee people, the most significant difficulty is in registering the offer, as they need to consider it more intuitive. As for the representatives of organizations, the most significant difficulties are in the obligation to create the login, in identifying users, and in registering demands and offers.

The main recommendations for changes to the platform are: including the education and events categories; enabling translation of screens into other languages; including interactions through chats and forums; evaluating the possibility of including a photo in the register; including a resume database; including alerts; and include more visuals.

Afterwards, the participants answered the System Usability Scale (SUS) questionnaire proposed by Brooke (1995). The main results are presented in Table 42.



Table 42 - Summary of responses to SUS

	A	B	C	D	E	F	G
1 I would like to use this system frequently.	5	4	4	4	4	5	4
2 I found the system unnecessarily complex	2	1	1	2	3	2	3
3 I thought the system was easy to use	4	3	3	4	4	4	2
4 I think that I would need the support of a technical person to be able to use this system	1	3	4	2	2	1	2
5 I found the various functions in this system were well c integrated	5	2	2	3	2	5	5
6 I thought there was too much inconsistency in this system	2	3	3	4	4	4	3
7 I would imagine that most people would learn to use this system very quickly	5	4	5	4	4	4	2
8 I found the system very cumbersome to use	1	2	2	3	4	2	1
9 I felt very confident using the system	3	3	2	3	3	3	2
10 I needed to learn many things before I could get going with this system	1	2	4	2	3	2	1
Score SUS for participant	87.5	62.5	55	62.5	52.5	75	62.5
SUS Average Score	65.36						

Source: The author organized a usability test with potential users (2022).

Participants' scores range from a minimum of 52.5 to a maximum of 87.5. The average score, which allows an overall evaluation of the service, is 65.36. According to the scale proposed by Bangor (2008) concerning the ranges of acceptability, the service is considered marginal high, indicating the need for continuous improvement.

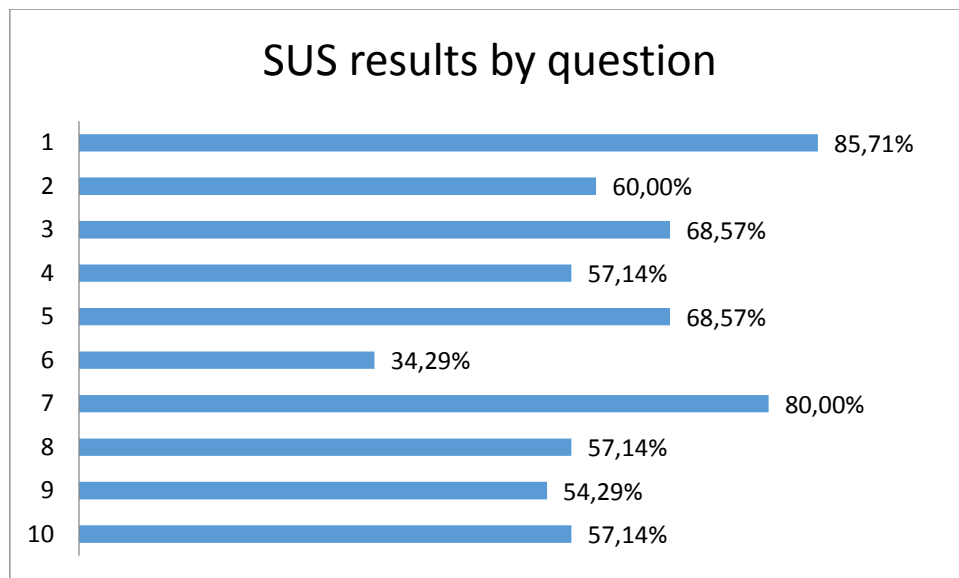
In the classification scale proposed by Bangor et al. (2009), the Rede Refugia prototype receives the concept D since its average rating is in the range of 60-69. Bangor et al. (2008) say that the usability assessment may vary according to the life cycle of the products or services and that those with scores greater than 70 are considered approved. On a scale below 50, the service is considered unacceptable (Bangor et al., 2008), which is not the case with the Rede Refugia, which is in a range that inspires reviews.

In the adjective classification, the Rede Refugia is on the scale defined as "Ok" according to Bangor et al. (2008), those with an average score between 52.01 - 72.75,

which corresponds to average usability. These global results indicate that the service is acceptable, but adjustments are still needed.

In addition to the general evaluation, a heuristic evaluation of the results is carried out, guided by Nielsen (1994). The responses are analyzed considering the average scores obtained. For odd-numbered questions, responses are graded on a scale of 1 to 5, while for even-numbered questions, responses are graded by subtracting five and calculating the average percentage. In Graph 2, the results per question are presented.

Graph 2 – SUS result per question.



Source: The author organized a usability test with potential users (2022).

Ease of learning is analyzed from the answers to questions 3, 4, 7 and 10, averaging 65.71%, representing a median result. However, 80% of participants believe that users will learn to use the system quickly.

Regarding efficiency, questions 5, 6 and 8 are taken into account, with an average of 53.33%, which according to Nielsen (1994), represents a need for a review, mainly of the inconsistencies in the system ( question 6).

Regarding the ease of memorization, question 2 is analyzed, where the average of the participants' grades is 60%, considered a median result.

The minimization of errors (question 6 ) is the priority activity in any review, as it has the lowest average of the entire usability test.

Finally, the participants' satisfaction is analyzed based on questions 1, 4 and 9. An average evaluation of 65.71% was obtained, indicating average service satisfaction.

However, it is worth noting that 85.71% of participants said they would like to use the system frequently.

The results obtained from the usability test contribute to the literature that discusses service design in the context of disasters. In practical terms, this investigation contributes to the validation and revision of the prototype of a collaborative service (i.e. Rede Refugia) that can generate a positive socio-environmental impact in the reception, protection and integration process of people in the flow of forced displacement in Brazil.

Applying the heuristic analysis proposed by Nielsen (1994), it is possible to identify the need to prioritize the minimization of errors on the platform and improve the efficiency of the service. Furthermore, evaluating the user experience provided insights into the co-creation process with potential users, reinforcing the concept of human centrality, as described by Stickdorn et al. (2018).

## **5. DISCUSSION AND RESEARCH CONTRIBUTIONS**

In this chapter, discussions about the contributions are presented. Thus, chapter 5 is organized into four subsections, namely: (i) contributions to theory; (ii) contributions to researchers; (iii) contributions to practitioners; and (iv) contributions to practice.

### **5.1. Contributions to the theory**

The main theoretical contributions of the research are inserted in the discussions about DHO and Humanitarian Supply Chain Management, especially in the response phase. In addition, theoretical considerations for Service Design are also made, especially on collaborative services and Social Innovation.

The research contributes to the knowledge linked to Supply Chain Management as it collaborates with the research gaps pointed out by Behl and Gutta (2019). First, the needs and desires of the stakeholders involved in the humanitarian crisis in Brazil are identified, as well as the main challenges and strategies. These findings allow proposing a solution that increases the level of partnership and collaboration between stakeholders, as in the Rede Refugia case. Second, the local aid network's main actions in response to Brazil's humanitarian crisis are defined, proposing a mechanism to increase the visibility of actions and fundraising. Third, an empirical model of using digital social technologies to support the post-disaster stage is presented when developing a service provided through a platform.

The research findings also contribute to Disasters and Humanitarian Operations - DHO insofar as, based on the disaster response process model systematized by Fontainha et al. (2022), proposes that the affected population, when possible, also act in disaster response activities. The possibilities for action by the affected populations are mainly concentrated in "service to the population" activities, described by Fontainha et al. (2022). Furthermore, the Refugee Network is an example of "service to the population" hit by disasters. The service provides essential information for DHO planning, such as type and quantity of resources required, communication of priorities to donors, receipt of donations and funds, accommodation locations for the affected population, identification of resources, and delivery of products to the population, as predicts Fontainha et al. (2022).

The research also complements the gap pointed out by Fontainha et al. (2017) insofar as it reaffirms that people affected by disasters, especially in the humanitarian refugee crisis, are active agents in the response phase. Mutual collaboration, whether

financial or not, between groups of refugee people and between organizations is identified as a way to alleviate the suffering caused by forced displacement, favouring the formation of solidary communities. In addition, active listening by stakeholder representatives contributes to the research agenda proposed by Zanker and Moyo (2020) but is applied in the Brazilian reality.

It should be noted that the performance of refugees in the response phase can go beyond collaboration and integrate processes of co-creation and proposition of services and public policies in response to the humanitarian crisis of refugees in Brazil. In this way, refugees are seen as active and indispensable political agents in response to disasters, whether to point out needs and priorities or collaborate with other people in a forced displacement flow with representatives of organizations and residents.

The research defines the levels of relationship between the main stakeholders in response to Brazil's humanitarian crisis. For refugees who arrive in Brazil through land borders, there is a considerable level of relationship with the Brazilian federal government, whether for initial assistance, migratory and health regularization or eventual reception and interiorization. As for refugees coming through air borders, it is clear that they also go through the process of migratory regularization but have less relationship with the federal government and eventually have the support of state and municipal governments. Both groups of refugee people have a strong relationship with the local help network, especially with NGOs, in addition to other refugees and residents. It is worth mentioning that the research results indicate that refugees do not feel directly supported by the Brazilian government, except with the financial aid made available during the Covid-19 pandemic. In this way, we also collaborate with the research gap of Abdellaty and Steele (2020) insofar as we point out some different attitudes of the Brazilian government towards the group of migrants and refugees.

For NGOs, financing actions is the main challenge in responding to the humanitarian crisis in Brazil. In this sense, the relationship with donors, the international aid network and the government is fundamental to guarantee the continuity and expansion of activities. In this way, the research results contribute to the theoretical discussion made by Luecke and Schneiderheinze (2017) and recommend that wealthier countries should support more substantially the response actions to the humanitarian crisis in middle and low-income countries, which generally receive a large flow of people in the process of refuge.

Thus, research on the humanitarian refugee crisis needs to understand the political, social, cultural, and economic contexts that force people to move internationally. The most frequent justification for requesting asylum in Brazil is the severe and widespread violation of human rights, as in many cases of Venezuelan

people. Persecutions for belonging to specific social and political groups also stand out, as in the analyzed cases of refugees from the Democratic Republic of Congo.

Arriving in host countries, refugees face many challenges. It is emphasized that displacement to different ethnic-linguistic countries increases the barriers to accessing reception, protection and seeking new ways of life. In this sense, it corroborates the research of Teye and Yebleh (2015), who points out the importance of local networks and social capital.

The research results also contribute to the theoretical field that discusses the agenda to encourage refugee entrepreneurship. Research evidence points out that more than entrepreneurship alone is needed to guarantee self-sufficiency for many refugees. Especially during the Covid-19 pandemic, many refugees report surviving only because of access to financial aid provided by the government. These results complement the criticisms made by İşleyen (2016), who points out the problems related to the agenda that proposes the alignment of humanitarianism with the neoliberal logic that reduces refugees only to the economic dimension. In this way, it is argued that even refugees involved in some entrepreneurial activity need to have their link with the State reestablished and that political, cultural, social, environmental and legal dimensions must be considered during the process of reception and international protection, not exempting host countries from complying with humanitarian assistance obligations to which they are signatories.

The contributions to the discussion by Skran and Easton-Calabria (2020) stand out insofar as they reinforce the need to consider the host countries' structural issues and the intersectionality of the actors involved in the refugee humanitarian crisis, especially the beneficiaries. Aspects such as class, race, gender, sexual orientation and skills need to be considered to define response actions that meet the specific challenges of each group, especially "minorities".

It also highlights the importance of research in the knowledge of Service Design insofar as the results of the research point to the importance of observing the processes of social innovation already established among the beneficiaries, as described by Jégou and Manzini (2008). These social innovation processes can be enhanced by a collaborative service proposal based on a system of exchanges, donations and humanitarian aid, which are not necessarily financial and commercial. In addition, the research results reaffirm the impossibility of projecting interpersonal relationships, as described by Cipolla and Manzini (2008). However, it indicates ways to facilitate meetings, using digital social technologies as channels to learn about opportunities and schedule collaboration experiences (LEITE et al., 2021).

## 5.2. Contributions to researchers

The present research brings contributions to researchers who work on the research theme through rigorous application of the methodology, which confers internal validity to the findings and artefacts developed. Thus, the structured review of the literature allows for identifying the State of the art on refugee entrepreneurship in the context of the simultaneous occurrence of two disasters. In addition, the main approaches, findings and discussions already carried out in the literature are identified, and the indication of perspectives still needs to be explored. Thus, this subsection highlights contributions mainly for researchers in Disasters and Humanitarian Operations and - DHO and those who research forced migration and refuge.

The systematic literature review identified a total of 577 documents on the research theme in the SCOPUS and ISI Web of Science databases. Of this total, 68 documents are selected for full reading and are the primary references on the subject of study. The research results indicate that from 2013 there was an increase in the number of publications in the interest of this research topic. The main reasons are the Civil War in Syria, and the humanitarian crisis in Afghanistan and Venezuela, which intensified between 2011 and 2015.

It also contributes by identifying the main outliers in the literature, carried out through the analysis of the number of citations, as shown in Figure 3 and Figure 4. A bibliometric analysis is also carried out that points out the main keywords used in this field. Of research and their relationship levels, organizing them into clusters that indicate the themes of most significant interest in recent years, as shown in Figures 10 and 11.

Content analysis also contributes to researchers as it points out the primary references for each category of analysis. Regarding refugees and international protection, eight documents are identified, highlighting the work of Abdelaaty and Steele (2020), Lister (2013), Luecke and Schneiderheinze (2017) and İşleyen (2016). In the refugee entrepreneurship and self-sufficiency category, 33 documents are identified, among them works criticizing the attempt to reconcile the humanitarian agenda with the neoliberal logic of the neoliberal market. The works by Skran and Easton-Calabria (2020), Turner (2020), Valek et al. (2020), Vergnano (2020), Salamoun and Azad (2017), and Scott-Smith (2016). In the category of disasters and environmentally forced migration, It contributes to the identification of 7 documents, among them those that discuss refuge and Covid-19 ( WADHWA, 2020; SHI e LIU, 2020; ZANKER and MOYO, 2020). In the category of proposals to support refugees,

eight works are identified, among which stand out Botina Narvaez (2020); Becerik-Gerber et al. (2018), Becker et al. (2018), and Brown and Mickelson (2018).

Finally, we highlight the contribution through the Design Science Research methodology associated with LSR and Design Thinking applied to a research question in the Humanitarian Operations and Disasters field, serving as a reference for research in other contexts and types of disasters.

### **5.3. Contributions to professionals**

From the point of view of professionals who work with Disasters and Humanitarian Operations and, the research identified and systematized the challenges of refugees and organizations and the main strategies to overcome them. This information can serve as a reference for humanitarian professionals in planning disaster response operations.

In addition, the research contributes to professionals by developing and introducing the humanitarian ecosystem of the collaborative service Rede Refugia. The service allows professionals representing the various stakeholders who work in the humanitarian crisis of refugees and forced migrations to use the platform to identify the demands of beneficiaries and also organizations, enabling collaboration with both groups. Professionals can also use the service to request support and set priorities based on georeferencing.

Representatives of non-governmental organizations that provide local help can raise awareness, seek partnerships with the private sector, request and share donations, and direct and optimize their actions through the information provided by the platform. Representatives of government bodies can direct information to refugees, such as public services for access to health, education, social assistance and others. For the organizations that make up the international aid network, the Rede Refugia service can be used to communicate actions and integrate multiple stakeholders' demands. From the point of view of the private sector that is already involved in the humanitarian crisis, the Rede Refugia can be used as a channel for disseminating the services provided to refugees and other companies.

It is worth noting that the Rede Refugia seeks to integrate and encourage collaboration among humanitarian professionals to identify possible intersections between the different agendas and interests in Disaster and Humanitarian Operations and response. Finally, this research reaffirms the work of Hasselknippe et al. (2014), who, among the recommendations to humanitarian designers, highlight the importance



of understanding the relationships between stakeholders, their connections and agendas as the value chains of humanitarian projects.

#### **5.4. Contributions to the practice**

This research contributes to practice and society as it proposes an alignment between practical-scientific and social interests, as described by Leiras et al. (2014). In this way, the definition of a prescriptive methodology, the DSR, allows adding value to knowledge and practical situations by proposing a solution, as is the case of Rede Refugia.

It is worth noting that the service developed within the scope of this research unfolds and is made possible by the approval of project notices, such as (i) the "Rede Refugia" approved with the highest score and first place in the notice of Special Projects of the Technological Park of the UFRJ; and the project entitled ( ii ) "Platforms for the integration of stakeholders in disaster preparedness and response operations" from the Public Notice of the program to support entrepreneurship with a positive socio-environmental impact in the State of Rio de Janeiro, promoted by the Carlos Chagas Filho Foundation for Support to Research in the State of Rio de Janeiro – FAPERJ. The projects guarantee the financing and development of the solution and validate the socio-environmental impact of the research. In this way, the potential for the service to collaborate with the relief of the suffering caused by the forced displacement of which refugees and environmentally displaced people are victims is reaffirmed.

The sustainable perspective of the Rede Refugia stands out, considering aspects such as the economic impact, where the platform encourages the insertion of refugees and migrants in the labour market, as well as the articulation of its undertakings with stakeholders from civil society, the public sector and the private sector. The socio-environmental dimension of the research is related to the reduction of inequalities based on access to services that alleviate suffering and promote well-being and, consequently, local integration, whether in the legal, social, economic or cultural dimensions.

In this way, the research aligns with and contributes to the Sustainable Development Goals – SDG, through (i) the promotion and integration of refugees and migrants in cities; (ii) encouraging access to services such as housing, health, education - associated with SDG 11; (iii) facilitation of the migration process – associated with SDG #10; and (iv) the promotion of fair labour relations – associated with SDG #8.

It is worth noting that the Rede Refugia service is at level 6 on NASA's TRL (Technology Readiness Level) scale, and there is an expectation of advancing to the level of operation with a real contribution to refugees in the process of reception, protection and social, economic and social insertion. Refugees in the year 2023. In this sense, the research also has a technological impact as the brand and computer program Rede Refugia are in the process of being registered with the National Institute of Industrial Property - INPI.

## 6. CONCLUSIONS

In this chapter, final considerations are made, including an overview of how the research objectives are achieved, the main limitations and suggestions for future research. Therefore, the present master's thesis aims to strengthen a collaboration process between entrepreneurial refugees, humanitarian organizations and other stakeholders, considering the context of the COVID-19 pandemic disaster.

In the discovery stage, awareness of the research problem is made by identifying the State of the art on refugees, the labour market/entrepreneurship and disasters. 468 documents are identified in the SCOPUS and Web of Science databases, and all abstracts are read. After applying the exclusion criteria presented in section 2.2, 68 documents remain for a full reading. Data analysis points to a more significant occurrence of publications in countries such as the United States, United Kingdom, Germany and Canada. Bibliometric analyzes allow the definition of analysis categories such as refuge and international protection; refugee entrepreneurship and self-reliance; a refuge, disasters and environmentally forced migration; stakeholder actions; and projects to support refugees.

The second specific objective is to identify existing solutions related to the insertion of refugees in the labour market. This objective is achieved through the results of the SLR and is systematized in subsection 3.2.5, where four solutions are identified to support refugees and other stakeholders. The first is the *Tech4SocialChange model*, presented by Reis et al. (2016), which proposes a collaboration between researchers and encourages partnerships with NGOs. The second is the work by Hasselknippe et al. (2014), who recommend a series of actions for designers of humanitarian services and products, such as: considering the geographic context, the climate, and the relationships and agendas of the stakeholders involved in the humanitarian response. The third is the work of Nielsen (2017), who proposes the integration of multi-stakeholders through a solution identified as "Agenda Space Mapping", using design thinking as a tool for developing the artefact. The fourth is the project that Armijos and Armijos (2017) studied that trained Colombian refugees, involving an Ecuadorian university and NGOs.

It should be noted that the results of interviews with refugees and representatives of organizations also identify solutions to support refugee people to enter the job market. UNHCR has developed the "Entrepreneurial Refugees" and "Companies with Refugees" initiatives. The Care Program for Refugees and Refugee Seekers – PARES da Cáritas, a pioneer in the care of refugees in Brazil, launched

2021 the Trampolim Platform, which supports refugees to undertake and enter the formal labour market. The Rio Refugia event, organized by SESC with the support of the NGO Abraço Cultural, Feira Chega Junto, and Cáritas, is also identified as a proposed solution. In addition, the purposes of some organizations, such as Mawon and Toti Diversidade are also linked to the insertion of refugees in the labour market. The first is focused on generating income for refugees and migrants, and the second offers training in information technology for refugees and migrants, aiming to meet the demands of professionals made by companies. Finally, the modality of internalization called "signposted job vacancy" promoted by the Acolhida Operation is identified.

The third specific objective is to develop a proposal for a solution that promotes better socioeconomic integration of refugees concerning the labour market and entrepreneurial actions. This objective is achieved from the steps defined in the DT. The discovery step is performed in two cycles. The first consists of LSR, case observations and immersion in the literature on Service Design, social innovation and collaborative services. The second cycle is carried out with ten interviews with refugee people, which allows the challenges of refugee people. The main ones are language, cultural issues, racism, xenophobia and the consequent difficulty in entering the job market. There are also ten interviews with representatives of organizations where funding is the biggest challenge for third-sector organizations. In the case of the Acolhida Operation, the need to transition from the military's role to representatives of other ministries is also pointed out as a challenge. The interpretation and ideation stages are carried out with the support of Design tools. Finally, in the experimentation stage, the solution is prototyped and developed using React Native. In this way, the third specific objective is met through the collaborative service Rede Refugia proposal, which contributes to the integration of refugees and other stakeholders, alleviating the suffering caused by forced displacement.

The fourth specific objective is to validate the proposed solution. This objective is achieved by carrying out a usability test with seven potential users of the service, 3 of which are refugees, three representatives of organizations, and one specialist in software development. This step validated the MVP of Rede Refugia, and the results indicate the need for some adjustments, mainly in minimizing errors.

By reaching the specific objectives, it is observed that the general objective of this master's thesis is also achieved. The humanitarian crisis of refugees added to the Covid-19 Pandemic increased vulnerabilities. It brought even more challenges to people in the process of forced displacement, such as unemployment, reduced income, difficulties in migratory regularization/asylum application and consequent lack of access to public services.

Collaboration between refugees and humanitarian organizations is a process that already exists to a greater or lesser extent in Brazil, having the interpersonal relationships established between the subjects as a backdrop.

The Rede Refugia is part of the humanitarian aid ecosystem as a collaborative service provided through a technological tool developed within the scope of this master's research in Production Engineering at the Federal University of Rio de Janeiro. The service is based on a tradition of DHO and Service Design research, reaffirming the interdisciplinary nature of Production Engineering. It should be noted that digital social technologies are addressed in this research as tools to support and facilitate humanitarian aid, recognizing their potential but not raising them to a greater degree of importance than humanitarian assistance. Therefore, it does not remove from the State the responsibility of guaranteeing the rights of people in the asylum process to which Brazil is a signatory.

Despite achieving the research objectives, it is recognized that there are some limitations in the research. First, it is important to mark the health context in which the research is inserted, conducted during the Covid-19 Pandemic that directly or indirectly affected the lives of all the people involved in the research, including the researcher.

Second, the research identified a limited number of articles discussing the pandemic's negative impacts on the relationship between work, refuge and disasters. It is worth mentioning that the documents selected for the LSR were obtained from a literature search carried out on October 6, 2020, less than a year after the emergence of the pandemic. There is also a limitation in defining the keywords used in the research, which was limited to three groups, as shown in Chart 1.

The third research limitation is related to using the VOSviewer platform, which does not automatically integrate files exported from SCOPUS and WoS. Information from documents in each database is exported and integrated manually, using auxiliary spreadsheets, to generate maps for bibliometric analyses.

The fourth limitation concerns interviewing refugees from only two origins, Venezuelans and Congolese. It should be noted that during the research, isolation was recommended, which limits the researcher's access to refugee groups, including conducting part of the interviews virtually. In addition, it is recognized that only some women are interviewed.

The fifth limitation concerns interviewing refugees only in urban environments in Rio de Janeiro. The limitations of access to groups of refugees in other regions of the country justify this.

A research agenda on collaborative services in other contexts of Disasters and Humanitarian Operations is recommended for future research. It is also proposed that future research collect data from representatives of other stakeholders who work in the humanitarian crisis of refugees in Brazil but who are not interviewed in this research, namely: representatives of the media; direct suppliers; the regulatory legislature; and donors. In this sense, an adaptation of the 3PR model proposed by Fontainha et al. (2017) to include the judiciary, which in the case of the humanitarian crisis of refugees in Brazil an essential actor in humanitarian assistance, in particular, the Public Prosecutions and Public Defenders.

Furthermore, research with refugees from other origins and regions of the country is recommended. Complementarily, research with specific groups of refugee people such as single mothers, people with disabilities, people belonging to the LGBTI+ population and indigenous people are also relevant. Remembering the different contexts in which refugees are inserted or not, such as in camps, in urban areas or even in the countryside. These intersectionalities can indicate specific needs and challenges that disaster response planning and operation must also consider.

Finally, future research is suggested that deepen the performance of the private sector in response to the humanitarian crisis of refugees in Brazil, as well as its relationship and possible conflicts of agendas with other stakeholders. Recommendations are important to identify the perspectives of the multiple actors involved in the response and recovery phase, which makes it possible to improve DHO planning and increase the potential for alleviating the proposed suffering.

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## APPENDIX B

### **REGISTRATION OF FREE AND CLEAR CONSENT**

#### **Information for participants**

1) **Title of study protocol:** Rede Refugia: mutual collaboration between refugees and humanitarian organizations .

2) **Invitation:**

You are being invited to participate as a volunteer in the research called Rede Refugia: **mutual collaboration between refugees and humanitarian organizations** . This research was approved by the Research Ethics Committee of the **CENTRO DE FILLOSOFIA E CIÊNCIAS HUMANAS OF THE FEDERAL UNIVERSITY OF RIO DE JANEIRO / CFCH – UFRJ**. The Research Ethics Committee is an interdisciplinary and independent Collegiate body, constituted under the terms of Resolution 466/2012 of the National Health Council - CNS, and created to defend the interests of research participants in their integrity and dignity. The institution proposing the research is the Graduate Program in Production Engineering COPPE/UFRJ. This document has all the necessary information about the research being carried out. **Your collaboration in this study is very important, but the decision to participate must be yours**. Please take the time to carefully read the information below and ask questions if anything is unclear or if you would like more information. Do not be in a hurry to decide whether or not you want to participate in this research.

3) **What is the project?**

The project consists of a study on mutual collaboration between refugees and humanitarian organizations in the context of two disasters, the refugee humanitarian crisis and the Covid-19 pandemic. This is a multi-methodological research, having *Design Science Research* (DSR) as its umbrella method . The data collection phase stands out, characterized by semi-structured interviews with enterprising refugee people, through google meet . The study is justified in that it intends to contribute to supporting a group of people in a situation of socioeconomic vulnerability, in addition to being a contemporary phenomenon still little explored, especially in Production Engineering, reaffirming its interdisciplinary character. Initially, the state of the art is described in relation to the categories refugees, labor market/ entrepreneurship and disasters. In a second moment, existing solutions are identified and new solutions are proposed for the challenges related to the process of reception and international protection of refugees.

#### **4) What is the purpose of the study?**

The present study has the general objective of structuring a mutual support process established between enterprising refugees, humanitarian organizations and other stakeholders, also considering the context of the COVID-19 pandemic disaster.

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#### **5) Why was I chosen ?**

The decision to invite you to participate was made because you are a member of the interest group of this research, that is, refugees, asylum seekers or stateless persons.

#### **6) Do I have to participate?**

You are the one who decides whether or not you would like to participate in this study/research. If you decide to participate in the Refugee Network project: mutual collaboration between refugees and humanitarian organizations, you must sign this Register and you will receive a copy signed by the researcher, which you must keep. Even if you decide to participate, you are still free to withdraw from activities at any time, without any reason. This will in no way affect your participation in other activities and will not cause you any harm.

#### **7) What will happen to me if I participate? What I have to do?**

Your participation will consist of granting a virtual interview, carried out by the google meet platform, previously scheduled, to answer questions related to the challenges faced in the protection and reception process found in Brazil, mainly with regard to the insertion in the world of work by through entrepreneurship and also on the mutual cooperation of refugees with each other and with humanitarian organizations.

#### **8) What is required of me in this study beyond routine practice?**

Only the interest and availability of 45 (forty-five) minutes to 1 (one) hour to participate in the interview.

#### **9) Will I have any expenses for participating in the research?**

Participating in this study will be at no cost to you. There will also be no payment of any kind due to your participation in the study.

#### **10) What are the possible risks of participating in the study?**

All research carries some kind of risk. In this research, the risk can be evaluated as minimal, that is, the participant may have some discomfort or embarrassment in reporting their experience. In order to minimize these risks, the participant has the possibility to give up answering the questionnaire and stop participating in the research at any time.

#### **11) What are the possible benefits of participating?**

The following benefits are expected from participating in the research: development of a support service for refugees affected by the COVID-19 pandemic, in particular refugees who undertake, managing their own businesses - a contemporary socioeconomic phenomenon still little explored. And also, from the approach of the COVID-19 pandemic as a disaster and its relationship with vulnerable populations, such as refugees, asylum seekers and stateless persons - RSRA, to contribute to the advancement of scientific knowledge in the field of Engineering Production, reaffirming its interdisciplinary character.

### **12) What happens when the study ends?**

The research data will be published in the researcher's master's dissertation and will be published in books and scientific journals in the future. You will be informed when the dissertation is available for consultation on the institution's website.

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### **13) What if something goes wrong?**

Your participation in this study is voluntary and not mandatory. You may refuse to participate in the study or withdraw your consent at any time, without giving a reason. If you wish to opt out of the survey, you will not suffer any harm.

### **14) Will my participation in this study be kept confidential?**

We assure you that your privacy will be respected and your name or any information that may, in any way, identify you, will be kept confidential. The responsible researcher undertakes to keep the research data on file, under his custody and responsibility, for a minimum period of 5 (five) years after the end of the research.

### **15) Contact for additional information**

The researcher guarantees you free access to all additional information and clarifications about the study and its consequences. You can access researcher Estevão Cristian da Silva Leite by phone (21) 99418-7527 or by email: [estevao.leite@ifrj.edu.br](mailto:estevao.leite@ifrj.edu.br)

Proposing Institution Data.

CEP data: CFCH Research Ethics Committee – UFRJ Praia Vermelha Campus – CFCH Dean's Building, 3rd floor, Room 30 – Telephone: (21) 3938-5167 – Email: [cep.cfch@gmail.com](mailto:cep.cfch@gmail.com)

The Research Ethics Committee is a collegiate body responsible for monitoring the actions of this project in relation to their participation, in order to protect the rights of participants in this research and prevent possible risks.

### **16) financial remuneration**

No incentives or financial rewards are foreseen for your participation in this research.

Thank you for reading this information. If you wish to participate in this study, please sign this Informed Consent Form and return it to the researcher. You must keep a copy of this document for your own guarantee.

1 – I confirm that I have read and understood the above study information and that I have had the opportunity to ask questions.

2 – I understand that my participation is voluntary and that I am free to withdraw my consent at any time, without having to give explanations, and without suffering prejudice or having my rights affected.

3 – I agree to participate in the survey above.

Participant name: \_\_\_\_\_

Participant signature: \_\_\_\_\_

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**NOTE: Two copies must be made, one for the user and another for the researcher. Or according to data through the link:** The RCLE will be obtained virtually, through the form available at the link: [https://docs.google.com/forms/d/e/1FAIpQLScouwE4M6c8UqG0Igr1NWTGsK9WjpDtuHelpHCOZKaLo4rUuA/viewform?usp=pp\\_url](https://docs.google.com/forms/d/e/1FAIpQLScouwE4M6c8UqG0Igr1NWTGsK9WjpDtuHelpHCOZKaLo4rUuA/viewform?usp=pp_url).

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**Translated by the author**



## APPENDIX C

### DATA COLLECTION INSTRUMENT – REFUGEE ENTREPRENEURS

<b>PERSONAL DATA</b>
Name:
Genre: <input type="checkbox"/> Man <input type="checkbox"/> Women <input type="checkbox"/> Other
Regarding color/race, how do you define yourself?
Age:
City:
Contact:
Education: <input type="checkbox"/> Elementary School Interrupted <input type="checkbox"/> Elementary School Studying <input type="checkbox"/> Complete primary education <input type="checkbox"/> Interrupted High School <input type="checkbox"/> High School Studying <input type="checkbox"/> Complete high school <input type="checkbox"/> Graduation Interrupted <input type="checkbox"/> Graduation Studying <input type="checkbox"/> Completed graduation <input type="checkbox"/> Graduate Interrupted <input type="checkbox"/> Graduate Studying <input type="checkbox"/> complete graduate
Employment status: <input type="checkbox"/> Formal Entrepreneur <input type="checkbox"/> Informal Entrepreneur <input type="checkbox"/> Unemployed (looking for a job) <input type="checkbox"/> Unemployed (Not looking for a job) <input type="checkbox"/> from home <input type="checkbox"/> formal worker
Family income: <input type="checkbox"/> less than 1 minimum wage <input type="checkbox"/> 1 to 2 minimum wage <input type="checkbox"/> from 2 to 4 minimum wage <input type="checkbox"/> from 4 to 10 minimum wage <input type="checkbox"/> from 10 to 20 minimum wage <input type="checkbox"/> above 20 minimum wage

<b>PROCESS OF REFUGEMENT AND MUTUAL COLLABORATION</b>
1. What were the main challenges you encountered in the reception and protection process in Brazil?
2. What was the cause for the international displacement?
3. Regarding the application for refugee status, what were the main difficulties? What is the current status?
4. Did you receive any help in the reception process? If yes, which one? From who?
5. Have you ever helped anyone else in the host process? If yes, what kind of help?
6. Have you received any support from the Brazilian government? If yes, which

one? Which sector?
7. Have you received any support from humanitarian organizations? If yes, which ones? What kind of support?
<b>LABOR MARKET AND ENTREPRENEURIAL PROCESS</b>
8. Was the creation of the business your first source of income?
9. How do you perceive your self-sufficiency?
10. What is the main motivation to undertake?
11. Did you have any support in your entrepreneurial process? If so, from whom?
12. Is your family income better today than in your home country?

<b>IMPACT OF COVID-19</b>
13. How has the Covid-19 pandemic impacted your business?

<b>USE OF TECHNOLOGY</b>
14. Are you regularly connected to the internet? If so, which means do you usually connect? (Computer/ Smartphone)
15. Where do you look for help?
16. Do you use any type of digital technology (social networks/applications)?

Translated by the author

## APPENDIX D

### **Questionnaire for representatives of organizations**

1. What are the main actions developed by the organization in relation to refugees?
- two. What are the challenges faced by the organization in its work in the refugee humanitarian crisis ecosystem?
3. How do you see yourself trying to overcome the challenges mentioned?
4. How do you perceive the main challenges faced by the beneficiaries of the actions you propose? (If they don't comment on the language, ask).
5. Considering the 3PR stakeholders model (FONTAINHA, 2017), which stakeholders does the organization maintain a relationship with and at what level?
6. Is there currently any kind of mutual collaboration between your organization and other humanitarian organizations?
7. Do you provide any kind of support to entrepreneurial refugees? How does this happen?
8. Are there people among the refugee population that they serve who have displaced themselves due to some type of disaster? Could you detail?
9. What were the impacts of the covid-19 pandemic on the activities carried out by the institution?
10. In contact with other institutions and the public you serve, how is technology used? What channels do you use today?

Translated by the author

## APPENDIX E

### **Usability Test Guide for the Rede Refugia**

This script aims to organize the pilot test procedure of the Rede Refugia from the perspective of usability testing.

#### **Introduction**

Hello, I'm X and I will be the usability test guide for the Rede Refugia platform, and Y will be the observer, being responsible for analyzing your interactions during the test.

It is important to remember that we are not evaluating the user, but the Rede Refugia platform and the way it was conceived. Feel free to use the platform however you like. The time we will have for this test will be a maximum of **30 minutes**.

#### **User scenarios "People in the process of asylum or migrants"**

Now I will present some scenarios so that you can test the Rede refugia platform. These scenarios involve objectives that you will have to fulfill until the end of our test time, you can navigate throughout the platform until you reach the objective in the proposed scenario, and let us know when you finish. And you can act naturally when using the platform. Did you get it?

(ask them to share the screen and enter the link sent in the chat)

**Scenario 0 : Navigate freely on this initial screen of the Rede Refugia platform and then comment out loud what you understand about this platform.**

Task 0 : Understand the platform

Time available: 5 minutes

**Did you have any difficulties doing the task? Do you have any suggestions?**

**Context: You are a refugee or migrant and have just arrived in Rio de Janeiro.**

**Scenario 1 : You need help applying for asylum in Brazil and getting your documents. Look for the nearest offer of help to you, just as you would in a real situation.**

Preparation: register 10 offers, 2 of documents, and another 8 of other categories (cannot be employment)

- Task 1 : Authenticate User
- Task 2 : Complete the user profile
- Task 3 : Use categories to filter offers

Note: If the user registers a demand instead of using the filters, ask him/her to repeat the action, trying to use the category and filter resources more. In this case, it will be recorded as a task completed with difficulty.

Available time: 5 minutes.

**Did you have any difficulties in achieving the proposed objective? What would you change in this part of the platform?**

**Scenario 2 : You are now looking for job opportunities in your field, just as you would in a real situation.**

- Task 4 : register the demand
- Available time: 3 minutes.

**Did you have any difficulties in achieving the proposed objective? What would you change in this part of the platform?**

**Scenario 3 : You opened a typical food business in your country, but you need to hire someone to help you, just like you would in a real situation.**

- Task 5 : register the offer
- Available time: 3 minutes

**Did you have any difficulties in achieving the proposed objective? What would you change in this part of the platform?**

**Scenario 4 : You realize that the last offer you created will no longer be needed, how do you proceed? If possible, narrate the solution you find in navigation aloud.**

- Task 6 : Delete the offer
- Available time: 3 minutes

**Did you have any difficulties in achieving the proposed objective? What would you change in this part of the platform?**

**Scenario 5 : You noticed that your address in your profile is wrong, change your zip code and address.**

Task 7 : Change address in profile  
Available time: 3 minutes

**Did you have any difficulties in achieving the proposed objective? What would you change in this part of the platform?**

### **Scenario for users representing humanitarian organizations**

**I will present some scenarios so that you can test the Rede refugia platform. These scenarios involve objectives that you will have to fulfill until the end of our test time, you can navigate through the entire platform until you reach the objective in the proposed scenario. You can act naturally when using the platform. Did you get it?**

**Scenario 0 : Navigate freely on the initial screen of the Rede Refugia platform and then comment out loud what you understand about this platform.**

Task 0 : Understand the platform  
Time available: 5 minutes

**Did you have any difficulties in achieving the proposed objective? What would you change in this part of the platform?**

**Context: You are a professional from an organization that supports refugees and asylum seekers in obtaining documents from the Brazilian government.**

**Scenario 1 : You want to know if there are demands already registered on the platform for support in obtaining documents closer to your organization. Report aloud if you found any demand.**

Task 1 : Authenticate User  
Task 2 : Complete the user profile  
Task 3 : use categories to filter demands

Note: If the user registers an offer instead of using the filters, ask him/her to repeat the action, trying to use the category and filter resources more. In that case, it will be recorded as completed with difficulties.

Available time: 5 minutes.

**Did you have any difficulties in achieving the proposed objective? What would you change in this part of the platform?**

**Scenario 2 : You want to offer your organization's services to support you in obtaining documents.**

Task 4 : register the offer  
Available time: 3 minutes

**Did you have any difficulties in achieving the proposed objective? What would you change in this part of the platform?**

**Scenario 3 : You realize that the last offer you created will no longer be needed, how do you proceed? If possible, narrate the solution you find in navigation aloud.**

Task 5 : Delete the offer  
Available time: 3 minutes

**Did you have any difficulties in achieving the proposed objective? What would you change in this part of the platform?**

**Scenario 4 : You noticed that your address in your profile is wrong, change your zip code and address.**

Task 6 : Change address in profile  
Available time: 3 minutes

**Did you have any difficulties in achieving the proposed objective? What would you change in this part of the platform?**

### **wrap-up conversation**

**What was your experience with the platform?**

**Have you ever sold any products online? If so, how was the experience? (I don't know if this question is relevant to this step)**

**How satisfied or dissatisfied are you with the platform?**

**What was your biggest difficulty when using the platform?**

**What was your greatest ease when using the platform?**

**What modifications would you make to the platform to make it perfect for you?**

### **SUS questions (define)**

**1. I think I would like to use this system often.**

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

**2. I find the system unnecessarily complex.**

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

**3. I find the system easy to use.**  
( ) Strongly Disagree ( ) Disagree ( ) Neutral ( ) Agree ( ) Strongly Agree

**4. I think I would need help from a person with technical knowledge to use the system.**  
( ) Strongly Disagree ( ) Disagree ( ) Neutral ( ) Agree ( ) Strongly Agree

**5. I think the various system functions are very well integrated.**  
( ) Strongly Disagree ( ) Disagree ( ) Neutral ( ) Agree ( ) Strongly Agree

**6. I think the system has a lot of inconsistency.**  
( ) Strongly Disagree ( ) Disagree ( ) Neutral ( ) Agree ( ) Strongly Agree

**7. I imagine people learn how to use this system quickly.**  
( ) Strongly Disagree ( ) Disagree ( ) Neutral ( ) Agree ( ) Strongly Agree

**8. I find the system cumbersome to use.**  
( ) Strongly Disagree ( ) Disagree ( ) Neutral ( ) Agree ( ) Strongly Agree

**9. I feel confident using the system.**  
( ) Strongly Disagree ( ) Disagree ( ) Neutral ( ) Agree ( ) Strongly Agree

**10. I need to learn several things before I can use the system.**  
( ) Strongly Disagree ( ) Disagree ( ) Neutral ( ) Agree ( ) Strongly Agree

**Finalization**

**Thank you for your participation. We hope you will be able to use the Rede Refugia soon.**

Translated by the author



## APPENDIX F

### Terms and conditions of use of the Rede Refugia platform

These terms and conditions apply to the use of solutions offered by the Rede Refugia platform, through the application available in the Google Play Store and Apple App Store virtual stores and the website <http://rede-refugia.web.app/>, of intellectual property from the FEDERAL UNIVERSITY OF RIO DE JANEIRO (UFRJ) federal authority registered with the CNPJ under number 33.663.683/0001-16.

Any user of the site and/or application who accesses or uses the pages and solutions of the Rede Refugia Platform must accept these Terms and Conditions of Use, as well as the other policies and principles that govern it.

The user must read and make sure that he has understood and accepts all the conditions established in the Terms and Conditions of Use of the Rede Refugia platform, as well as in the other documents incorporated therein by reference, before registering as a user of the Rede Refugia platform. .

We reserve the right, at our sole discretion, to change, modify, delete or add to any part of the policies and terms and conditions of use of the system without any notice being required.

If we make changes to the Terms and Conditions of Use we will indicate at the top of this page the date of the last revision. The user who continues to access the system or continues to use its facilities after any policy modification constitutes acceptance of the new Terms and Conditions of use of the Rede Refugia platform . If the user does not agree to accept this or any future amendment to these Terms and Conditions of Use, he must not access or use the Rede Refugia platform. It is the user's responsibility to regularly check for changes and review changes to the Terms and Conditions of use of the Rede Refugia platform.

#### summary

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#### Platform Description

Rede Refugia is a project conceived within the scope of the Postgraduate and Production Engineering Program at COPPE/CT/UFRJ, and its team includes undergraduate and graduate researchers from different areas of knowledge, under the coordination of the Master's Degree Estevão Leite and guidance from Professor Tharcísio Cotta Fontainha.

The Rede Refugia aims to facilitate the process of reception, protection and integration of people in forced displacement, through mutual collaboration between refugees, asylum seekers, stateless persons, public authorities, private entities, humanitarian organizations and other stakeholders that operate in the ecosystem. humanitarian.

The platform, developed through a process of social innovation with a focus on collaboration between people and organizations, seeks to foster an environment that favors the implementation of innovative solutions to the problems experienced by forced migrants living in Brazil. It will be composed of:

- A mobile application that can be found for free download in the respective virtual stores Google Play Store and Apple App Store.
- An institutional webpage available at <http://rede-refugia.web.app/>

### User registration

The Rede Refugia platform offers services free of charge to its users , whether they are individuals, public authorities, private entities, humanitarian organizations and other stakeholders that act in the humanitarian ecosystem.

In order to register on the Rede Refugia platform, interested parties, in addition to being aware of and agreeing with these Terms and Conditions of Use, must fill out a form with personal information and/or the entity they represent, also indicating how they intend to use the platform.

The data to be collected, and its treatment purpose, will be:

- For users who are refugees, asylum seekers, stateless persons, humanitarian visa holders and migrants:
  - Name: will be used to identify the user;
  - Document: will be used for user identification;
  - Nationality: will be used for user qualification;
  - Date of birth: will be used for user qualification;
  - Gender: will be used for user qualification;
  - Status: will be used for user qualification;
  - Reason for displacement: will be used for user qualification;
  - Address and contacts: will be used to contact the user, when necessary;
- For users who are organizations, notably public bodies, companies and organizations that act or wish to act in the humanitarian crisis of refugees:
  - Name: will be used to identify the user;
  - Legal representative: will be used for user qualification;
  - CNPJ: will be used for user identification;
  - Performance: will be used for user qualification;
  - Working time: will be used for user qualification;
  - Category (donor, international aid network, public entity, private sector... others);
  - Address and contacts: will be used to contact the user, when necessary;

If registered users wish to end their journey on the HandsOn platform , they may request the deletion of their registration through the “Delete” field in the “Settings” tab of the platform.

### Privacy and Data Protection Law

Your privacy is important to us! Personal information provided by users to the Rede Refugia platform will be treated in accordance with the provisions of Law No. 13,709, of August 14, 2018 - General Law for the Protection of Personal Data (LGPD).

When registering in the Rede Refugia, the user authorizes the processing of their personal data by their coordinators, who are responsible for handling the data in accordance with the LGPD rules, bearing with the requirements arising from possible illegal acts. It is important to point out that the management team records accesses with date and time for system control.

As a user, you agree to grant the Rede Refugia platform the right to do with the contents of your publications and interactions what we consider most appropriate for the purposes of the

platform, as well as to allow others to do the same, in both cases, without the need for prior notice, acknowledgment or payment.

While we may moderate users' activities on the Platform, we are not obligated, nor should you expect us to take action in response to any content posted or relationship established on the Platform. Opinions expressed by others represent their own opinions and are not endorsed or approved by us. We reserve the right not to post any content that you submit, and to remove, edit or move, at any time, any content submitted and posted on this site that does not comply with our Terms and Conditions of Use or for any other reason. that we deem appropriate.

The data resulting from the use of this platform can be published in guides, reports, journal articles and scientific conferences. All information obtained will be used for scientific research and, under no circumstances, will names, contacts or any data capable of individualization appear in any publications. The database will be archived and kept in absolute secrecy, in case of discontinuity of the Rede Refugia platform.

We will cooperate with law enforcement authorities and comply with any court order regarding any claim or investigation due to any content posted or activity by our users, providing such content and information about your identity, if necessary, as well as other relevant information.

Decisions regarding the processing of personal data carried out by the Rede Refugia platform will be the responsibility of its controller, the project coordinator. The rights applicable to users are those conferred by federal legislation, highlighting:

- Right of confirmation and access (Art. 18, I and II): it is the user's right to obtain from the service confirmation that the personal data concerning him/her are being processed or not and, if that is the case, the right to access your personal data.
- Right of rectification (Art. 18, III): is the right to request the correction of incomplete, inaccurate or outdated data.
- Right to limit data processing (Art. 18, IV): it is the user's right to limit the processing of their personal data, which may require the deletion of unnecessary, excessive or processed data in violation of the provisions of the LGPD.
- Right of opposition (Art. 18, § 2): it is the right of the user to, at any time, oppose the processing of data for reasons related to his particular situation, based on one of the hypotheses of waiver of consent or on case of non-compliance with the provisions of the LGPD.
- Right not to be subjected to automated decisions (Art. 20, LGPD): the data subject has the right to request the review of decisions taken solely on the basis of automated processing of personal data that affect their interests, including decisions aimed at defining the your personal, professional, consumption and credit profile or aspects of your personality.

For more information about the processing of data based on the LGPD, the user should contact via email.

Without prejudice to any other administrative or judicial remedy, all data subjects are entitled to file a complaint with the National Data Protection Authority, based on Art. 18, sole paragraph, of Law No. 13,709/18 (LGPD).

#### Platform usage

To access or use the Rede Refugia application and webpage, compliance with certain rules is required.

The user is not allowed:

- Mislead Platform staff, or anyone else as to your identity or the origin of submitted content, or falsely claim to represent a person, organization or entity;
- Use the technological applications for the purpose of violating any law, rule or regulation;

- Using any technological means to interfere with or interrupt the operation of our computer systems, servers, networks, databases, software, hardware or equipment used by or for this website;
- Interfere with the use or enjoyment of this website by third parties;
- Introduce code that is disruptive or harmful to the functioning of this website;
- Attempting to gain unauthorized access to our computer systems, servers, networks, databases, software, hardware or equipment, including: user-restricted areas of this site; third-party logins and passwords; or personal information and personal accounts of third parties.
- Post, publish, distribute, upload, disseminate, transmit or link to the Rede Refugia platform any material:
  - That is abusive, hateful, xenophobic, homophobic, discriminatory, malicious, aggressive, threatening, violent, sexist, harassing, indecent, tortuous, defamatory, knowingly false, misleading, vulgar, obscene, offensive, scandalous, sexually explicit, offensive or otherwise questionable;
  - Incites hatred, racism, religious intolerance or physical harm of any kind
  - Violates the privacy or legal rights of any person or organization;
  - That promotes crimes against honor or any violation of municipal, state, federal laws and international conventions.
  - That contains corrupted files, viruses, trojans, worms, or any other file that is harmful or destructive.
  - Related to gambling, unsolicited or unauthorized advertising, promotional material, "junk mail", "spam", "chain letters", and "pyramid schemes";
  - About which the user does not have or does not have the necessary rights to publish or transmit them;

We clarify that in the event of non-compliance with the guidelines set out in these Terms and Conditions of Use, Rede Refugia may warn, suspend or cancel, temporarily or permanently, a user's account at any time, as well as initiate the appropriate legal actions. In cases of disabling the user's registration, all active advertisements and/or offers made will be automatically cancelled.

#### Applicable legislation and jurisdiction of election

All items in these Terms and Conditions of Use are governed by the laws in force in the Federative Republic of Brazil. in particular Law No. 12,965/14 (Civil Framework for the Internet) and Law No. 13,709/18 (LGPD).

For all matters relating to the interpretation and fulfillment of this Agreement, the parties submit to the Central Forum of the Judicial District of Rio de Janeiro.

Translated by the author