

UNIVERSIDADE FEDERAL DO RIO DE JANEIRO
COPPEAD - INSTITUTO DE PÓS-GRADUAÇÃO E PESQUISA EM
ADMINISTRAÇÃO

JULIANNE CISNEIROS PERISSÉ

PATH TO SCALE: UNDERSTANDING HOW DIFFERENT ACTORS
SCALE SOCIAL INNOVATION

RIO DE JANEIRO

2021

JULIANNE CISNEIROS PERISSÉ

PATH TO SCALE: UNDERSTANDING HOW DIFFERENT ACTORS
SCALE SOCIAL INNOVATION

A thesis presented to the Instituto
COPPEAD de Administração,
Universidade Federal do Rio de Janeiro, as
part of the mandatory requirements for the
degree of Master of Sciences in Business
Administration (M.Sc.)

Advisor: Ariane Cristine Roder Figueira

RIO DE JANEIRO

2021

CIP - Catalogação na Publicação

P446p Perissé, Julianne Cisneiros
Path to Scale: Understanding how different
actors scale social innovation / Julianne Cisneiros
Perissé. -- Rio de Janeiro, 2021.
115 f.

Orientadora: Ariane Cristine Roder Figueira.
Dissertação (mestrado) - Universidade Federal do
Rio de Janeiro, Instituto COPPEAD de Administração,
Programa de Pós-Graduação em Administração, 2021.

1. inovação social. 2. social innovation. 3.
social impact. 4. impacto social. 5. scale. I.
Figueira, Ariane Cristine Roder, orient. II. Título.

JULIANNE CISNEIROS PERISSÉ

PATH TO SCALE: UNDERSTANDING HOW DIFFERENT ACTORS
SCALE SOCIAL INNOVATION

Master's dissertation presented to the COPPEAD Graduate School of Business,
Universidade Federal do Rio de Janeiro, as part of the mandatory requirements in order
to obtain the title of Master in Business Administration (M.Sc.).

Approved on 25/02/2021


Ariane Cristine Roder Figueira, D.Sc - Advisor
COPPEAD


Maribel Carvalho Suarez, D.Sc
COPPEAD


Julia Paranhos de Macedo Pinto, D.Sc
IE/UFRJ

Rio de Janeiro

2021

ACKNOWLEDGMENTS

The journey as a master student in COPPEAD brought me multiple opportunities for growth and development inside and outside of the classroom. The people I met and the experiences I had thanks to COPPEAD are memories I will always cherish. Thanks to COPPEAD, I was able to participate in multiple projects, study abroad and be part of a truly international environment.

I want to start by thanking my advisor, Professor Ariane Roder Figueira, for guiding me through this journey. Without her guidance, attention, and support always pushing me further, this dissertation would not be possible. I could not have found a better advisor to guide me through this experience. Thank you for encouraging me to follow a new research path, for all the insightful and provocative suggestions that helped me to continuously improve this work and the caring support throughout this journey. You are an inspiration inside and outside of the classroom.

I would also like to thank the members of the committee, who accepted the invitation to participate in this final step towards my master's degree. A special thanks to Professor Maribel Suarez, that introduced me to qualitative research, accompanied me during multiple intense and hands-on learning experiences in COPPEAD and accepted to be part of this committee.

I want to also thank Litro de Luz and Projeto RUAS, especially Laís Higashi, Vitor Belota, Larissa Montel and Joana Carvalho for the support and collaboration throughout this research and for their continuous effort to scale their impact and transform realities.

I wish to thank my friends from Cohort 2019 for the great memories and discussions inside and outside of COPPEAD. It was a pleasure to be part of the same class as you. Especially my ultimate partner, Flávio Crelier, that was with me since the first week and always came to rescue me whenever I needed.

I thank CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico), for the scholarship that allowed me to pursue my master's and for the completion of this dissertation.

Finally, I would like to thank my family that supported me throughout this journey, always encouraging me to do my best and make the most of the opportunities in front of me. I would never have gone this far if was not for your support.

Being part of COPPEAD, getting to work with its amazing staff, going through this experience with my colleagues and immersing myself in the social impact ecosystem for this research made me a completer and more qualified professional and a better person.

“The future depends on what we do in the present.”

Mahatma Ghandi

RESUMO

PERISSÉ, J.C. **Path to scale: understanding how different actors scale social innovation**. Rio de Janeiro, 2021 pp. 115 Dissertation (Master's Degree in Business Administration) - COPPEAD Graduate School of Business, Federal University of Rio de Janeiro, Rio de Janeiro, 2021.

Os desafios sociais ameaçam economias em todo o mundo. Em resposta a esses desafios, iniciativas são desenvolvidas para melhorar a vida das comunidades. O escalonamento do impacto social dessas iniciativas é considerado um dos temas mais desafiadores e críticos na área de inovação social e empreendimentos sociais. Através da criação de um modelo integrativo de análise combinando múltiplos fatores identificados na literatura organizados em seis dimensões principais é possível produzir insights úteis sobre como *diferentes atores escalonam a inovação social*. O Brasil tem apresentado um crescente número de inovações sociais com enorme potencial para reconstruir o tecido social, reduzir a desigualdade e promover um padrão de consumo e produção sustentável. Assim, se torna contexto com grande potencial para a pesquisa de inovação social. Através de uma análise comparativa da trajetória de duas ONGs brasileiras de diferentes categorias, Litro de Luz e Projeto Ruas, durante seus múltiplos esforços de crescimento, conseguimos proporcionar uma visão global do fenômeno de escalonamento. Identificando fatores internos e externos importantes para o processo de crescimento e as estratégias adotadas por essas organizações ao longo do seu crescimento.

Keywords: inovação social; ONG; escala; crescimento; impacto social, Litro de Luz, Projeto Ruas

ABSTRACT

PERISSÉ, J.C. **Path to scale**: understanding how different actors scale social innovation. Rio de Janeiro, 2021 pp. 115 Dissertation (Master's Degree in Business Administration) - COPPEAD Graduate School of Business, Federal University of Rio de Janeiro, Rio de Janeiro, 2021

Social challenges threaten economies worldwide. In response to these challenges, initiatives are developed to improve the lives of communities. The expansion of the social impact of these initiatives is considered one of the most challenging and critical themes in the area of social innovation and social enterprises. Through an integrative model of analysis combining multiple factors identified in the literature organized in six main dimensions it is possible to produce useful insights *on how different actors scale social innovation*. Brazil has presented a growing number of social innovations with enormous potential to rebuild the social fabric, reduce inequality and promote a pattern of sustainable consumption and production. Therefore, it presents itself as a context with great potential for the research of social innovation. Through a cross-case analysis of the trajectory of two Brazilian NGOs of different categories, Litro de Luz and Projeto Ruas, during their multiple growth efforts, we were able to provide a global view of the scaling phenomenon, identifying internal and external factors important to the growth process and the strategies adopted by these organizations throughout their growth.

Keywords: social innovation; NGO; scale; scaling; social impact, Litro de Luz, Projeto RUAS

LIST OF FIGURES

Figure 1 - Distribution of Brazilian NGOs according to area (2019)	3
Figure 2 – Multifactor Framework for Scaling Social Impact	21
Figure 3 - Articles per year (1996-2020)	29
Figure 4 – Selected articles per year (1996-2020)	30
Figure 5 – Selected documents per source	31
Figure 6 - Distribution of the selected documents per dimension	32
Figure 7 - Replication approach to multiple-case studies	34
Figure 8 - Data Analysis Framework	41
Figure 9 - Litro de Luz Social Media Pages	51
Figure 10 - Location of Litro de Luz's operations throughout Brazil	55
Figure 11 - Territories with no access to electricity	57
Figure 12 - Post from the Projeto RUAS Instagram Account from April 2015	60
Figure 13 - Organizational Structure Projeto RUAS	64
Figure 14 - Projeto RUAS Strategical Map	66
Figure 15 – Branching Pathway	82
Figure 16 – Dissemination Strategy	83

LIST OF TABLES

Table 1 - Categories of Scaling Impact.....	9
Table 2 - Relation between Dimensions and Propositions	24
Table 3 - Case Study Protocol	35
Table 4 - Data Sources	39
Table 5 - Litro de Luz Operation Growth.....	55
Table 6 - Classification of Scaling Initiatives	72
Table 7 - Future Research Opportunity	86

ABBREVIATIONS

ANEEL - Agência Nacional de Energia Elétrica

IBGE – Instituto Brasileiro de Geografia e Estatística

IPEA – Instituto de Pesquisa Econômica Aplicada

FGV – Fundação Getúlio Vargas

NGO – Non-Governmental Organization

OSC – Organização da Sociedade Civil

RR – Recupera e Reintegra

UN – United Nations

UnB – Universidade de Brasília

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Contextualization of the research topic	2
1.2	Importance of the research.....	4
1.3	Research framework.....	5
2	LITERATURE REVIEW	6
2.1	Scaling impact.....	6
2.2	Barriers and Challenges to Scaling.....	9
2.3	Resources and Capabilities for Scaling	12
2.3.1	Organization Resources	12
2.3.2	Environmental Conditions	14
2.3.3	Actor Characteristics	16
2.4	Strategic Pathways	17
2.5	Integrative Analysis	20
3	METHODOLOGY	26
3.1	Research Questions	26
3.2	Research Design	27
3.2.1	Theoretical	28
3.2.2	Empirical	32
3.3	Research scope	36
3.3.1	Case selection.....	36
3.3.2	Data Collection.....	38
3.3.3	Data Analysis	40
4	CASE STUDIES	42
4.1	The Brazilian Context for Social Innovation	42
4.2	Litro de Luz	43
4.2.1	Creation and Early Operation of “Litro de Luz” in Brazil (2013-2015)	44
4.2.2	Change in Leadership and Expansion (2016-2020)	48
4.2.3	Vision for the Future	56

4.3	Projeto RUAS	58
4.3.1	Creation and Early Operation (2014 – 2017)	58
4.3.2	Strategic Planning and the development of a new structure to support growth (2018 – 2020)	63
4.3.3	Vision for the future	70
5	DISCUSSION AND CROSS-CASE SYNTHESIS	71
5.1	Scaling Impact	71
5.2	Barriers	74
5.3	Organization Resources	75
5.4	Environmental Conditions	78
5.5	Actor Characteristics	79
5.6	Strategic Pathway	80
6	CONCLUSION AND RECOMENDATIONS	83
6.1	Limitations and Research Opportunities	85
7	REFERENCES	87
	ANNEX 1 – INTERVIEW SCRIPT	98
	ANNEX 2 – TABLE OF RELATION BETWEEN INTERVIEW SCRIPT AND DIMENSIONS OF ANALYSIS	101

1 INTRODUCTION

Social challenges threaten economies worldwide. In response to those challenges, individuals, businesses, non-profit organizations, the academia, and governments develop new ideas for improving the lives of the communities around them (Westley & Antadze, 2010). With around 10% of the world's population living in extreme poverty, around 800 million people undernourished and 25% of urban residents living in slum-like conditions (Sachs *et al.*, 2019) there is a high demand for solutions to social problems across the world, and consequently an increasing interest in research on the topic of social innovation (Agostini *et al.*, 2017).

The European commission's project 'Social Innovation: Driving Force of Social Change' (SI-DRIVE), which investigated 1005 cases of social innovation worldwide, described social innovation as an initiative for change in social practices that contributes to limiting social problems or satisfying needs of specific societal actors (Howaldt *et al.*, 2016). Social initiatives typically start small and localized, and can remain small, even when they are successful (Uvin, Jain & Brown, 2000), because actors may choose to focus on serving specific local communities.

Scaling social impact is considered one of the most challenging and critical topics within the area of social innovation and social enterprises (Uvin & Miller, 1996; Dees *et al.*, 2004; Cannatelli, 2017; Islam, 2020a). For the past years, academia has discussed the urgency of maximizing the impact of successful innovations by spreading them to more contexts and expanding them geographically (Dees *et al.* 2004; Bloom & Smith, 2010; Bradach, 2010). The topic of scaling social impact is relevant from both practitioner and governmental and regulatory perspectives as a solution-oriented strategy promoting higher efficiency in the social sector (Bradach 2010). Attracting multiple interest into the subject of how social innovation can be scaled.

Research on scaling social impact has addressed multiple research questions (Cannatelli, 2017; Islam, 2020a). Researchers have investigated the definition of scaling impact (e.g., Dees *et al.*, 2004; Islam, 2020a), the processes (e.g., Desa & Koch, 2014) , the drivers (e.g., Bloom & Chatterji, 2009; Scheuerle, & Schmitz, 2016; Gauthier, Ruane,

& Berry, 2019), the challenges (e.g., Bradach, 2003; Deiglmeier, & Greco, 2018), the effect of contextual conditions (e.g., Smith & Stevens, 2010; Corner & Kearins, 2018), the organizational models (e.g., Bacq & Eddleston, 2018), the strategies (e.g., Uvin & Miller, 1996; Lyon & Fernandez, 2012; Westley *et al.*, 2014), the actor's characteristics (e.g., Bacq *et al.*, 2015; Rangan & Gregg, 2019), the motivation (e.g., Tykkyläinen *et al.*, 2016; Lunenburg, Geuijen, & Meijer, 2020), and the level of control of the organization (e.g., Smith, Kistruck & Cannatelli, 2016). Despite such advancements on scaling social impact as a research topic this does not mean that it has become a well understood phenomenon or an easy process for practitioners to manage (Uvin, Jain & Brown, 2000). Therefore, the present work proposes an integrative framework based on theoretical propositions that emerged from the existing literature and apply the identified variables to perform a cross-case analysis of two Brazilian NGOs.

1.1 Contextualization of the research topic

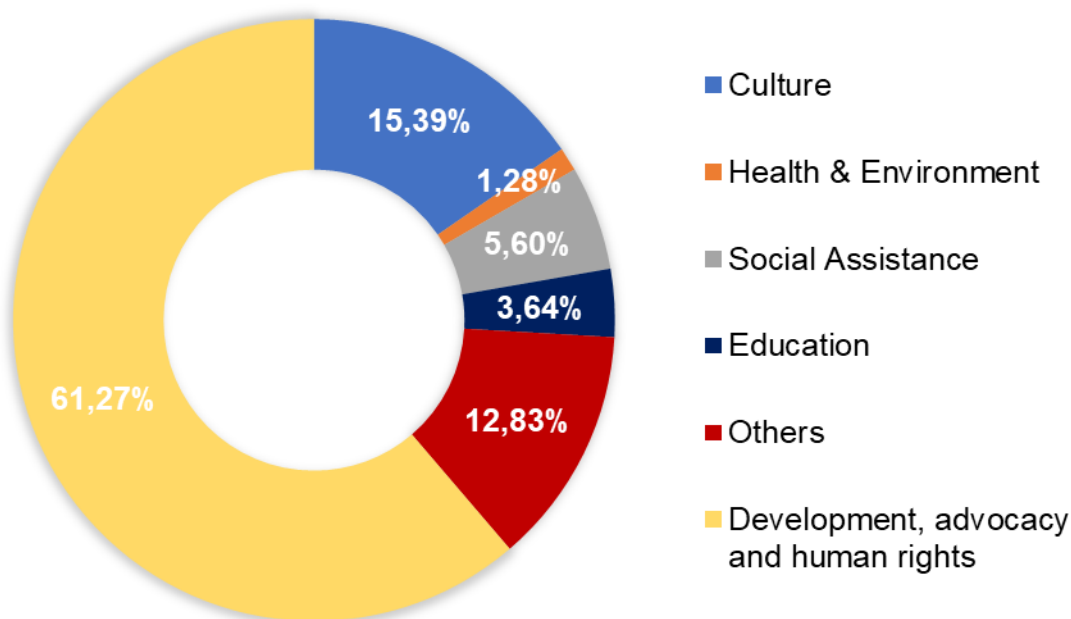
Brazil is the fifth largest country in the world in both population and land area, with 209 million people and 8.300.000 km² (World Bank, 2018). Brazil's developments prospects attract interests not only due to its size and natural resources but also because it remains today one of the world's most unequal countries, with the income of 5% of Brazilian richest people being the same as the income of the remaining 95 percent (Oxfam, 2020).

The distribution of economic opportunities and access to basic social services show the deep and persistent inequalities in the country (World Bank Group, 2016). According to IBGE, in 2019, 25% of Brazil's population was below the poverty line, around 50 million people were living with less than US\$5,50 a day, and 6% were below the extreme poverty line, representing over 11 million people living with less than US\$1,90 a day. Brazil's inequality goes beyond income distribution, since over 21% of the population lived in inadequate housing and only 63% of the population had access to water, sanitation, and waste management simultaneously in 2019 (IBGE, 2020).

The Brazilian context also counts with poor public management of resources and corruption scandals, a lack of access to basic public services and rights, such as

education, technology, and security (Cippola & Afonso, 2018) becoming a very interesting context for the development of social innovation in response to unmet social needs. The social innovation ecosystem in Brazil has been centered on NGOs and foundations since the period of democratization in 1985, that fill in the gaps left by the government in areas like education, health, and poverty alleviation (Anastacio, Filho & Marins, 2018). According to IPEA (Lopez, 2018) there are 781.921 NGOs active in Brazil, from which over around 208.000 are religious organizations and 22.000 are professional associations. The remaining organizations work mostly in development, advocacy and human rights, culture, education, social assistance and health and environment, as portrayed in Figure 1. More than 40% of the organizations are located in the southeast region of the country, over 80% do not have any employees and 7% have up to two employees.

Figure 1 - Distribution of Brazilian NGOs according to area (2019)



Source. Mapa das Organizações da Sociedade Civil, 2020

According to Cippola and Afonso (2018) social innovation in Brazil originates from both the urban middle class who have access to knowledge and resources and groups originated from low-income population and peripheral areas, that develop their social

innovation initiatives without expert guidance or government support. The biggest strength of those groups comes from their own creative and entrepreneurial skills alongside their proactive attitude, following an entrepreneurial bricolage logic fitted to a resource constraint environment (Janssen, Fayolle and Wuillaume, 2018) like Brazil. The growing number of social innovations in Brazil have enormous potential to rebuild the social fabric, reduce inequality, and promote a sustainable consumption and production pattern (Cippola & Afonso, 2018). However, despite being such a potential context for social innovation research, the phenomenon of social innovation in Brazil is still understudied in both theoretical and practitioner's literature (Bataglin, 2017; Anastacio, Filho & Marins, 2018).

1.2 Importance of the research

The literature regarding scaling social impact is still very fragmented. Most works focus only on one aspect of the process and are unable to provide a comprehensive overview of the phenomenon. The multidimensional nature of the topic of scaling social impact combined with the fragmented literature and diversity of terms, concepts, and definitions (Van Lunenburg, Geuijen & Meijer, 2020) prevent the development of generalizable knowledge and the formulation of articulated theories and hypothesis. The process of social innovation is dynamic, and the result of multiple adaptations and adjustments resulted from the exchange and participation of the multiple stakeholders involved in the process (Bataglin, 2017).

Thus, combining multiple factors of the literature together can yield useful insights into *how different actors scale social innovation*. Drawing on a systematic review of the existing literature on scaling social impact up to 2020, the aim of this dissertation is to complement the literature with an updated integrative framework of analysis of the phenomenon that can allow practitioners and researchers to better understand the phenomenon and identify the potential for scaling or define strategies for achieving higher impact that fit their objectives and competencies. It also allows the identification of areas of collaboration and development with potential partners, like governments, foundations, and the academia. Different than other existing frameworks, the proposal of this work is

to follow a non-linear approach to scaling, treating all factors as both drivers and limitations of the process. When treating the phenomenon of scaling as a linear step by step process, the literature fails to take in consideration the multiple logics (Corner & Ho, 2010; Fisher, 2012; Weerakoon, Gales & McMurray, 2019; Van Lunenburg, Geuijter & Meijer, 2020) that can drive and guide the scaling process.

Research focused on social innovation developed in Brazil is still scarce (Bataglin, 2017; Anastacio, Filho & Marins, 2018). By developing case studies of Brazilian organizations with relevant size and unique offerings that weren't studied previously regarding their scaling endeavors complements the existing literature review by adding relevant examples to the existing theoretical literature.

1.3 Research framework

The present work proceeds as follows. First, a systematic review of the existing literature was conducted to identify the key factors involved in the phenomenon and advance theoretical propositions based on the data obtained from the literature review. The six dimensions and ten propositions are presented throughout chapter 2. In section 2.5, dimensions identified from the literature review were synthesized in an integrative framework. In chapter 3, the methodological process of both theoretical and empirical sections of this work are described in detail.

After the theory development, a multiple case study of two existing Brazilian NGOs that have successfully scaled their impact is presented following a replication approach. In the first section of chapter 4, the Brazilian social innovation ecosystem that is the common context of both case studies is presented. In the following sections of chapter 4, each case study is presented independently.

In chapter 5, the cases were analyzed using the theoretical propositions previously developed and compared to draw cross-case conclusions. The objective of this two-step approach is to develop theoretical propositions and fill in part of the knowledge gap in the social innovation literature, while also adding examples and complementing the literature

on social innovation in Brazil. Finally, in chapter 6 conclusions, limitations and suggestions for future research were presented.

2 LITERATURE REVIEW

According to Van Lunenburg, Geuijen and Meijer (2020), a literature review of scaling social impact is complicated due to the variety of terms and concepts that are used to refer to the same or similar processes, in different areas. Throughout the review process described in detail in section 3.2.1, we analyzed 67 documents, among articles and books, including in the research documents that focused on scaling, growth, or expansion of social innovation or social enterprises. The selected documents encompassed research around the definition, process, strategies, case studies, requirements for scaling, challenges, and limitations. After reading, the documents were coded through a descriptive process and organized into four central categories that emerged from the analysis of the existing literature: (1) scaling impact, (2) barriers, (3) resources and capabilities for scaling, and (4) strategic pathways. Each of those concepts involve existing factors and decisions to be made by the actors and organizations in the process of scaling their impact.

2.1 Scaling impact

Dees, Anderson and Wei-skillern (2004) describe scaling impact as not just serving more people and communities, but also about serving them well. Building on that description, Desa and Koch (2014) developed two categories of scaling impact: ‘breadth impact’ and ‘depth impact’. Breadth impact refers to the quantitative growth of impact, it describes any expansion, geographic or not, that increases the number of people benefiting from the solution. Depth impact, on the other hand, refers to a qualitative improvement in terms of the effectiveness of addressing the social issue.

Westley *et al* (2014), identified two different types of scaling: scaling out and scaling up. Scaling out is related to breadth impact, as it englobes any process of expansion, replication or dissemination that increases the number of people or communities impacted. Scaling up, also relates to breadth impact as it increases the number of people

impacted, however this refers to institutional changes, as it is achieved through changing policies, rules, and laws. Moore, Riddell and Vocisano (2015) included a third category to the classification called scaling deep, based on a more permanent impact achieved through changes in cultural values, beliefs, and relationships. Scaling deep is a combination of both breadth and depth impact, as it addresses both quantitative and qualitative improvements.

A more detailed taxonomy of scaling impact was developed by Uvin and Miller (1996) with four different categories of scaling impact: quantitative, functional, political, and organizational. The first type, quantitative, can be compared to breadth impact and scaling out, it includes geographic expansion, increases in membership base, or supported organizations. The second one, functional, describes the expansion in number and type of programs and activities in the same community. In this category the impact increases not in terms of quantity of people, but in depth. Political, the third category, is just like scaling up, it focuses on increasing the impact through changing laws and policies. The fourth and last category is organizational scaling, that is defined as developing internal capabilities that result in improvements in the effectiveness and efficiency of their activity.

Later, Uvin, Jain and Brown (2000) presented two paradigms of scaling, the old one, where scaling comes from expansion and the organizations become larger, more efficient and professionally managed and a new paradigm of multiplication and mainstreaming in a more indirect manner through spinning off organizations, sharing innovations, creating alternative knowledge, and influencing other social actors. The old paradigm is limited to an operational growth, while the new paradigm presents an ecosystem growth. These two paradigms are not exclusive, and actors can choose to move forward along different lines simultaneously.

Uvin, Jain and Brown (2000) then adjusted the previous taxonomy to include ecosystem growth. The patterns became expanding coverage and size, when the organization become larger, increasing activities, with the expansion and diversification of the activities undertaken by the organization, broadening indirect impact, when the focus

is in affecting the behavior of other actors and reaching the target beneficiaries through the activity of others, and enhancing organizational sustainability, where the focus is developing organizational capabilities and increasing the efficiency, reducing overall uncertainty and achieving a sustainable stable position.

Throughout this work we will define scaling impact as any expansion in the number of people affected by a social innovation or any increase in the impact of a social innovation in the same group of people. Therefore we will treat the extent to which an actor can successfully scale a social innovation not only in terms of its size, but also in terms of the number of spin-offs created, and the number of projects that have been developed or taken over by other actors (Uvin, Jain & Brown, 2000; Bradach, 2010), that way we will encompass an integrative definition of scaling impact, like the one developed by Islam's (2020a: p.5).

Scaling social impact is an ongoing process of increasing the magnitude of both quantitative and qualitative positive changes in society by addressing pressing social problems at individual and/or systemic levels through one or more scaling paths.

In order to develop an integrative analysis of the concept of scaling impact we will and summarize the classifications in the existing literature in three categories as presented in Table 1: qualitative, quantitative scaling through ecosystem growth and quantitative scaling through operational growth. Qualitative scaling encompasses every expansion in the scope of the activities of the organization increasing the longevity, areas, and level of impact. Quantitative scaling will focus on increasing numbers of impacted communities and people. That type of scaling can take place in two ways, the first one happens when the organization increases their impact without expanding their own activity (ecosystem growth), the other one by increasing the size of the operation, assisting more people or opening more locations (operational growth).

Table 1 - Categories of Scaling Impact

	Desa and Koch (2014)	Westley et al. (2014) Moore, Riddell and Vocisano (2015)	Uvin and Miller (1996)	Uvin, Jain and Brown (2000)
Qualitative scaling	• Depth Impact	• Scaling deep	• Functional	<ul style="list-style-type: none"> • Increasing activities • Enhancing sustainability
Quantitative scaling: ecosystem growth	• Breadth Impact	<ul style="list-style-type: none"> • Scaling out • Scaling up 	• Political	<ul style="list-style-type: none"> • Enhancing sustainability • Broadening indirect influence
Quantitative scaling: operational growth	• Breadth Impact	• Scaling out	<ul style="list-style-type: none"> • Quantitative • Organizational 	<ul style="list-style-type: none"> • Expanding coverage and size • Enhancing sustainability

Note. Organized by the Author

Understanding what type of growth is achieved through a specific strategy, what type of scaling can be achieved with an organization's existing resources or what sort of growth is desired by the actor (Blundel & Lyon, 2015) is key to understand the scaling process. Based on that, we advance the following proposition:

Proposition 1. The category of scaling impact achieved can determine the process of scaling impact or be limited by the process.

2.2 Barriers and Challenges to Scaling

There are several obstacles and barriers identified in the existing literature that can limit or prevent social innovations from scaling. These constraints can be both internal and external to the organization. The main barriers of the scaling process identified are related to the limited access to resources, mainly financial and human resources, knowledge gaps, fragmented ecosystem, legal restrictions or insufficient political support, the challenge of ensuring quality while scaling (Mulgan, 2007; Caulier-Grice *et al.*, 2010; Vickers & Lyon, 2014; Moore *et al.*, 2015; Howaldt *et. al.*, 2016; Walske & Tyson, 2015;

Deiglmeier & Greco, 2018, Rayna & Striukova, 2019), and avoid drifting from the core mission of the initiative (Siebold, Günzel-Jensen & Müller, 2019; Ometto *et al.*, 2019).

In the European commission's project 'Social Innovation: Driving Force of Social Change' (SI-DRIVE) that investigated 1005 cases of social innovation initiatives worldwide, Howaldt *et al.* (2016) identified the lack of financial resources as a barrier for 39,4% of the initiatives, lack of human resources for 14% of the initiatives, knowledge gaps for 13,2%, the fragmented ecosystem for 17,4%, legal restrictions for 12,6% and lack of political support for 10,7%.

The first main barrier, the limited access to resources is related not only to the absence of funds or capable personnel in the organization, but also the scarcity of such resources in the environment. Actors must find people with the right mindset and capabilities while considering budget constraints and competing with other organizations for the available financial resources (Frumkin, 2006; Deiglmeier & Greco, 2018; Han & Shah, 2019; Rayna & Striukova, 2019). Finding the right people to occupy positions depends on two distinct and time-consuming activities: (1) proper selection, and (2) training and socialization. The first requires that the organization has a clear understanding of the skills required while the second, training and socialization will be used to fill any skill gaps and to share the culture of the program with the new personnel (Bradach, 2003).

Funding is a central issue and can become a barrier even for long lasting and established organizations. The central challenges are securing long term funding and financial support for overhead expenses, especially for scaling processes (Caulier-Grice *et al.*, 2010; Deiglmeier & Greco, 2018). There are many reasons that motivate the lack of long-term funding, donor fatigue, the phenomenon of diminished response by donors because the problems never seem to diminish, the belief that equity requires splitting donations among different institutions or causes and an hesitance to make "big bets" (Bradach, 2003). Also, most of the funding, specially from institutions, governments and foundations tend to be restricted to specific projects and programs, not including overhead expenses (Eckhart-Queenan *et al.*, 2019).

Knowledge gaps describe the lack of professional or expert knowledge, experience and know-how, difficulties to get access to required information or inefficient market information and missing technological possibilities (Howaldt *et al*, 2016). Knowledge gaps are a challenge for daily operations but become a larger barrier when it comes to scaling. The scarcity of information associated with the difficulty for actors to access that information can prevent the process of scaling or, at least, increase its complexity (Caulier-Grice *et al.*, 2010).

The fragmented ecosystem can also be described as an absence of networks intra and intersectoral. Engaging, collaborating, and coordinating actions with various actors from the private, nonprofit, and public sectors is of huge value. These networks potentialize organizations by legitimating their work, allowing them to share experiences, know-how and resources, and learn best practices at local, national and international level (Mulgan, 2007; Caulier-Grice *et al.*, 2010; Howaldt *et al*, 2016; Deiglmeier & Greco, 2018).

Legal restrictions and insufficient political support are external factors that can impose financial and bureaucratic barriers for the organization. Political support can help actors support their scaling initiatives, especially when there is a concern from the government in the social issue addressed by the organization (Caulier-Grice *et al.*, 2010; Howaldt *et al*, 2016).

Ensuring quality while scaling is a key concern, especially when the scaling process occurs with less control of the original organization (Bradach, 2010; Asemota & Chahine, 2017; Giudici *et al.*, 2020). The legitimacy of a social innovation is determined by the perception of accumulated benefits and values (Scheuerle & Schmitz, 2016), lower quality can damage the perception of the whole organization, harming their overall reputation, credibility, and legitimacy, harming the organization's ability of fundraising and losing partners. The core of scaling impact is to serve well more people and communities (Dees *et al.*, 2004), therefore, scaling the size or coverage of the operation is only valid if it maintains or increases the value delivered to the multiple stakeholders (Siebold, 2020).

Proposition 2. Internal and external barriers, related to the limited access to resources, knowledge gaps, fragmented ecosystem, legal restrictions, or insufficient

political support, ensuring quality and mission-drifting can prevent or limit scaling processes.

Organizations can overcome the previous barriers by investing in networks, exchanging knowledge, diversifying their funding, investing in communication to raise awareness, and consequently acquiring more funding, volunteers, public and political support (Howaldt *et al.*, 2016). In the next section, we will focus on the resources and capabilities that will allow organizations to surpass the existing barriers and challenges and pursue their scaling initiatives.

2.3 Resources and Capabilities for Scaling

Previous literature has identified multiple resources and capabilities necessary for organizations to scale their impact. We will divide them in three categories: (1) organization resources, (2) environmental conditions and (3) actor characteristics.

2.3.1 Organization Resources

First, to discuss the mobilization of resources, a key challenge in scaling social enterprises (Corner & Kearins, 2018) we are going to use the SCALERS model developed by Bloom and Chatterji (2009). It describes seven organizational capabilities that stimulate successful scaling processes based on different situational contingencies. These seven drivers are: staffing, communicating, alliance-building, lobbying, earnings-generation, replicating and stimulating market forces, creating the acronym SCALERS.

Staffing describes the effectiveness of the organization at filling its labor needs, it encompasses both paid and voluntary workers, and measure how much of the necessary skills and capabilities required from the staff to support the scaling process are available in the organization. *Communicating* is related to the ability of the organization to persuade key stakeholders of the importance of the scaling process, this driver measures the effectiveness of the communication resulting in support by both internal and external stakeholders. Social ventures have a more complex stakeholder universe than commercial ventures, turning communication into a central factor for scaling (Gauthier,

Ruane, & Berry, 2019). *Alliance Building* refers to the to the ability of the organization to forge partnerships, coalitions, joint ventures, and other linkages. *Lobbying* defines the ability of the organization to advocate for government actions that may that support the organization's social change efforts. *Earnings-generation* describe the ability of the organization to fund its activities. *Replicating* is related to the effectiveness with which the programs and initiatives can be replicated. *Stimulating Market Forces*, measures the ability of the organization in creating incentives and encouraging people or institutions to pursue private interests while also serving the public good.

Multiple researches have built on these drivers trying to determine their relevance in the process of scaling social impact and how organizations can develop such capabilities (Bloom & Smith, 2010; Lyon & Fernandez, 2012; Walske & Tyson, 2015; Gauthier, Ruane & Berry, 2019; Han & Shah, 2019; Zainol *et al.*, 2019). In a quantitative analysis earnings generation has a relatively stronger effect than the other SCALERS, however when combined SCALERS explained 38% of the variance of the model in scaling of social impact (Bloom & Smith, 2010). Earnings generation, replicating, and stimulating market forces presented a positive strong relationship with scaling social impact in a quantitative analysis on social initiatives from Malaysia (Zainol *et al.*, 2019). Walske and Tyson (2015) identified in their study made with eight social enterprises that grew exponentially in their first 5 years, that financial and human capital, media exposure, a combination of key partnerships and direct contact with clients, were relevant factors that led to the scaling of those initiatives.

Media exposure and social media presence help initiatives gain credibility, attract investors and partners, and positively change stakeholders' behaviors and attitudes towards the organization (Walske & Tyson, 2015; Hue, 2017). Bradach (2003) highlighted how the visibility provided by public figures and media exposure has helped many social innovations scale, like Habitat for Humanity, an American NGO founded in 1976 focused on building affordable homes that grew with Jimmy Carter's involvement since 1984, developing a partnership and a special event that has attracted funds and volunteers for 35 years (Habitat for Humanity, 2019), and STRIVE, an NGO that since 1984 has provided

job training skills and assisted over 75.000 people find a job (STRIVE, 2020), that gained visibility after being featured in the popular television show, 60 minutes in 1997.

After the analysis of the existing literature regarding organization resources required for scaling, we identified four main concepts: (1) organizational structure, that encompass all human resources and internal processes; (2) communication, including all media and the relationship with the multiple stakeholders; (3) funding and (4) network, that combines all relevant connections, public and private, made in the ecosystem. Building on those studies we advance the following propositions:

Proposition 3a. The organizational structure, that encompass all human resources and internal processes, of the organization can limit or direct the scaling initiative.

Proposition 3b. The communication capability of the organization, including all the media presence and the relationship with the multiple stakeholders can limit or direct the scaling initiative.

Proposition 3c. The funding capability of the organization can limit or direct the scaling initiative.

Proposition 3d. The network of the organization, that combines all relevant connections, public and private, made in the ecosystem, can limit or direct the scaling initiative.

2.3.2 Environmental Conditions

Beyond the organization's resources, the role of the external context is also a key aspect of the scaling process. Social organizations are subject to environmental conditions that can stimulate or constrain their growth (Bradach, 2010). Language barriers, cultural differences and attitudes, public acceptance, availability of resources, conditions of the natural environment, social economic conditions, and political and economic crises shape and alter an organization action and strategy (Easter & Conway Dato-On, 2015; Howaldt *et al.*, 2016).

The scarcity of social capital, financial and human resources in the environment and the competition for those resources influence the strategical choices and affect the sustainability of the organization and its social impact (Weerawardena & Mort, 2006; Bloom & Smith, 2010; Canatelli, 2017; Islam, 2020b; Van Lunenburg, Geuijen & Meijer, 2020). The relationship with the external environment also allows the organization to seek opportunities for improvement and change, experiment and adapt their innovations to different cultural and social economical contexts (Grant & Crutchfield, 2007; Corner & Kearins, 2018; Rayna & Striukova, 2019).

The geographic area and its conditions can influence the development of social networks, including the relationship with the community and consequently the target audience. These relationships can be limited by the environment and can affect not only the selection of the scaling method but also the access to the actors with the required social power to allow the operation of the social initiative (Mair & Schoen, 2007; Smith & Stevens, 2010). The limitations of the geographic area become even more challenging when a social initiative is scaled to new locations, since an organization with more embedded community relationships can more effectively tailor scaling strategies that fit the environment (Smith & Stevens, 2010; Guha, 2019).

The importance of the social economical and geographical context and the proximity with the communities targeted by the organizations has increased the interest in social innovation and social entrepreneurship research in the context of emerging countries (Rao-Nicholson, Vorley & Khan, 2017). Emerging countries counts with a scarcity of skilled human capital, resources and funding, a lack of support from the government to NGOs and social initiatives, providing a rigid institutional context and even placing restrictions on overseas financing and a highly uncertain environment (Weerawardena & Mort, 2006; El Ebrashi, 2018; Guha, 2019; Maseno & Wanyoike, 2020). The context of developing countries provides a constrained environment with a high demand for social change with highly diverse geographical contexts that requires organizations to invest in building local networks and acquiring local insights that allow them to adapt, customize and diversify their offerings in order to produce locally

meaningful impact (Braund & Schwittay, 2016). Based on the existing literature on the influence of the external context we advance the following propositions:

Proposition 4a. Environmental dynamics and conditions can constrain or direct scaling.

Proposition 4b. Organizations must adapt, customize, and diversify their offerings when changing geographic contexts.

2.3.3 Actor Characteristics

The key factors of scaling go further than the organization and the environment and include the actor characteristics. The ability of entrepreneurs to identify and evaluate opportunities is a determinant factor for both starting-up and scaling social innovation. Moreover, scaling impact can sometimes be perceived as peripheral, or even a distraction from the core objective of the organizations, (Uvin, Jain, Brown, 2000; Bradach, 2010; Perrini, Vurro & Costanzo, 2010), and consequently, the individual decision-making path and motivation appear as requirements for the expansion process (Ćwiklicki, 2019).

Consequently, actor characteristics such as (1) the enterprise, that is the willingness to take on risks in order to obtain gain and, consequently the willingness to scale (Penrose, 1959; Tykkyläinen *et al.*, 2016), alongside their (2) desire of control (Smith & Stevens, 2010; Lyon & Fernandez, 2012; Smith, Kistruck & Cannatelli, 2016), (3) the balance between their economic and the social logic (Braund & Schwittay, 2016; Siebold, Günzel-Jensen & Müller, 2019), their (4) entrepreneurial skills, like the ability to make use and pursue scarce resources (Bacq et al. 2015), to learn, adapt and adjust (Rangan & Gregg, 2019) and their (5) leadership abilities (Mastrangelo, Benitez, & Cruz-Ros, 2017; Han & Shah, 2019) are also relevant for the scaling process (Uvin, Jain & Brown, 2000; Scheuerle & Schmitz, 2016; Van Lunenburg, Geuijen & Meijer, 2020).

The actor has a central role in the scaling process, and, consequently is the most studied topic of the social innovation literature. The level of enterprise of the actor (Penrose, 1959; Tykkyläinen *et al.*, 2016) can be the main driver of the scaling process,

due to a moral urgency to scale their initiatives (Smith, Kistruck & Cannatelli, 2016) in order to achieve a wider and deeper impact on society (Bloom & Smith, 2010) or become a huge barrier for the process, if the actor decide to focus on one service offering to an specific local community, instead of broadening or expanding its impact. Social solutions can even scale their impact indirectly, spreading to other individuals or organizations, whether as an effect of a deliberate strategy of dissemination by the originating actor, leveraging on its network and other entrepreneurial skills or through a natural process of diffusion (Westley & Antadze, 2010).

The actor will also determine the logic of the whole scaling process. Scaling social impact can follow different logics depending on the actor's characteristics (Corner & Ho, 2010; Fisher, 2012; Weerakoon, Gales & McMurray, 2019). The main logics are causation, effectuation (Sarasvathy, 2001) and entrepreneurial bricolage (Baker & Nelson, 2005). The causation logic follows the traditional market expansion logic, where the decision to scale is made first, and then the focus shift to developing and acquiring the necessary resources.

However, in a resource constraint environment like the ones where social innovation tend to be implemented, (Janssen, Fayolle and Wuillaume, 2018) the causation logic might not be the most adequate. Both the effectuation logic (Sarasvathy, 2001) and entrepreneurial bricolage (Baker & Nelson, 2005) leverages on the actor's entrepreneurial abilities, especially his abilities to identify opportunities and make use and pursue scarce resources (Bacq et al. 2015). After the review of the existing research on the actor characteristics we can advance the following proposition:

Proposition 5. The characteristics of the actor, like his enterprise, desire of control, balance of economic and social logic, entrepreneurial and leadership skills can guide or limit the scaling process.

2.4 Strategic Pathways

There are multiple strategies that can be used to scale social impact, each one of them allow a different degree of coordination and control and required a certain amount

and types of resources (Dees *et al.*, 2004; Mulgan, 2007; Westley & Antadze, 2010; Lyon & Fernandez, 2012; Westley *et al.*, 2014). These strategies include the dissemination and replication of general ideas, principals and programs by different actors, an ecosystem growth, the organic growth of the activity of a single actor, an operational growth, and the expansion of activities through both partnership and in-house developments. The ones that require the least amount of resources are also the ones where the organization has less control of the process (Dees *et al.*, 2004; Mulgan, 2007; Westley & Antadze, 2010; Westley *et al.*, 2014), but are also the ones that can achieve higher impact (Frumkin, 2006; Lyon & Fernandez, 2012).

Dees, Anderson and Wei-skillern (2004) argue that scaling impact can be achieved by spreading a principle (dissemination), replicating a program (affiliation), or scaling an organization (branching). Dissemination is the simplest strategy, normally the least resource intensive and with the lowest amount of control from the original actor. It consists of two approaches: advocacy and network expansion.

Advocacy consists of the actor sharing information and encouraging learning, that way other actors are impacted indirectly generating new activities. Network expansion has a little more control and requires more resources as it counts with a relationship between the multiple actors involved in order to share good practices and information, and in some cases even offer specific trainings and evaluations (Uvin & Miller, 1996; Frumkin, 2006; Mulgan, 2007; Bradach, 2010; Westley & Antadze, 2010; Lyon & Fernandez, 2012; Narang *et al.*, 2014; Westley *et al.*, 2014).

Affiliation, on the other hand, requires more control and coordination from the original actor and a systematized program that can be replicated by different actors (Westley *et al.*, 2014). In this intermediate level of control and coordination we can include licensing and social franchising as pathways of replication. Licensing turns a program into a product that can be shared and its use by other authorized. Social franchising not only allows the use of the solution and operational processes but also the brand, the franchisor provides detailed and continuous guidance to the franchisee, in a contractual agreement

to maintain performance and quality standards related to both processes and outcomes (Mulgan, 2007; Asemota & Chahine, 2017; Giudici *et al.*, 2020).

Licensing and Franchising allows the initial actor to apply indirectly the same business model multiple times locally or globally (Narang *et al.*, 2014), while distributing the risk and the financing, however, the pricing of knowledge or a service can reduce its spread and consequently its social impact (Murray, Caulier-Grice & Mulgan, 2010).

Branching consists of expanding the organization in terms of coverage and offerings. In order to expand its coverage, the actor can acquire other organizations, increase its capacity locally or expand to different sites. Expanding offerings consists of diversifying the services provided to maximize the social impact of the existing capacity. Branching is the most resource consuming pathway and, consequently, the one where the actor maintains more control over the innovations and programs. (Uvin & Miller, 1996; Frumkin, 2006; Mulgan, 2007; Murray, Caulier-Grice & Mulgan, 2010; Westley & Antadze, 2010; Lyon & Fernandez, 2012; Narang *et al.*, 2014; Westley *et al.*, 2014).

Despite of the different resources needed, and amount of control maintained by the organization, none of the pathways are mutually exclusive, therefore, is possible for an actor to move forward along different strategies simultaneously or successively (Uvin, Jain & Brown, 2000). In Bocken, Fil and Prabhu's (2016) cross-case analysis of three large-scale social businesses from Bangladesh and India, indicated that the organizations had used almost all the different scaling methods at one point during their 20 years of operation. This shows how the different strategies can be complementary, being necessary for organizations to mix and match different pathways to successfully scale their impact.

Proposition 6. The strategic pathway selected by an organization is related to the combination of existing resources of the organization, the characteristics of its leader and the environment.

2.5 Integrative Analysis

Scaling social impact becomes even more complex as the process can follow different logics (Corner & Ho, 2010; Fisher, 2012; Weerakoon, Gales & McMurray, 2019): causation, effectuation (Sarasvathy, 2001) and entrepreneurial bricolage (Baker & Nelson, 2005). When following the causation logic, organizations have the effect, in this case, the scaled impact, as given and focus on defining and developing the means to achieve the effect desired. Using the effectual logic, actors begin with their means: (1) who they are – their traits and abilities, (2) what they know – their education, training, and experience and (3) who they know – their social, professional and family networks. Leveraging on their human, intellectual, and social capital, they then elaborate and select possible effects (Sarasvathy, 2001). An example of an actor that uses effectual logic is given by Vansandt, Sud and Marme (2009) is Ashoka, that since its beginning has leverage on its knowledge, awareness, and networks to scale their impact.

Entrepreneurial bricolage is accomplished by solving problems as they emerge, with the available means instead of focusing on developing the necessary means, the bricoleur practices radical experimentation rather than planning (Baker & Nelson, 2005). Bricolage is commonly used to explain the emergence and growth of endeavors in economically depressed, or resource-poor areas, what is commonly the scenario in which social innovation initiatives evolve (Janssen, Fayoele and Wuilaume, 2018).

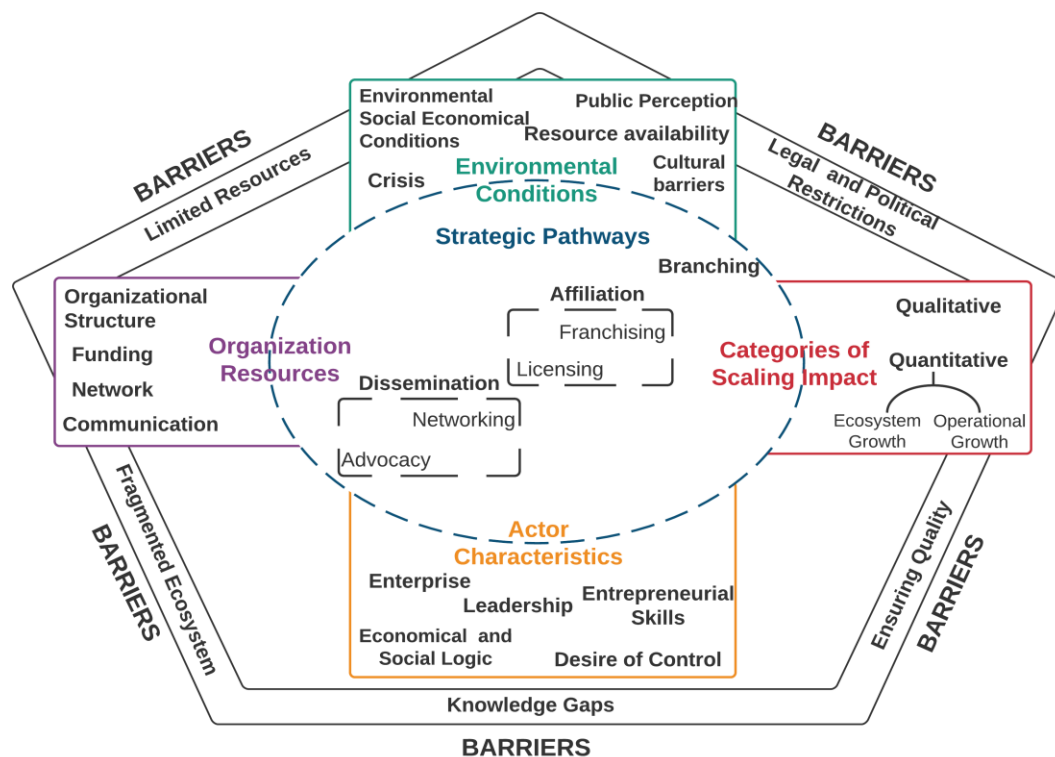
The diversity of logics behind the process of scaling social impact increases the relevance of an integrative overview of the scaling process. That way independent of the logic applied, practitioners can understand the factors involved and the relationship among them. The existing literature has studied an extensive range of factors involved in the process but is still highly fragmented. The purpose of this section is to combine the propositions made through in the literature review to develop an integrative framework that provides a comprehensive overview of the phenomenon of scaling social impact.

Each actor decides to pursue a scaling strategy based on a combination of internal and external factors (Uvin. Jain & Brown, 2000). The literature review showed how the literature on the subject is still very fragmented, with different authors discussing multiple

factors and multiple forms of scaling social impact. Alongside the diversity of terms and definitions that prevents the advancement of established literature, there is still an absence of an integrative analysis that combines the multiple factors involved in the decision to scale and the selection of the strategy, allowing the identification of the key factors involved in the process.

This framework highlights the complex, multidimensional and dynamic nature of the process of scaling social impact and paves the way for understanding the dynamics between those factors. Currently, the existing frameworks in the literature fail to address the multiple logics involved in the scaling process (Corner & Ho, 2010; Fisher, 2012; Weerakoon, Gales & McMurray, 2019), limiting the dynamic interactions of the key factors. Another contribution of this framework is the inclusion of qualitative measures of impact, and consequently, building a comprehensive understanding of the phenomenon. Impact measurement is another critical topic in the social innovation literature that has been gaining attention.

Figure 2 – Multifactor Framework for Scaling Social Impact



Source. Author (2021)

The framework counts with four dimensions of analysis: categories of scaling impact, environmental conditions, organizational resources, and actor characteristics. The first one, categories of scaling, describes the outcome of the scaling process, it focuses on the change in social impact achieved, and can be qualitative, quantitative by ecosystem growth or by organizational growth. The other three dimensions act as both drivers and enablers of the scaling process. The four dimensions are placed around the strategic pathway to represent their roles as drivers or limiting aspects of the strategy.

Since each pathway allows a different level of control and requires a different amount of resources, an actor with a high desire of control would limit the strategy selection to pathways like branching, however, that would require the organization to develop more resources to pursue such strategy. On the other hand, environmental conditions, like cultural or social economical differences can make harder for organizations to expand through a branching or affiliation pathway, since it would require multiple adaptations, pushing the scaling process to dissemination. For an organization focused on qualitative scaling through organizational growth, branching would be the most suitable strategy, while for an ecosystem growth, affiliation and dissemination are more interesting. Due to the dynamic characteristic of the process of scaling social impact, any of the described factors can be the starting point of the process.

For instance, under the logic of causation, practitioners already have selected an outcome, but still need to understand the resources, conditions and skills needed to achieve it (Fisher, 2012), that way the process will start in the scaling impact dimension and the other factors will be developed as necessary. In effectuation logic, the process starts with the existing resources and skills, it leverages on contingencies and strategic relationships, to discover new resources and establish a course of action based on the possibilities offered by its available means (Sarasvathy, 2001; Fisher, 2012). Entrepreneurial bricolage, on the other hand, is motivated by the resource constraint environment and only counts with the resources at hand, leveraging its physical, institutional, or human resources in novel ways (Baker & Nelson, 2005; Fisher, 2012).

The literature review allowed the development of theoretical propositions that originated the dimensions of the proposed framework, the relation between propositions and dimensions of the framework can be found on Table 2. The three dimensions of enablers: environmental conditions, organizational resources, and actor characteristics count with a combination of factors identified in the existing literature. Those factors, despite being enablers and motivators of the scaling process can, also, act as internal barriers of the organization. The absence of a required skill or capability or an unexpected environmental condition can constraint or, even, prevent the scaling process. Besides the potential internal barriers, the scaling process can also be constraint by external barriers and challenges.

The purpose of the framework is to present a combination of different dimensions and factors involved in the process of scaling social impact. With an integrative framework, one can investigate the relations between distinct factors and strategies, make comparisons among distinct scaling strategies, different conditions, contexts, and resource levels, and identify potential areas of development. Consequently, the proposed dimensions of the framework and the theoretical propositions are used in chapter 5 to categorize and analyze the data collected from the two case studies that are presented in sections 4.2 and 4.3.

Table 2 - Relation between Dimensions and Propositions

Dimension	Variables	Authors	Proposition
Categories of Scaling Impact		Uvin & Miller, 1996 ; Uvin, Jain & Brown, 2000; Dees, Anderson & Wei-skillern, 2004; Bradach, 2010; Desa & Koch , 2014; Westley <i>et al.</i> , 2014; Blundel & Lyon, 2015; Moore, Riddell & Vocisano, 2015; Islam , 2020a	<i>P1. The category of scaling impact achieved can determine the process of scaling impact or be limited by the process.</i>
Barriers		Bradach, 2003; Frumkin, 2006; Mulgan, 2007; Bradach, 2010; Caulier-Grice et al., 2010; Vickers & Lyon, 2014; Moore, Riddell, & Vocisano, 2015; Howaldt et. al. , 2016; Scheuerle & Schmitz , 2016; Walske & Tyson , 2016; Asemota & Chahine, 2017; Deiglmeier & Greco, 2018; Eckhart-Queenan et al., 2019; Han & Shah, 2019; Ometto et al., 2019; Rayna & Striukova, 2019; Siebold, Günzel-Jensen & Müller, 2019; Giudici et al., 2020; Siebold, 2020	<i>P2. Internal and external barriers, related to the limited access to resources, knowledge gaps, fragmented ecosystem, legal restrictions or insufficient political support, ensuring quality and mission-drifting can prevent or limit scaling processes.</i>
Organization Resources	Organizational Structure		<i>P3a. The organizational structure, that encompass all human resources and internal processes, of the organization can limit or direct the scaling initiative.</i>
	Communication	Bradach, 2003; Bloom & Chatterji, 2009; Bloom & Smith, 2010; Lyon & Fernandez, 2012; Walske & Tyson, 2015; Hue, 2017; Corner & Kearins, 2018; Gauthier, Ruane, & Berry, 2019; Han & Shah, 2019; Zainol et al., 2019	<i>P3b. The communication capability of the organization, including all the media presence and the relationship with the multiple stakeholders can limit or direct the scaling initiative.</i>
	Funding		<i>P3c. The funding capability of the organization can limit or direct the scaling initiative.</i>
	Network		<i>P3d. The network of the organization, that combines all relevant connections, public and private, made in the ecosystem, can limit or direct the scaling initiative.</i>

Table 2 - Relation between Dimensions and Propositions

Dimension	Variables	Authors	Proposition
Environmental Conditions	Influence	Bradach, 2010; Werawardena & Mort, 2006; Mair & Schoen, 2007; Bloom & Smith, 2010; Smith & Stevens, 2010; Easter & Conway Dato-On, 2015 ; Howaldt et al., 2016; Canatelli, 2017; Rao-Nicholson, Vorley & Khan, 2017; El Ebrashi, 2018; Janssen, Fayoele and Wuilaume, 2018; Guha, 2019; Islam, 2020b; Maseno & Wanyoike, 2020; Van Lunenburg, Geuijen & Meijer, 2020	<i>P4a. Environmental dynamics and conditions can constrain or direct scaling.</i>
	Need for adaptation	Grant & Crutchfield, 2007; Smith & Stevens, 2010; Braund & Schwittay, 2016; Corner & Kearins, 2018; Guha, 2019; Rayna & Striukova, 2019	<i>P4b. Organizations must adapt, customize, and diversify their offerings when changing geographic contexts.</i>
Actor Characteristics	Enterprise	Penrose, 1959; Uvin, Jain, Brown, 2000; Bradach, 2010; Perrini, Vurro & Costanzo, 2010; Smith, Kistruck & Cannatelli, 2016; Tykkyläinen <i>et al.</i> , 2016; Ćwiklicki, 2019	<i>P5. The characteristics of the actor as his enterprise, desire of control, balance of economic and social logic, entrepreneurial and leadership skills can guide or limit the scaling process.</i>
	Desire of Control	Smith & Stevens, 2010; Lyon & Fernandez, 2012; Scheuerle & Schmitz, 2016; Smith, Kistruck & Cannatelli, 2016; Van Lunenburg, Geuijen & Meijer, 2020	
	Balance between economic and social logic	Braund & Schwittay, 2016; Scheuerle & Schmitz, 2016; Siebold, Günzel-Jensen & Müller, 2019; Van Lunenburg, Geuijen & Meijer, 2020	
	Entrepreneurial Skills	Sarasvathy, 2001; Baker & Nelson, 2005; Bacq et al. 2015; Scheuerle & Schmitz, 2016; Rangan & Gregg, 2019; Van Lunenburg, Geuijen & Meijer, 2020	
	Leadership	Scheuerle & Schmitz, 2016; Mastrangelo, Benitez, & Cruz-Ros, 2017; Han & Shah, 2019; Van Lunenburg, Geuijen & Meijer, 2020	
Strategic Pathways		Uvin & Miller, 1996; Dees, Anderson & Weiskillern, 2004; Frumkin, 2006; Mulgan, 2007; Murray, Caulier-Grice & Mulgan, 2010; Westley & Antadze, 2010; Lyon & Fernandez, 2012; Narang, Narang & Nigam, 2014; Westley et al., 2014; Bocken, Fil & Prabhu, 2016; Asemota & Chahine, 2017; Giudici et al., 2020	<i>P6. The strategic pathway selected by an organization is related to the combination of existing resources of the organization, the characteristics of its leader and the environment.</i>

Note. Organized by the Author

3 METHODOLOGY

This chapter addresses the research methodology that guided this work in three main sections. The first section outlines the research question and the auxiliary questions that are addressed in this work. Section 3.2 present the research design and details the research methods divided in two parts, the first one, theoretical and the second, empirical. The third section describes the project scope, the case selection, data collection and data analysis techniques and the research limitations.

3.1 Research Questions

The research question was based on the analysis of the established literature on social innovation. The current literature on both social innovation and social entrepreneurship has presented scaling social impact as a central topic (Bloom & Smith, 2010). Due to the magnitude of the problems, it addresses and its complexity, the process of scaling social innovation, and consequently, social impact remains a relevant but understudied phenomenon (Dees et al., 2004; Cannatelli, 2017; Islam, 2020a).

The limited literature on how social initiatives scale combined with the global demand for solutions to social issues and unmet social needs motivated this research on understanding the phenomenon of scaling social innovation. The goal of the research is to answer the question: *How different actors can scale social innovation?*

The exploratory nature of the research question and the multidimensional characteristic of the subject lead to the identification of four auxiliary specific questions that need to be addressed in order to develop a comprehensive overview of the phenomena and answer the main research question.

- What are the possible scaling strategies of social initiatives?
- What are the drivers of the scaling process?
- What are the factors that can limit or prevent social initiatives to scale?
- What are the external and internal factors that influence or determine the strategy selection?

3.2 Research Design

The current work is designed as a qualitative research. A qualitative research allows the researcher to explore and understand a concept or phenomenon, being able to achieve a more comprehensive understanding of the phenomenon in a specific context. The qualitative approach is especially useful to determine which dimensions and variables are important to examine an understudied phenomenon or sample (Creswell, 2014), which is the case of the present research. However, following a qualitative approach makes it harder to achieve a level of generalization of results than when following a quantitative method, especially due to specificity of the context and the difficulty to analyze large enough samples to achieve statistical relevance (Castellan, 2010).

The research is divided in two parts, one theoretical and the other empirical. Yin (2003) argues that the development of a theoretical framework for a case study, not only contributes to defining the research design and data collection but can also, be used to develop broader theory. The first part focus in the development of a framework to provide a better understanding of the phenomenon and to be used to systematically analyze empirical data. This first part was based on a systematic literature review that allowed us to formulate propositions and elaborate the theoretical framework for analysis.

The empirical part of the research is designed as a multiple case study. Case studies are a research design centered in an in-depth analysis of a case, event, activity, process, or one or more individuals through a variety of data collection procedures. A multiple case study enables the researcher to explore differences within and between cases with the objective of replicate findings across cases and identifying patterns to understand “how” the phenomenon of scaling happens inside each specific territorial context (Yin, 2003; Eisenhardt & Graebner, 2007). As presented in section 1.2, due to the development potential, territorial importance and inequality rates of the country, this dissertation takes Brazil as the specific social economical and territorial context of both case studies. In the following sections, the case selection, data collection and analysis are described in more details.

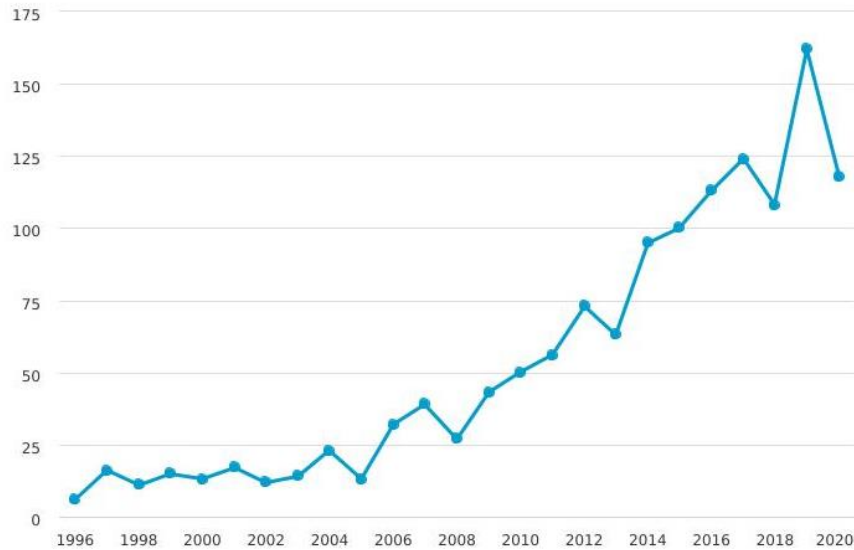
3.2.1 Theoretical

Due to the fragmented literature on the topic across multiple areas of study, a systematic literature review was performed to identify central topics of the literature and integrate them (Creswell, 2014). This process of synthesizing the existing literature on the research topic, especially for emerging topics like the scaling of social innovation, enables new theoretical frameworks and perspectives to emerge (Torraco, 2005).

The first step of the literature review was determining a set of keywords to locate articles relevant to the social innovation context, while taking in consideration the diversity and ambiguity of terms and definitions existent in the literature. We developed a set of keywords that included the terms: “social innovation”, “social innovators”, “social enterprise”, “social entrepreneur”, “social entrepreneurship”, “social business”, “social impact” and “NGO”, as we understood that those keywords could encompass the multiple definitions and actors involved in the social innovation process. To select documents related to the scaling process that is the central topic of the research, we developed a complementary set of keywords that included: “scaling”, “scalability” and “scale”.

This database selected for the data collection was Scopus, Elsevier’s database launched in 2004 that counts with over 24,600 active titles and 5,000 publishers (SCOPUS, 2020). We, then, adjusted the keywords to ensure the comprehensiveness of the research, using the wildcard (*) that represents any number of characters, and, consequently reducing the keywords to “social innovat*”, “social entrepr*”, “social enter*”, “social business”, “social impact”, “NGO” and “scal*”. The search was made using the article title, abstract or keywords feature of the database, and included documents with any of the first set of keywords (“social innovat*”, “social entrepr*”, “social enter*”, “social business”, “social impact”, “NGO”) AND “scal*” with no time period restrictions. This search resulted in 3.546 documents. In the document type refinement, we limited the category to articles, resulting in 2.609 articles, the results showed an increase in article production on the area over time, as showed in Figure 3.

Figure 3 - Articles per year (1996-2020)



Note. Query: "social innovat" OR "social entrepr*" OR "social enter*" OR "social business" OR "social impact" OR "NGO" AND "scal*"*

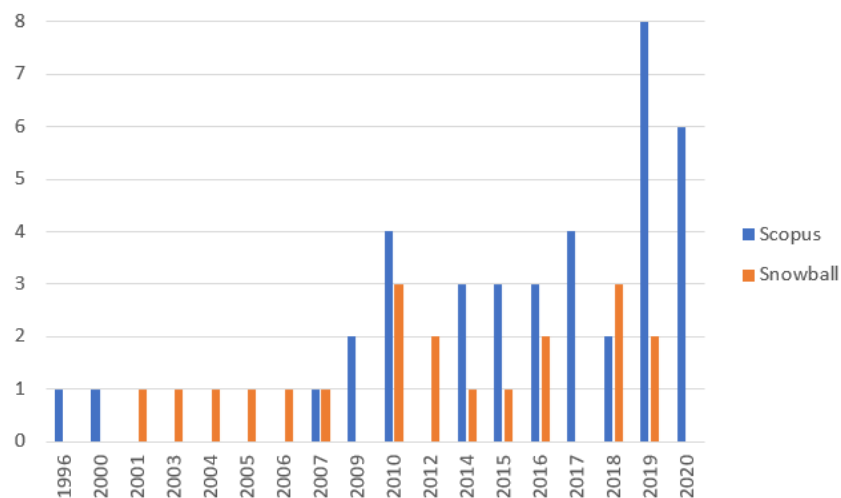
In another refinement in the categories of Scopus, we limited the results to the areas of “management” and “business” to exclude the documents that did not provide insights on the phenomenon of scaling social impact, resulting in 434 articles. We, then, did an analysis of the titles and abstracts of all the resulting articles to determine which ones were inside of the scope of the research. Articles were removed if they did not discuss the scaling process. This left a total of 76 articles.

The total 76 articles were then read and coded. A descriptive coding process summarizes in a word or short phrase the basic topic of a passage of qualitative data (Saldaña, 2013). The codes that emerged in this stage were: (1) impact, (2) barriers, (3) resources, (4) capabilities, (5) actor characteristics, (6) environment and (7) strategies. 36 articles were removed after this stage, since they did not provide insights on the phenomenon of scaling social impact, its strategies, challenges, or drivers. Leaving a total of 40 articles.

To ensure that all relevant literature was included in the analysis, we adopted a snowball sampling technique, that produces a network of relevant articles built around the

citations on the original sample (Lecy & Beatty, 2012) complementing the sample until data saturation (Naderifar, Goli & Ghaljaei, 2017). Through this process another 27 new documents, being 23 articles, 2 books (Penrose, 1959; Frumkin, 2006) and 2 reports (Caulier-Grice *et al.*, 2010; Howaldt *et al.*, 2016) that met the criteria of the review were included. Therefore, the final sample contained a total of 67 documents, all coded through a descriptive process. The distribution of articles through time showed on Figure 4, highlights the emergency and growing interest on the topic of scaling social innovation.

Figure 4 – Selected articles per year (1996-2020)



Note. Author

The 67 selected articles came from 36 different sources, a consequence of both the multidimensional characteristic of the phenomenon and the lack of a generalized established literature on the topic. As we can observe in Figure 5, the largest source of data regarding the scaling of social innovation comes from the Journal of Social Entrepreneurship.

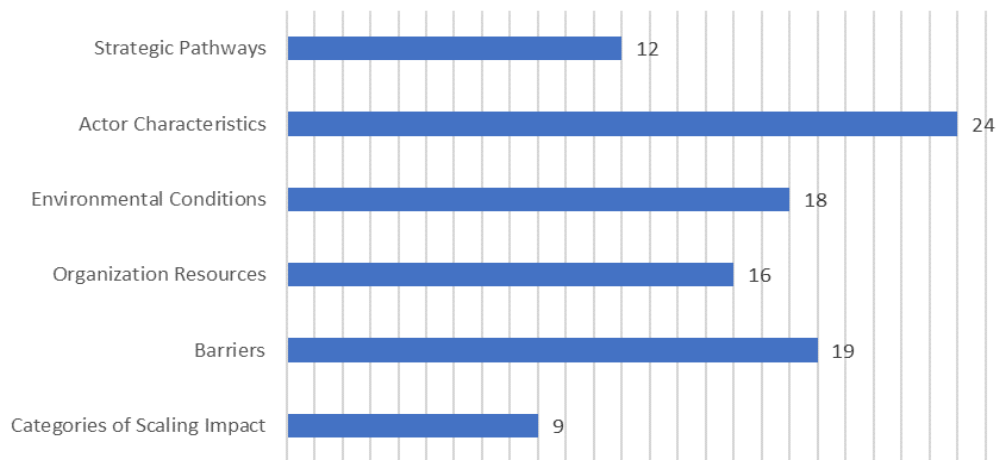
Figure 5 – Selected documents per source



Note. Author

The coded articles were then, organized in four central topics: (1) scaling impact, (2) barriers, (3) resources and capabilities for scaling, and (4) strategic pathways, that were divided in 6 dimensions of analysis (categories of scaling impact, barriers, organization resources, environmental conditions, actor characteristics and strategic pathways). Some documents were included in more than one dimension, in Figure 6, we can see the distribution of documents per dimension. The graph highlights the importance of the role of the actor in the literature of scaling social innovation.

Figure 6 - Distribution of the selected documents per dimension



Note. Author

After the selected literature was coded and organized, the data obtained from the literature review was used to advance 10 theoretical propositions related to each of the previous dimension and build a framework. The framework, presented in section 2.5, summarizes the 10 propositions and six dimensions presented throughout chapter 2, being a helpful tool to specify the key variables that influence the phenomenon of scaling social innovation and highlight the need to better understand the dynamics among them.

3.2.2 Empirical

Case studies are empirical inquiries that investigate a phenomenon within its context, the goal of the case study is understanding the dynamics present in the studied phenomenon, treating the context as a relevant factor to the phenomenon (Eisenhardt, 1989; Yin, 2003). This approach is fitted to study under researched complex phenomena (Eisenhardt & Graebner, 2007) like the phenomenon of scaling social innovation.

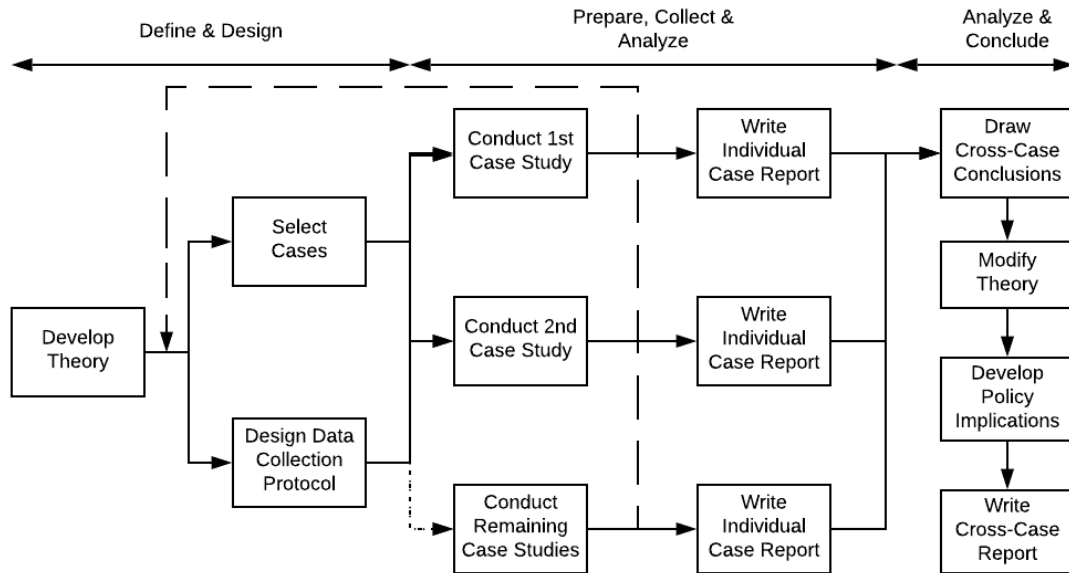
The central limitations of the case study approach are the difficulty to develop generalizable results and to establish causation connections to reach conclusions, especially due to the reduced number of cases analyzed (Yin, 2003; Castellan, 2010). The multiple case study approach minimizes those limitations constructs and relationships

are more precisely delineated due to the larger amount of empirical data characteristic of the multiple-case study approach (Eisenhardt & Graebner, 2007).

On this research we analyze two different cases of Brazilian NGOs that have successfully scaled their social innovation throughout their history. The research follows a replication logic for multiple-case studies, where cases are selected through theoretical sampling (Eisenhardt & Graebner, 2007) to predict similar, a literal replication, or contrasting results, a theoretical replication (Yin, 2003). The case study counts with the organization as the unit of analysis and primary and secondary data were collected from multiple sources, following a triangulation method.

The replication approach to multiple-case studies illustrated on Figure 7 consists of three main steps, the first one is define and design, encompassing the stages of theory development, case selection and the design of the data collection protocol of both primary and secondary data. The second step consists of conducting the cases and writing individual reports. In a multiple-case study is necessary to treat each case as an individual complete case, indicating in the individual reports how and why a proposition was demonstrated or not. The case studies can lead to important discoveries that could require reconsidering the theoretical propositions and redesigning the data collection protocol, creating a feedback loop between the first two steps. The third step consists of developing a cross-case analysis indicating the replication logic and the rationale behind the predicted results (Yin, 2003).

Figure 7 - Replication approach to multiple-case studies



Source: Yin, 2003, p. 50.

Following Yin's (2003) case study protocol, we have summarized the five components of research design: questions, propositions, units of analysis, logic linking data to propositions, and criteria for interpretation. The relation between the research questions, propositions, theoretical dimensions and variables are portrayed in Table 3.

Table 3 - Case Study Protocol

Research Question	Auxiliar Research Question	Theoretical Framework Dimension		Theoretical Proposition
How different actors scale social innovation?		Categories of Scaling Impact		P1. The category of scaling impact achieved can determine the process of scaling impact or be limited by the process.
	What are the factors that can limit or prevent social initiatives to scale?	Barriers		P2. Internal and external barriers, related to the limited access to resources, knowledge gaps, fragmented ecosystem, legal restrictions or insufficient political support, ensuring quality and mission-drifting can prevent or limit scaling processes.
	What are the drivers of the scaling process?	Organization Resources	Human Capital	P3a. The organizational structure, that encompass all human resources and internal processes, of the organization can limit or direct the scaling initiative.
			Communication	P3b. The communication capability of the organization, including all the media presence and the relationship with the multiple stakeholders can limit or direct the scaling initiative.
			Funding	P3c. The funding capability of the organization can limit or direct the scaling initiative.
			Network	P3d. The network of the organization, that combines all relevant connections, public and private, made in the ecosystem, can limit or direct the scaling initiative.
		Environmental Conditions	Dynamics	P4a. Environmental dynamics and conditions can constrain or direct scaling.
			Adaptation	P4b. Organizations must adapt, customize, and diversify their offerings when changing geographic contexts.
	What are the external and internal factors that influence or determine the strategy selection?	Actor Characteristics	Enterprise	P5. The characteristics of the actor as his enterprise, desire of control, balance of economic and social logic, entrepreneurial and leadership skills can guide or limit the scaling process.
			Desire of Control	
			Balance between economic and social logic	
			Entrepreneurial Skills	
			Leadership	
	What are the possible scaling strategies of social initiatives?	Strategic Pathways		P6. The strategic pathway selected by an organization is related to the combination of existing resources of the organization, the characteristics of its leader and the environment.

Note. Organized by the Author

3.3 Research scope

This work aims at understanding how different actors scale social innovation. To answer this research question, this work proposes an analysis of the main factors involved in the scaling strategy selection and process. The analysis was made in the Brazilian context, an emergent country with a high level of social inequality, and consequently, a high demand for social innovation. Brazil presents institutional and political barriers that can affect the process of scaling social innovation, being a relevant context to be explored.

The research was limited to young organizations, with around 6 years of operation. The shorter time frame facilitates the collection of data regarding the scaling process of the organizations and the shared period facilitates the comparison for the cross-case analysis. The analysis only includes organizations that have successfully scaled their impact since foundation, since the main interest of the research is to determine “how” the process of scaling takes place. As defined in section 2.1, scaling impact throughout this research encompass the expansion of both beneficiaries, geographical locations, and service offerings, englobing both depth and breadth of impact (Desa & Koch, 2014).

3.3.1 Case selection

The selection of cases is an important aspect in hypothesis-testing (Eisenhardt, 1989). For a replication multi-case study, a theoretical sampling is a fitted approach to case selection. Theoretical sampling consists of the selection of cases based on their capacity for illuminating and extending relationships and logic among constructs (Eisenhardt & Graebner, 2007).

Taking in consideration the importance of selecting comparable and complementary cases and the relevance of the context of the case for the analysis, the selection required that cases shared a similar social-economical and geographical context. Other commonalities selected to ensure that the cross-case analysis provided comparable results were the political and institutional context, in this case by selecting organizations that started their operations in the same period and have similar. Through

this selection criteria we could minimize the impact of the external factors of each case and focus on their specific characteristics, achieving both literal and theoretical replication.

To ensure that the cases shared economic, political, institutional, and cultural characteristics, we limited the case selections to one geographic area and period. Thus, both cases selected are Brazilian NGOs that started their activities in 2014 and have more than two employees. Due to the scope of the research, only cases that have successfully expanded their operation, at least once, in a qualitative or quantitative perspective were selected. According to IBGE (2020) only 10% of NGOs in Brazil have more than two employees and only the percentage drops to 2,5% when excluding religious organizations and professional associations. Thus, the number of employees can be used as an indicator of relevance and size of an NGO, and consequently, as an indicator of organizational growth. To offer different insights, the cases selected are classified in different areas and have different service offerings and beneficiaries.

The selected NGOs after the definition of research criteria are Litro de Luz and Projeto RUAS. Litro de Luz is a Brazilian NGO that is part of an international movement that provides sustainable lighting solutions for communities without access to electricity in more than 20 countries since 2012. However, Litro de Luz only started its activities in Brazil in 2014. Litro de Luz currently counts with five employees, its headquarter is located in São Paulo, in the southeast region of Brazil and is classified as part of the development, advocacy and human rights category.

Also located in the southeast of Brazil, the region with the largest concentration of NGOs (IBGE, 2020), Projeto RUAS is an NGO dedicated to the assistance, support, and recovery of homeless people. Since it started in Rio de Janeiro in 2014, Projeto RUAS has been constantly increasing not only their geographical area, but also their project offerings. RUAS became an official NGO in 2016 and is classified in the social assistance category. Currently, RUAS counts with 3 full-time employees managing their operation and fundraising activities.

3.3.2 Data Collection

Case studies can accommodate multiple data sources, including sources of primary data, interviews, direct observations and participant-observation, and secondary data, like archival data, survey data and documents (Eisenhardt & Graebner, 2007).

According to Yin (2003), the three principles of data collection are: using multiple sources, creating a case study database, and maintaining a chain of evidence. Validity is one of the main issues regarding qualitative research, therefore, to ensure the construct validity, is necessary to follow these three rules regarding the data collection. Through the combination of data from multiple sources, we can triangulate the methods (Runeson and Höst, 2009). Triangulation consists of searching converging findings from different sources, reducing the bias from the research, and increasing construct validity (Yin, 2003).

In this research we collected primary data through semi-structured interviews, the official website, reports and observations of the posts of the organizations in social media. Secondary data was collected through the articles in the media, videos and awards. A semi-structured interview consists of a list of themes and questions to be covered, while maintaining more open-ended questions than a structured interview, and allowing the emergence of questions and discussion with the interviewee rather than a straightforward question and answer format. Interviews were conducted with Vitor Belota and Laís Higashi from Litro de Luz, respectively the founder of the organization and current member of the advisory board, and the founder of the São Paulo cell and current president of the organization, and with Larissa Montel, manager of Projeto RUAS and one of the three employees of the NGO. All interviewees are responsible for the strategical planning and decision making of the organizations. The interviews were about 45 minutes long and were recorded and transcribed with the permission of the interviewees to successfully collect and analyze the data. The interview script can be found in ANNEX 1. The data collected encompassing both the primary and secondary sources listed in Table 4 was used to build a database that was later coded and analyzed.

Table 4 - Data Sources

Data Collection Source

Litro de Luz		
Primary	Semi-structured Interviews	Laís Higashi (President) and Vitor Belota (Founder)
	Social Media Posts	Instagram, Facebook, LinkedIn, YouTube
	Documents	Report 2019, Report 2018, Report 2017, Metodologia Nosso Jeito, Manual De Fabricação Do Lampião Do Litro De Luz Brasil
	Website	https://www.litrodeluz.com/
Secondary	Documents	Metodologia Litro de Luz - Projetos FAU Social Liter of Light: Lighting homes and lives one bottle at a time - BHSF
	Interviews in the media	Litro de Luz: Superando barreiras socioeconômicas e geográficas de iluminação - TEM Sustentável Fundação BB premia experiências de inclusão social e anuncia mais investimento para 2018 - Fundação BB Voluntários levam luz a lugares sem energia elétrica no Norte e Nordeste - G1 Fantástico Vídeo da ONG Litro de Luz mostra ação que iluminou comunidade Kalunga em Goiás - Fundação BB Alfredo Moser: Bottle light inventor proud to be poor - BBC Com garrafas PET, jovem leva luz de baixo custo para comunidades pobres - Folha de S. Paulo Grupo do DF ganha prêmio por poste com garrafas PET e lâmpadas de LED - G1 Litro de Luz Brasil encerra 2018 com mais de 10 mil beneficiados e mais de 1.800 soluções instaladas - TEM Sustentável Jovem sansei leva luz a povos isolados com lampião de PET - Folha de S. Paulo Diretoria jurídica no terceiro setor: relato de uma experiência - Jota Info Estudante preside ONG que leva iluminação a bairros carentes - Veja Rio
Projeto RUAS		
Primary	Semi-structured Interviews	Larissa Montel (Manager)
	Social Media Posts	Instagram, Facebook, YouTube
	Documents	Report 2019, Report 2018, Cartilha Housing First, Movimento Pop RUA, Estatuto, General Assembly 2018
	Website	https://www.projeto ruas.org.br/ https://benfeitoria.com/rededoruas https://popruaeuimporto.org/
Secondary	Interviews in the media	Deborah Barrocas ajudou a fundar uma ONG - Veja Rio Os jovens brasileiros premiados nos EUA por soluções para problemas sociais - BBC Brasil Rio's homeless forced from Copacabana beach due to Olympics - Thompson Reuters JO 2016: Où sont passés les sans-abri de Rio? - 20 minutes PopRua': campanha multiplica caixas de doações para ajudar sem-teto - G1 Marco Dobal Cucco distribui donativos a moradores de rua - Veja Rio Projeto Ruas lança vídeos desmitificando situação de moradores de rua - O Globo Murillo Sabino: o poder da mobilização contra a miséria - O Globo Pessoas em situação de rua de cidades do Brasil trocam cartas falando sobre a vida na rua, a esperança e o amor - Hypheness

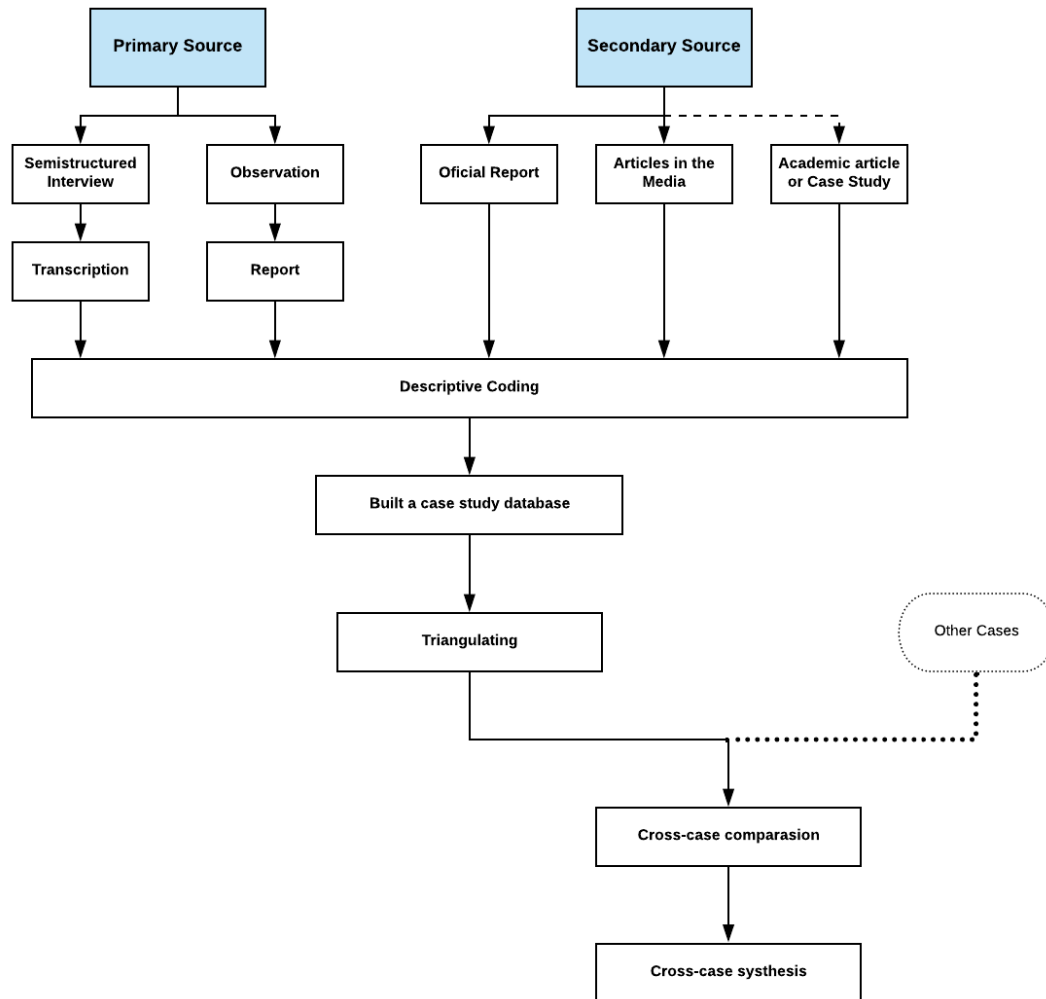
Note. Organized by the Author

3.3.3 Data Analysis

We used the theoretical propositions presented throughout section 2 to guide the case study analysis. This strategy helps organize the case studies and identify alternative explanations that can be examined. Building on the dimensions and variables portrayed in the theoretical framework previously developed in section 2.5 the data from the two cases were analyzed using cross-case synthesis (Yin, 2003).

First, the data collected for each case was organized, categorized, and coded according to the dimensions of the framework using the software N-VIVO. Data from both primary and secondary sources were compared in order to cross-validate the findings within each case study and reduce the potential biases, following a triangulation process (Creswell *et al.*, 2003, p. 229). After the analysis of the data within each case following the theoretical proposition strategy, a cross-case synthesis was made to identify commonalities and differences between the studies. Figure 8 presents the framework for the data analysis process.

Figure 8 - Data Analysis Framework



Note. Author (2021)

The coding of the data followed the variables determined in the theoretical framework present in section 2: (1) category of scaling impact; (2) organization resources, that is divided in human capital, communication, funding and network; (3) environmental conditions, divided in dynamics and adaptation; (4) actor characteristics, encompassing enterprise, desire of control, balance between economic and social logic, entrepreneurial skills and leadership; and (5) strategic pathways. In ANNEX 2, you can find the relation between dimensions of analysis and the interview questions.

4 CASE STUDIES

4.1 The Brazilian Context for Social Innovation

Brazilian economy has experienced significant changes in its' economic profile and growth rates. In a combination of currency stabilizing policies, a growth in the export of agricultural, mining and a few manufactured products, such as the medium-sized commercial airplanes produced by Embraer, and social policies that provided monetary support to the poor expanded and consolidated the national consumer market. This scenario expanded the middle class and created an opportunity for a new social class to enter the market, however, there were still 40 million Brazilians living below the poverty line. However, after 2013 with the Brazilian political and economic crisis resulted in a growth in the unemployment rate and in the size of the population living below the poverty line, reaching over 50 million Brazilians in 2019 (IBGE, 2020), deepening social problems like rampant crime, child labor and school dropout rates.

According to the Human Development Index, considering the data for the year 2019, released by the UN, Brazil lost five positions in the overall ranking, going from 79th to 84th, Brazil ranks as the 8th-worst position in income inequality, behind only African nations. This result reflects the concentration of richness, the poor public management of resources and corruption scandals, that deepens social issues, like the lack of access to basic public services and rights. These major social challenges create a demand for social innovation.

Brazil is the largest economy in Latin America and has one of the 10 largest GDPs in the world, has a high rate of entrepreneurship, with 38% of its population between 18 and 64 involved in entrepreneurial endeavors (Greco *et al.*, 2018), and according to the Global Innovation Index, Brazil has a score of around 32, occupying an intermediate position and ranking second in innovation quality among the middle-income economies, behind only China (Spinosa, Schlemm & Reis, 2015). Currently, the fiscal crisis jeopardized the progress made in recent decades, reducing the level of public investment in R&D to less than it was 20 years ago (Cornell University, INSEAD, and WIPO, 2020). This combination of inequality, economic potential, entrepreneurship, and innovation rates

contribute to the creation of an ecosystem for the development of social innovation (Santana & Silva, 2015).

The social innovation ecosystem in Brazil has been mainly centered on NGOs focusing on filling the gaps left by the government in areas like education, health and poverty alleviation (Anastacio, Filho & Marins, 2018), however, from the almost 800 thousand civil society organizations (OSC) in Brazil, 40% are located in the southeast region, 12% are religious organizations, 83% have no paid employees and 7% have up to two paid employees (Lopez, 2018). The non-profit sector still faces many challenges specially when it comes to funding. Historically, we know that Brazilian philanthropy was financed by international cooperation and private international foundations, however the strengthened economy and internal wealth, changed funders perspectives and began to direct their investments to poorer countries, increasing the need to strengthen the philanthropic field in Brazil (Mortari, 2020). Corruption scandals, difficulties in communication and the lack of transparency have contributed to increase public distrust toward NGOs. On top of that, the lack of legal and fiscal benefits reduces the attractiveness of corporate and personal donations, contributing to the country's 122nd position in the World Giving Index (Renaut, 2019).

4.2 Litro de Luz

Energy poverty is a distinct form of poverty that encompass access to adequate warmth, cooling, lighting, and the energy to power appliances that are essential to guarantee a decent standard of life (Energy Poverty Observatory, 2020). According to the World Bank, over 10% of the world population had no access to electricity in 2018, some of these communities are completely remote and do not have access to electricity grids. However, the issue goes beyond the access to electricity since there's also people that have access to it but cannot use it due to the high cost associated with this resource. Light contributes to the performance of domestic activities and decreases the frequency of violence and sexual abuse, since there is a higher incidence of those crimes in dark places (Jones, 2016; Tod & Thompson, 2016)

In 2002 after several blackouts in his town, Alfredo Moser, a Brazilian mechanic developed a low-cost light tube that refracted solar light providing interior lighting using plastic bottles, water, and a small amount of bleach to avoid the proliferation of microorganisms on the water and increase the duration of the lamp (Zobel, 2013). Illac Diaz, founder of the Philippine non-profit social enterprise, My Shelter Foundation, an organization that aims at offering sustainable building solutions for underprivileged communities and storm-damaged areas, came across the bottle-light technology in 2005 during his studies in alternative architecture and urban planning at the Massachusetts Institute of Technology (MIT). After seeing videos of the solution being used to light poor and storm-damaged houses in Haiti, Diaz decided to develop an open-source DIY program that could be easily replicated by anyone around the world (World Habitat, 2016).

In January 2011, Illac Diaz launches the Liter of Light project in the Philippines through My Shelter Foundation. Within 20 months of its launch, Liter of Light became a global movement benefiting more than 150,000 households in the Philippines and starts expanding to other countries following a network strategy. Liter of Light used its website and social media, like Facebook, Youtube, Twitter and Instagram to inspire new initiatives and share how to build and assemble the solar light bulbs. Currently the project has been replicated in Bangladesh, Brazil, Colombia, Dominican Republic, Egypt, India, Italy, Kenya, Mexico, Nepal, Netherlands, Nicaragua, Pakistan, Spain, Switzerland and United Kingdom via partnerships with independent social enterprises that raise their own funds to run the project in their respective areas. The local organizations benefit from the established brand, the network, and the shared knowledge, while each chapter develops its own operations and programming. Some chapters work mainly as fundraisers for operations in different countries, while others operate at a local level (World Habitat, 2016).

4.2.1 Creation and Early Operation of “Litro de Luz” in Brazil (2013-2015)

In 2013, after returning from a volunteer work experience in Nairobi, Kenya, Vitor Belota contacted Illac Diaz to develop a chapter of the program in Brazil. During his period as a volunteer teacher in Kenya, Belota noticed that the classrooms had insufficient light

for students and teachers to work, that was when he had his first contact with the bottle lamp technology, after learning about the process, Belota and a group of friends made 140 installations in over 14 public schools.

“I met this technology when I went to do an exchange by AISEC in Kenya, in Nairobi. I went there to teach, and it turned out that the school I worked for was very dark, and me and some friends we did a project there to illuminate the local schools”

After getting the approval by Illac Diaz to use the brand name, Vitor Belota reached out to Allana Souza and Pedro Santos, that had previously contacted Diaz to start the project in Brazil, and a month later they start to install bottle lamps on the roof of some houses in the city of Florianópolis where the three of them lived. According to Belota, Illac explained him that Litro de Luz would be an independent organization:

“when I talked to Illac, I understood that I was going to have full autonomy to do what I wanted, because we do not have a headquarter of Liter of Light in the world. The only thing we have is a signed term of agreement with Illac (...) saying that he authorizes the use of the brand here for Brazil. But there is no kind of hierarchy, we do not report them anything, there is no kind of royalties to use the name, there is nothing, if tomorrow I want to do a project Liter of Light, where I'll be building surfboards made of pet bottle, he won't even know.”

According to Belota, in the early stages of the operation, Litro de Luz counted only with bottle lamps that refracted light, working only during the day, and they only had access to communities located in the urban area of Florianópolis, where indoor lighting was not an issue, since the population either had access to regular electricity or benefited from illegal electrical connections. At that point, they decided to stop the operations, replan the activities, dedicate some time to better understand the electricity demands and how to approach new communities and make changes in their approach.

Developing a new solution. After participating in a TETO operation in the community of Vila Bira Mar in Rio de Janeiro, Belota asked the community representative, Zélia, that was working with them about their lighting needs and identified that their biggest demand was related to the lack of light in the small street that connected one side of the community with the main avenue during the night and in the early morning. At the time, multiple Liter of Light chapters were already starting to develop nighttime technology.

Using the global Liter of Light network, Belota contacted the Pakistan chapter to learn from their projects and to get their models. Since, he was living in Brasília, he decided to partner with ENETEC, the junior enterprise of electrical engineering from UnB to develop Litro de Luz's own nighttime technology free of charge and using the laboratories of the university.

A new organizational structure. At the time, Litro de Luz had around 9 members. The whole organization was composed of volunteers that were personal friends with the founders. According to Belota the informal structure of the volunteer work presented issues like low performance and commitment. Simultaneously, Litro de Luz was getting attention and engaged people started reaching out to Belota to participate or start local Litro de Luz projects across the country.

“there was a culture that volunteering did not need to be taken seriously, and it was very bad, because the very engaged people who entered the team, in two weeks already saw how it was the culture and were swallowed by the culture. This culture of non-delivery, and that was very frustrating, then, when I decided that this was going to be really a profession for me, I had a serious conversation with the team, at the time we had about nine people on the team, and of those nine, seven people left after the conversation.”

The new organizational structure counted with two people working on the national level, one of them being Vitor Belota that was still the president of Litro de Luz, and two local cells coordinated by two people each, one in Brasília and one in Rio de Janeiro. The cells had a lot of autonomy to organize their own activities and volunteers, while the focus of Belota was raising funds to support the organization.

At the time we had money for nothing, then I managed to capture 15 thousand dollars with Ilac, which was ... He had this foundation that called My Shelter Foundation, which took care of the Liter of Light in the Philippines, and then he gave 15,000 dollars, and then I got another donation here in Florianópolis, about two or three donations, which totaled around 20 thousand, and even then, this was very little for the rhythm that we wanted, for the projects that we wanted to play, mainly night lighting.

The first large operation and the start of a new growth stage. Litro de Luz first action using the newly developed nighttime technology was carried out in June 2015 in Rio de Janeiro, in the community of Vila Beira Mar in Duque de Caxias, with the installation

of 28 lampposts in the small street that connected one side of the community with the main avenue. This operation was focused on the demand raised by the community representative during Belota's earlier experience with the TETO operation. The whole operation was documented in both video and photos to ensure quality audiovisual material that could be used to advertise the organization and capture resources. A new cell starts in São Paulo coordinated by Laís Higashi and Leonardo Uematsu.

"It was at this moment that Litro de Luz began to take off, that's when we took the first photos, we always focused in collecting good audiovisual materials, so we filmed, we took several pictures, and then that helped us to capture resources."

Service offerings to diversify funding. In order to diversify its funding, Litro de Luz started with service offerings targeted at companies: the corporate volunteering action, the solution-building workshop, and the sponsored actions. In the first two services employees of the companies act as volunteers, they are trained by the Litro de Luz ambassadors and team and can learn how to build a solution that will later be donated to a community. The corporate volunteers can also participate in the setup in the community and can teach the residents how to build the solutions. In the last service, Litro de Luz develops the whole solution in a geographical region relevant for the company, bringing social impact, improving the relationship between the company and the residents, the results of environmental compensation on impact report, and the company's public image. In those services, Litro de Luz engage residents, teach the residents to build the solutions and install them in the community alongside the residents.

"At the time, I was working at Yunus, so I was already looking at social business, I wanted Litro to be self-sufficient, that we did not depend on donations to survive. And we already had some examples of other chapters in the world that acted a little like this, that already generated their own income, a specific one was the chapter in Colombia, they already had a mindset of selling services. And then I told Laís what my vision was, and Laís had just come back from Bangladesh, where she had met Yunus too, so we came from that same school, more or less... And she also said: "that's what I want," (..) so we always had this idea that Litro de Luz in an ideal setting would be responsible for all its revenue. Of course, afterwards we evolved and understood that we did not have to pick one or the other, you can do both, which is the vision that we have today. (...) we already had this vision from the beginning, to transform Litro, not necessarily in a

social business, but to sell services, products, so that it could be as self-sustainable as possible”

In the end of 2015, Litro de Luz hold its first corporate volunteering action with Airbnb. The action took place in Vila Moraes in São Bernardo do Campo and was partially funded by the company. The main objective of this partnership was to start Litro de Luz service portfolio. The action took place in three stages, ending in November 2016 with a total of 50 lampposts installed, around 30 volunteers and over 2 thousand people impacted. This action was also filmed and documented.

International recognition and a new economical stage. With the successful development of the nighttime technology and the financial restraints for expansion, Belota submitted Litro de Luz for the St. Andrews Prize for The Environment, an award from the Saint Andrews University in Scotland that recognizes significant contributions to environmental conservation in the developing world.

“we were selected to go to the final, and then in the final already ... Third and second place already earned \$25,000. And the first one made \$100,000. 25 thousand dollars would already allow us to make the trip to the Amazon, that we wanted to go to the riverside communities.”

With the prize money, Litro de Luz would be able to fund an operation in the Northern region of Brazil that accounted for the largest population without access to electricity. Belota went to Scotland for the final selection phase, where he had to present the solution and be evaluated by the judging committee. Litro de Luz received the first place and won USD100.000,00. At the same time, they had won a BRL30.000,00 from Brazil Foundation and had closed a project with the French multinational Saint-Gobain. This growth in financial resources signalized the beginning of a new stage for Litro de Luz. At that moment, Belota decided it was time to step down as president of Litro de Luz and invited Laís Higashi, the leader of the São Paulo cell, to take over.

4.2.2 Change in Leadership and Expansion (2016-2020)

A new organizational structure to support the growth. Litro de Luz was reaching a stage that required a more robust and professional structure. After being invited to become president of the organization, Laís Higashi had the challenge to structure the

organization and its business model. With almost BRL500.000 in the bank account, Litro de Luz created a financial department, lead by a volunteer director, to manage the funds and deal with the accounting. The lawyer Lucas Macedo was invited to be the director of the legal department and assist in the bureaucratic procedures for the presidential transition. According to Macedo, the legal department is responsible for analyzing contracts, potential contests, dealing with societal and regulatory requirements, registering trademarks and intellectual property, and managing the compliance program to ensure the organization transparency. The new organizational structure counted with a board of directors composed only of volunteers, including the president.

The second big change in the organization structure was the development of structured volunteering program, that counts with a thorough selection process, a minimum amount of hours dedicated weekly for the organization, monthly meetings, special trainings and periodical assessments. This structure allows the organization to manage their 200 volunteers across Brazil. The volunteers work in recurrent activities in one of the 7 departments of the organization: commercial, human resources, legal, social development, finance, marketing and operations and technologies.

“We've always had a lot of volunteers, however volunteering isn't well organized, and often the organization can't grow (...) it becomes a mess, we struggled to develop a culture that people who enter are well selected, we do selection process, that is super competitive, to understand who has the right profile, who really matches with our values, commitment (...) understand how to keep this person for a minimum time that makes sense to us. So, today we have a very mature model of volunteering that really adds to Litro and to the person, it is an exchange that makes a lot of sense, but we struggled a lot to get, to find this balance.”

New product development. In this phase, Litro de Luz developed a new product called Lampião, a portable solution capable of lighting both internal and external environments. This new solution was developed for remote places, like the riverside communities in the Amazon. With the Lampião, the solution portfolio of Litro de Luz is composed of three solutions: the lamppost, that provides light for public areas, and consists of a combination of PET bottle, solar panel, battery, LED lamps and PVC pipe; the Moser lamp, the original solution developed by Moser that works only during the day

and consists of a PET bottle, water, and bleach and the Lampião, made of PET bottle, solar panel, battery, LED lamps and a PVC pipe.

New awards and establishing the business model. In 2017, Litro de Luz received a grant of BRL50.000 from Fundação Banco do Brasil de Tecnologia Social, after winning in the category of sustainable cities and digital innovation. The grants and donations helped Litro de Luz fund their operations, but they were focusing their efforts into developing a more stable income focused on the service offerings for companies.

“at first we relied a lot on punctual donation, we could not hire anyone, so it was very difficult to professionalize things, we had many volunteers, and it was difficult to work with everyone for enough time, at the same time without anyone hired, and without having a very clear model, it was all a mess, we had to understand each other and make a model that worked, then find a model (...) we realized that companies have an interest in corporate volunteering and workshop, which is another thing that we do, (...) the company, for example, makes a workshop of 50 lampiões with their employees, it fund the materials, and then we take to a community. So that's another thing we do a lot. (...) to realize that companies had interest, that they would pay for it, how much they would pay for it, it took some time, like, two years, at least for us to have this more structured and know how much we would charge and such, and get partnerships and grow, so this part of finding the model and getting a client, was very difficult.”

The main clients ended up being the electricity distribution concessionaries, due to the national energy efficiency program created by The Brazilian Electricity Regulatory Agency (ANEEL) that determines that part of the profit of each concessionary be invested towards projects that demonstrate the importance and economic viability of improving the energy efficiency of equipment, processes, and final uses of energy. The goal of this legislation is to maximize the public benefits of energy saved and avoided demand, promoting the transformation of the energy efficiency market, stimulating the development of new technologies and the creation of rational habits and practices for the use of electricity (ANEEL, 2020).

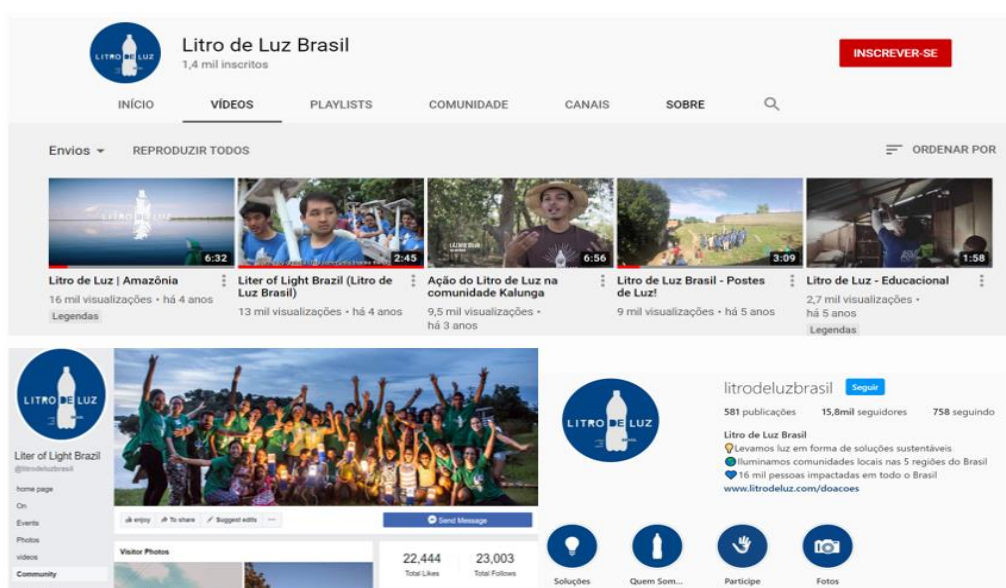
Media exposure and advertising materials. Litro de Luz continue to count with professional photographers and filmmakers to produce quality audiovisual material to be used in the organization's media platforms, their own website, YouTube channel,

Facebook page and Instagram account, and awards and commercial presentations for fundraising. Belota highlighted the video production during their first operations in the Kalunga quilombola community and in Amazonas as a key factor to increase the organization awareness and media exposure.

“we took a friend of mine, Bruna, that is a filmmaker for Canal Off, she made a video, so beautiful for us. And we used this video for many years, to this day so ... Bruna's made a lot of our videos. In the actions with the Kalunga, Bruna went to shoot, in the second action of the Amazon, Bruna went to shoot, and then our videos were of such quality that attract Globo (...) Globo showed our videos in local newspapers, then in the second action of Amazonas, Globo took a team of Fantástico, the team stayed there with us, sleeping with us, filming.”

Litro de Luz was featured in multiple television programs of Brazil's largest television network, Globo, and in multiple local and national newspapers. According to the Ibope data, the organization estimates that around 50 million people were reached through Litro de Luz media appearances. As of the end of 2020, the organization had over 23.000 followers on Facebook, 15.000 on Instagram and 1.400 on YouTube, as portrayed in Figure 9. The videos made covering the Amazon and the Kalunga actions have over 16.000 and 9.500 views, respectively

Figure 9 - Litro de Luz Social Media Pages



Note. Retrieved from Litro de Luz's Facebook, Instagram and Youtube pages.

Alongside the growing exposure of the organization in the media associated with the lectures and TED presentations of the organization's founder, Belota, were attracting new volunteers and spreading the organization through the country.

"In my day, like, there was no one wanting to volunteer, because that no one knew much... When Laís took office, we were very big from the point of view of people seeking the organization, because (...) TED opened many doors for me to give lectures all over Brazil ... So, we even joked about it at the time, which was like this, I gave a lecture, for, I don't know, 400 people in Santa Maria, the other day there were about 20 people wanting to open a cell in Santa Maria. And that was helping us a lot, so, for example, we opened a cell in the northeast, we have a cell in Paraíba, which was a cell that was opened because of a lecture that I gave there."

A community based operational model and a certified social development methodology. From 2016 to 2017, the organization developed their own methodology called "O Nosso Jeito". Their social development methodology, that was certified by Fundação Banco do Brasil encompass the processes of search, selection, relationship building and action that take place within the communities served with Litro de Luz lighting solutions. The process is divided into four phases: prospection and selection; local approach; leadership strengthening; action, celebration, and analysis.

The first phase consists in prospecting and identifying potential communities. In order to map potential communities to operate in, Litro de Luz count with recommendations from partner NGOs, suggestions from companies that hire their services and even personal recommendations by community members.

"we map them because people indicate, so, I don't know, someone comes on our Facebook and suggest, but often we look through other NGOs partnerships. So TETO, for example, is our super partner, they already worked with several communities (..) they indicate to us, "such community needs light, we already know the leadership", and such, and then it facilitates our work. We do the same with other organizations, like, in the Amazon and such, we always talk to other NGOs that work there. And then, sometimes too, like we do... We also sell services to Companies. So, for example, the company has a plant, a factory, like, in the interior of Bahia, which has communities around it that need lighting. Then we go there, like, do our normal work of social development, engagement, and installation of solutions, and ends up improving the relationship of the company with the residents too."

The communities are then analyzed considering legal aspects, the community real needs, if the solar energy solutions offered by them are adequate to address the demands and the interest of residents to participate in the process. The methodology includes analysis frameworks that are filled in with information from both the residents or local organizations and volunteers from Litro de Luz. The frameworks are used to classify communities regarding impact opportunities and risks.

Afterwards, Litro starts to build a relationship with the approved communities through presentations and meetings the community becomes more aware and involved in the process, while the volunteers immerse themselves in the community to understand the routine of the community and their real needs and pain points. During this phase, the organization develop a proposal for the community and invite the more engaged residents to become ambassadors.

Ambassadors are essential to maintain a relationship before, during and after the action. These residents become the direct channel of communication between volunteers and the community. During phase three, they develop their communication skills, empathy, leadership and are trained by specialized technicians of the organization, who teach not only how to fix small defects in the use of these products, but also to protect themselves so that accidents do not occur. Higashi highlights the importance of establishing a connection with the community, engaging and empowering residents who, together with the organization take care of the installed solutions daily, providing an effective solution and operation.

“we discovered that it is necessary to form ambassadors in the community who are representatives of the Liter of Light to do maintenance, to really empower the solution, take care of the solution, to act as points of communication between us and the community, so we developed a methodology of social development that involves the creation of ambassadors, inside of the community, to build the solutions.”

The fourth phase focuses on the preparations and the installation of the solutions. During this phase there is the delivery and installation of solutions in the community, a celebration with the community, this moment is used to signalize the commitment of all with the residents and especially the ambassadors with the installed solutions and the

organization. The final step of the methodology is to monitor the solution through regular visits and communication with the ambassadors, analyze the results and develop insights to improve the operation. The methodology developed by Litro de Luz was made to be replicated in different contexts and with communities of different nature and culture.

Hybrid organizational structure. In 2018, a new organizational change took place in the organization. Litro de Luz hired their first staff member. The hired team of five people consists of an intern, a commercial manager, the president and two vice presidents, one in charge of human resources and the other one in charge of operations and technology. The four other board members remain as volunteers and are responsible for the legal, financial, social development and marketing departments. The organization also counts with an advisory board with 7 members, including Vitor Belota, Litro de Luz's founder. The decision to hire part of the staff was an important step to support the organization growth.

“We are still undertaking, so it is difficult this matter of retention and attraction of qualified people to make the Litro de Luz grow, because without good people, it is very difficult for you to grow.”

Creation of new cells and expansion throughout the country. New cells are created, reaching out to a total of six spread across the five regions of Brazil, Florianópolis in the south, São Paulo and Rio de Janeiro, in the southeast, Brasília, in the center-west, Manaus, in the north and Campina Grande in the northeast. The cells organize and manage local operations being responsible for the contact with the communities, diagnosis of the community lighting needs, training for the production and maintenance of the products, and installation of the solutions. Up to 2019, Litro de Luz organized actions in 121 communities across the country, as showed in Figure 10, including actions in remote communities, like the indigenous community of Morro dos Cavalos, located in the district of Palhoças in Santa Catarina, a quilombola community in the region of Cavalcante, Goiás, Amazonian riverside communities and villages in the northeastern “sertão”. The expansion of Litro de Luz operation can be perceived in the data organized in Table 5.

Figure 10 - Location of Litro de Luz's operations throughout Brazil



Source: Litro de Luz, 2020.

Table 5 - Litro de Luz Operation Growth

	2016	2017	2018	2019	Total 2014 - 2019
Installed Solutions	130	667	1.045	1.125	2.995
Communities	3	17	75	24	121
People Impacted	440	2.731	6.544	6.000	16.000
Ambassadors	1	50	69	66	186

Note. Organized by the Author based on data from Litro de Luz annual reports.

2020 and the Coronavirus pandemic. During the coronavirus pandemic in 2020, Litro de Luz had to stop its in loco activities in March, after carrying out two operations in Rio de Janeiro. However, in this period, they started campaigns to raise hygiene products, food, and water for 29 partner communities. During their crowdfunding campaign, “Litro de Luz pelas Comunidades”, they raised over BRL30.000 that were used for the distribution of 313 basic food baskets and 800 food stamps to 1.113 families throughout Brazil using their local ambassador network.

In an effort to connect their lighting solutions with the communities during the pandemic, Litro de Luz started an action called “Monte Sua Luz”, with the creation of a manual for the construction of the portable solution, Lampião, available for free online. It also started online workshops that teach people to assemble the Lampião. The materials were delivered to people’s houses and the assembled products were collected by the cells after a few days. The online workshops were a way to collect donations, engage society and create portable solutions that will be later delivered to their partner communities.

4.2.3 Vision for the Future

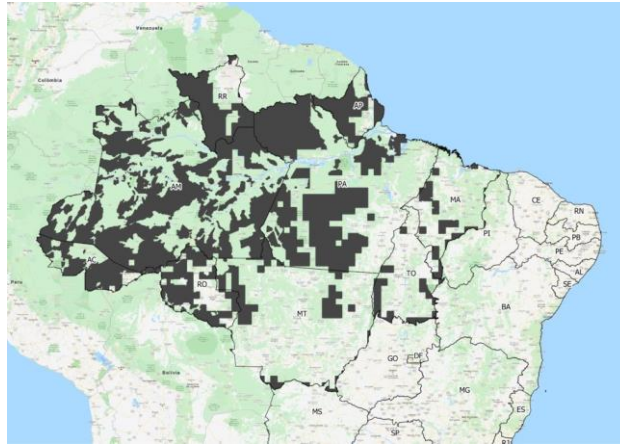
Reaching remote communities. A recent analysis by IEMA (2019) estimates that around 1 million people have no access to electricity in Brazil. Most of them located in the Amazon region, as showed in Figure 11 Higashi highlighted the Amazon communities as their main focus going forward.

“the difference is that now we do not necessarily need to get to other states, but rather reach more communities that do not have energy, that need more and that are often more isolated from the Amazon region. So, our focus is kind of in this region, to expand there.”

Belota, currently part of the advisory board, also declares that the focus going forward should be in the small remote communities that are often overlooked by the public power and hardly ever are contemplated in public policies.

“For me our focus is not to work in slums, our focus is to work in riverside communities, it is to work in quilombola communities, there for those 2%, 3%, which are not big enough for the public power to look at, are not big enough for this to be a relevant social problem of public policy, but it is a population that is unassisted and that often no one is looking and that we ... Someone has to look.”

Figure 11 - Territories with no access to electricity



Source: IEMA website, November 2019.

Permanent solutions. Higashi also identifies a second move for the future of Litro de Luz working with their network of communities to articulate with the government to ensure the population access to electricity and public lighting.

“Our solution is a temporary solution, (...) and it's just light, it's not like you're electrifying a house, so you can turn on a refrigerator and stuff. So, we... These other benefits they are really the responsibility of the government and it makes a lot more sense for us to help them get that right, you know? So, we are leaving for a new moment when we bring light, but we will try, together with the community later, to bring the energy or bring the public lighting (...) has a much more long-term impact, that before we weren't even considering.”

Going beyond electricity. Another possibility for the organization is to expand their activities beyond solar light technologies and provide solutions in other areas. Higashi declares that the organization has already been trying to validate other solutions and that it's part of their plans in 2021.

“We've been trying for a while to validate some other solution outside lighting, and in 2021 it's going to be a year to really put this more in check.”

For Belota, Litro de Luz's next step will rely heavily on the technological development of the organization. He even highlighted that other chapters of the Liter of Light movement have already established hybrid models bringing not only light but also internet to the communities.

“I feel that the future of Liter of Light, for me at least, is a very great improvement of our technology and the possibilities of this technology, what this technology does, so for me maybe it is no longer just take the specific lighting, but sometimes take internet, take ... Anyway, there are some models that are hybrids in this way, but how do we manage to take technology, especially lighting, always, but technology as a whole.”

4.3 Projeto RUAS

In March 2020, the estimated number of homeless people in Brazil was 221.869, from which more than half is located in the southeast region (Natalino, 2020). Based in Rio de Janeiro, Projeto RUAS provides support and assistance to the local homeless population with the goal of removing barriers and generating opportunities for the population in homelessness situation.

The NGO engages the local communities by promoting workshops to discuss the situation of the homeless population in the neighborhoods and then train residents to contribute weekly with activities on their area and acts as a facilitator, connecting the homeless population with several existing services for the development of their full citizenship, such as access to documentation, job search, family reconnection and housing connecting them with rehabilitation centers for dependents, public defenders, and social workers. The organization also works to increase awareness regarding the issue and articulate with other organizations to lobby for government action.

4.3.1 Creation and Early Operation (2014 – 2017)

Projeto RUAS an acronym for Ronda Urbana de Amigos Solidários, was founded by four friends, Alini Fernandes, Bruno Valente, Deborah Barrocas and Murilo Sabino. The idea to start the project came after Sabino joined a group of friends that went to the streets of downtown Rio de Janeiro to distribute food for those who were starving. In an interview for the newspaper O Globo in 2018, Sabino shared that RUAS started in the social media to collect donations for the distributions that were coordinated by a group of friends.

“six months, twice a week. Like everything in life, when you do it with recurrence, you learn, you start to understand the social role, to perceive patterns... I saw the opportunity to do it in a more structured way. We took bread from the mangueira hill, mortadela from my friend's father's restaurant, bought juice, bar soap and made kits. I suggested to stop spending our money and incorporate more donations. We had to advertise what we were doing. For social media, we needed a name. RUAS (Ronda Urbana de Amigos Solidários) emerged. We put the project on Instagram, people started to enjoy, likes were growing, and more than donations came people wanting to participate. We started to create a process to absorb these volunteers.”

In September 2014, RUAS was born with an itinerant distribution of kits composed of food and hygiene products to the homeless population in the neighborhoods of the south zone of Rio de Janeiro.

The start of a new operation, network building and sharing knowledge. Early on they realized that, more than food, the homeless population longed for attention. From then on, they started transforming their project to promote the well-being and citizenship of the homeless population. During the first six months of RUAS, the team reached out to NGOs and other organizations that worked with the homeless population to develop best practices and processes to provide aid for their attendees. They continued to use social media, especially Instagram, to share stories, raise awareness and demystify the reality of the homeless population, as showed in Figure 12. In April 2015, the RUAS team assisted their first attendee to get documentation, medical treatment and move to a rehabilitation house.

Figure 12 - Post from the Projeto RUAS Instagram Account from April 2015



Source. Retrieved from Projeto RUAS Instagram post of 22nd of April of 2015.

Developing a fixed model of operation. In October 2015, the project expanded to Botafogo with the creation of weekly meetings with fixed time and location. The goal was to create a space of connection between the homeless population and the residents of its surroundings, through activities that seek to strengthen the autonomy and self-esteem of this population. There was also the distribution of food, clothes, and personal hygiene products to address punctual needs, however the main objective of the project was to provide information and to stimulate and facilitate the choices of this population, improving their quality of life. During the meetings, a group of local volunteers interacted with the attendees following a discussion methodology that encompass topics like self-esteem, autonomy, family ties, chemical dependence, and unemployment. The fixed model allowed the team to have higher visibility and deepen the relationship between volunteers and attendees.

Local expansion of Rondas. In December 2015, the original itinerant Ronda establishes a fixed location in Leblon. Just like the one in Botafogo, the team was composed of residents of the area and had autonomy to build local partnerships and collect donations. In May 2017, a new Ronda is established in Copacabana, another neighborhood in the south zone of Rio de Janeiro following the same model and methodology of the previous ones. The geographical expansion of Rondas follows the incidence of both volunteers and homeless population as explained by Larissa Montel, manager of Projeto RUAS.

“to select the neighborhoods, we followed the subway line and identified there where we already had incidence, both volunteering, and homeless population. So, we started in Leblon, from Leblon we went there to Botafogo, that we already had a great incidence of volunteering, of people willing to volunteer... Then we went to Copacabana, which had a large incidence of homeless people, and then Largo do Machado was a neighborhood that was much requested by volunteers already, and also that we perceived an incidence of homeless population. We thought... Because we have this model of scalability, so the idea would be to or keep following, and then... Catete, Gloria, Lapa, Centro... Or go to Tijuca, because Tijuca also had a high incidence, both of homeless people and of available volunteers”.

The methodology of Rondas. Every Ronda is divided in three stages, the first is the meeting with the volunteers on site where they receive complementary orientation by the NGO, this moment helps to break stereotypes about homeless population and align the mission and values of the organization with all who will participate in the activity. The second stage is the street attendance, when everyone arrives at a location previously combined and fixed, have a shared meal between volunteers and people in homelessness situation. This is a moment of individual contact, where the volunteers make the registrations and follow-up of the services. The third stage is the discussion circle. This dynamic facilitated by volunteers or multidisciplinary professionals, conducting activities scheduled for the development and strengthening of autonomy and self-esteem of the serviced, involving health, art, culture and technology. It is an open space for empathic listening and exchanging experiences. At the end of each round, there is a moment of group reflection, where feedback is captured from each participating volunteer and reports and updates are passed to all present. Successful activities from a specific Ronda are shared and replicated to others. In an interview for the magazine *Veja* in December 2016, Barrocas highlighted how the Rondas also aided attendees in practical issues.

"We do circles of conversation on various subjects and take professionals, such as psychologists and sociologists, to give lectures (...) We help them get documents, we look for rehabilitation centers, jobs, and we even call someone when they ask."

Formalization as an NGO. In January 2016, through a partnership between Projeto RUAS, FGV and a law office, the first steps towards the creation of a statute and formalization of RUAS as an NGO are taken. In August 2016, RUAS became a registered

NGO and started developing the technological infrastructure necessary for its next growth stage.

Developing new projects. Through demands identified during the Rondas, two other programs were developed by the NGO in the end of 2016, “Jovens” and “Reintegra e Reforma”. The first one started as an adaptation of Rondas focused on children and teenagers that started participating in the Rondas activities, initially it was centered on the development of parallel and child-specific dynamics, later on the Jovens program began to gradually expand its performance encompassing areas like family reconnection, cultural integration and networking, the project support young people in their search for documentation, free teaching and psychological follow-up by public services..

Like the Jovens program, Reintegra e Reforma (RR) emerged in RUAS based on demands that extrapolated the space and format of the Rondas. In 2016, a group of volunteers began to organize these demands, mainly focused on chemical dependency treatment and social reintegration, such as referral to therapeutic communities, job search and family connections. The goal of RR was to be a support system for the attendees who wished to get off the streets or treat their substance addiction. The NGO worked as facilitators, showing existing public and private services and available options. The focus were the therapeutic communities, that have a very low success rate.

Housing First, moving towards a long-lasting impact. In 2016, another pilot project was initiated by Projeto RUAS. Based on the international methodology called Housing First, the focus of the Habitação Primeiro program is to supply selected attendees with their basic needs in the form of individualized permanent housing, food, and additional services. This approach builds on the fact that only by having their basic needs fulfilled, people are capable of addressing other issues related to employment, addiction or finances. This methodology has already been employed in the United States, Canada, Australia, Japan and Europe, becoming even a public policy.

“Minha história conta” campaign. In 2017, RUAS produced 20 videos with the goal of fostering debates about the condition of the homeless population. Through video reports, complemented with data and research, and discussing topics such addiction,

unemployment, family, education, migration, sexism, and mental health. The videos are one of the tools to present the reality of the homeless population and change the perception of the general public, raise awareness and seek partnerships and volunteers.

Expansion to Maceió. In August 2017, the organization attempted its first expansion outside of Rio de Janeiro. The project started like the previous Rondas with a recruitment campaign for local volunteers in social networks, however, the project in Maceió suffered from mission drift and was cancelled after a year, as confirmed by Montel.

"We stayed a year in Maceió, and it happened a lot, a real misunderstanding of the function that we were there to occupy. (...) RUAS started in a very organic way. And then we had a very decentralized format and open to new initiatives... And the volunteers were creating. They were creating, they were creating, and that generated some problems, because people sometimes acted according to their impulse (...) Much in the passion, thus, of making a change, but sometimes they put at risk, put the institution at risk, sometimes put even an attendee at risk."

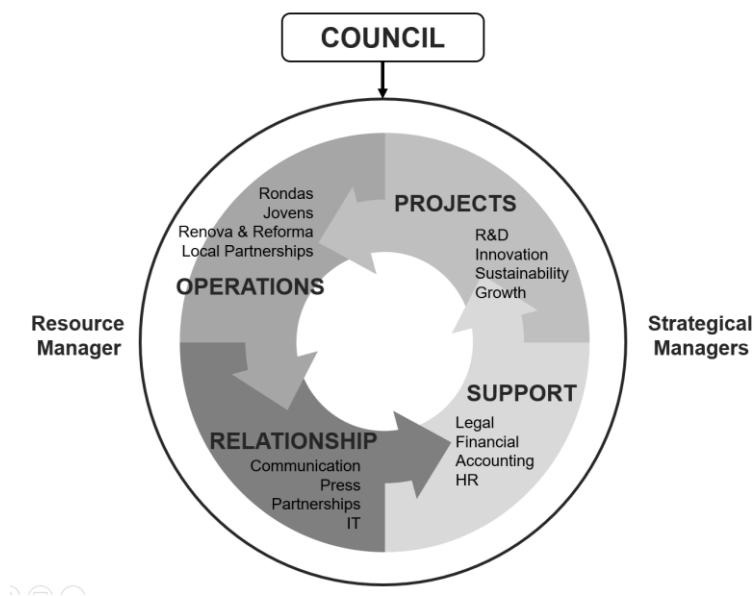
4.3.2 Strategic Planning and the development of a new structure to support growth (2018 – 2020)

Organizational structure. In 2018 the organization went through a restructuration. The new organizational structure, portrayed in Figure 13, counts with four departments, called cells. The four cells are: Operations, responsible for the local partnerships and the existing programs (Rondas, RR and Jovens); Relationship, in charge of communication, press, partnerships, training programs and IT; Support, responsible for legal, financial, and human resources; Projects, responsible for R&D, innovation, sustainability and expansion. The four cells are managed by three hired professionals working full-time and a volunteer administrative council composed of the four founders.

The decision to build a fixed staff group of 3 in 2018 was a strategic decision for the expansion of RUAS and its impact, increasing fundraising, strengthening partnerships and increasing the visibility of the project (Annual Report, 2018). According to Montel that started in the organization as a volunteer in the middle of 2016 and became part of the hired staff, this movement represented a key strategic step towards RUAS's growth.

“investment in hiring, so, so having people dedicated full time to the organization makes a lot of difference, right? We were coming... The organization started as an initiative of friends, a project of friends, and then we went professionalizing, and had these employees, people who study the theme, people who empower themselves, and can dedicate their time even in a more targeted way, I believe it made a lot of difference to our growth, made a lot of difference to our impact, for the impact that we generate today.”

Figure 13 - Organizational Structure Projeto RUAS



Note. Adapted from Projeto RUAS 2019 Annual Report

Funding. The organization funds its operations through a combination of punctual and recurrent donations, from both individuals called virtual volunteers and companies, partnerships, that contribute with products and services, fundraising events and a crowdfunding campaign focused on the Housing First pilot operation. Mondel highlights the contribution of the partnership model not only for funding but also to strengthen the engagement between the local community and the organization.

“most of the partnerships that we have are partnerships by neighborhood, (...) usually are people who live in that neighborhood, she goes to get, “ah, a soup partnership”, which sometimes she knows, like, uh, “I do gym with the son of the guy who owns that business”, you know? And it is making these bonds that are strong networks like this, are partnerships that form

and that create this network that operates. And we have some slightly more strategic partnerships, right? From the design part... We have our recurring crowdfunding campaign, which is a donation of individuals, we have a partnership, for example, with the Duo Carioca, that organizes events (...) We have very nice partnerships with the private sector, and this thing of community engagement, not only for volunteering, but also for maintenance, for the financial sustainability of the organization.”

Social Media and Media Exposure. Social media has been a key platform for RUAS expansion since its inception. Projeto RUAS uses the social media to engage volunteers, donors and raise awareness and visibility for the homeless population. Before expanding to a new area, they arrange an open call to attract residents of the neighborhood. By the end of 2020, RUAS had over 20 thousand followers on Instagram and 15 thousand on Facebook.

“when we open a new neighborhood, we usually make a call with the residents of that neighborhood, that, look, we arrived, “Tijuca, we arrived”, and then we do a training event, in which we try to get, already a first (...) We try to get a fixed team to start these jobs, right? So that... We have there a base team to assemble logistics, assemble the first contacts, the search for partnerships ...”

Developing a strategical plan. In 2019, the council of RUAS conducted the first strategic planning of the organization to define their objectives and activities for the next two years. According to the strategical map developed by the organization showed in Figure 14, the focus of the organization would be to increase and deepen their impact through territorial expansion and leveraging initiatives with greater transformation potential, that build opportunities for the homeless population like housing first. Another key goal was focused on increasing society awareness and influence public policies using the knowledge and data collected from their operations.

“We created a strategical plan, it helped a lot in the work, because we said, “ok, this is where we want to get to”. So we start to walk a path to get here. We start making plans, steps, goals... Divide these goals by areas... We created areas within the RUAS, with the leaders, invested a lot in training, training on the organization, training on the cause, technical training... We invest a lot in training... We create routines, meeting routine, meeting routine, alignment routine... These processes all made a lot of difference for us to be able to continue generating social impact and be able to see this impact in a more concrete way.”

Figure 14 - Projeto RUAS Strategic Map



Source. 2019 Annual Report

Structuring the volunteer program. After the strategic planning, a few changes were made in the volunteer program. First, the standardization of the volunteer capacitation with the creation of an online system for registration, a training video, and the creation of the code of conduct and a matrix of roles and responsibilities, the first guides the individual performance within the group and the second enables an understanding of the limits of action within the organization. The development of a structured and standardized model for volunteering is part of the foundation needed to support their goal of increasing geographic coverage and becoming a social franchise. For Montel, the structuring of the volunteer program is an important step to reduce the risk of mission drift while maintaining the autonomous characteristic of the project.

“we created a code of conduct, and the code of conduct is one of the materials that we always use in our training, even as a form... First of trying to work people's eyes, trying to work that is it, no, you are not going to save that person's life, you know? You do not have to take it and get the person off the street, anyway, we are not there to get anyone off the street, we're there to offer opportunity. So, work this look first, and then also for us to have a legal guarantee, that the person is taking responsibility for their acts, informed she was, empowered she was. If she wants to act out... And then having these materials helped a lot to decrease, so today people consult a lot more, before they have an action, before they do something like that kind of on impulse, they consult. I think that the creation of a network that we made also helps so that these impulsive actions are coied, or are, thus, diminished in the process, in short.”

Structuring and standardizing the Rondas. To ensure that the Rondas become easily replicable, RUAS invested in a process of standardization of the dynamics, creating a process for local partnerships, investing in the capacitation and training of the facilitators of the Rondas and developing a system of registration and search for the activities performed, this database allows the replication of successful dynamics across different locations and with different groups. Montel highlights the importance of the standardize structure of the Ronda to allow the replication.

“It uses a format, usually revolves around volunteer for it to be replicated. So, the Ronda, this format that we have of the Ronda, that this can only be replicated to other neighborhoods, to other cities, to other states ... If we hired one person for each round, it would be unsustainable, right? So we make a leaner format even, to enable this volunteering, and then we have these neighborhood centers in which people take over functions, take care of logistics ... Today we do not have to be in action, do we? On a

round for it to happen. Because we provide training, materials, partnerships... And then the round goes on to rhythm.”

Network and lobbying. Since its inception, RUAS has partnered with other actors to achieve higher impact. In 2018, it developed “Mapa de Apoio”, an online tool that facilitates the search for existing services related to the homeless population. In this tool available in RUAS website they map over 327 services divided into 10 categories: health, mental health, addiction, housing, education, legal counseling, women aid, children aid, elderly and NGOs. Mapa de Apoio is an initiative to leverage on the network, connect solutions and attendees, increasing the network impact.

In 2019, Projeto RUAS started the creation of a work group for case studies around Largo do Machado and the south zone of Rio de Janeiro, joining the Rio Criança Network, a national reference articulation in the work and defense of human rights of children and adolescents living in homelessness situation, set up in 2001 and composed of 11 social organizations. They also participate in integrated action groups, such as the “GT Pop Rua” with a focus on documentation and housing, the “Fórum Permanente sobre população adulta em situação de rua do RJ”, a group of political articulation that has been operating for almost 20 years and NAEH created by the Brazilian Red Cross, with the objective of bringing together organizations that work with chemical dependence, mental and homeless population, In these work groups they discuss experiences, projects and public policies.

“We have a network, so today we are part of two groups, one is a state forum of adult populations in street situation, I am part of the coordination of this forum as representative of RUAS. So, I have monthly meetings and we will debate public policies, we will debate what is being built for homeless people throughout the state of RJ, and this already leaves us connected with a network there, right? From other organizations. And we are part of a group called GT Pop Rua, which was created by the Public Defender's Office of the state, which brings together several NGOs, various initiatives, which work in populations in street situation... And then, again, pre-pandemic, right? We used to have monthly meetings, also to debate... Thus, discuss the practices of each organization, present papers... We have a lot of dialogue with the powers... With public services... We work... It is part of some working groups of case studies, of common care, because we have attendees that go through all these services, through all this equipment, and then we have some meetings of case study, profile monitoring. And then eventually we do actions in partnerships with other NGOs too.”

PDI methodology. In 2019, RR was restructured to include a PDI (Individual Development Plan), a methodology widely used in companies, and usually linked to a specific objective: a promotion, a personal achievement, a change in organization. The PDI creates an action plan focused on the personal goal, mapping strengths and obstacles. The purpose of the PDI is to transform the attendee's dreams in something attainable and concrete. The model also counts with a division of team tasks, strengthening the action in the rounds and training. With around 16 fixed volunteers, the new RR methodology was implemented in November 2019 with 7 pilot cases for follow-up.

“we started to develop individual development plan, which we call PDI, which is a little to go beyond the space of the Ronda, but trying to work these other needs that arise, from documentation, job search, family reconnection ... So we have the Active PDI, which has the context of housing too, but it was a gastronomy course, she wanted to go back to being a cook, and then we got this connection, for her to participate in the selection process, but for her to get the course, housing was a prerequisite, then we entered with the house, she started to do the gastronomy course, and we have been doing this follow-up”

2020 and the coronavirus pandemic. During the 2020 pandemic, Projeto RUAS replaced its traditional activities with 53 emergency actions starting in May, 50 of them in their traditional locations and 3 in a new neighborhood of Rio de Janeiro, Tijuca. In the emergency actions, a total of 36 volunteers and 31 partner institutions distributed masks, meals, water, hygiene kits and blankets to 2.680 attendees. Some actions also had legal and medical consultations, haircuts, and baths. Alongside the emergency actions, Projeto RUAS started a national online movement, called #POPRUAEUMEIMPORTO. The movement counted with instructions regarding the creation of donation stations, hygiene and food kits and an infographic to inform people in homelessness situation of the risks and symptoms of coronavirus and sharing protective measures. The guide also included a protocol for the volunteers regarding their behavior and sanitary protective measures. The NGO also developed a map with multiple donation stations registered by volunteers, so that other participants could contribute, by the end of 2020, there were 84 registered donation stations spread across 7 states of Brazil.

4.3.3 Vision for the future

Technology for replication. One of the main future projects for RUAS is the replication of the model through a social franchising strategy. Montel states that the first action for RUAS will be to reinvest in the scalability of the program. To achieve a replicable model, she believes that the organization must invest in materials and technologies to

“we want to automate this process to the fullest so that it continues to work well ... So, for example, we have a volunteer scheduling system, we have a system where these materials could be available, videos, reading materials... For us to try... Because I think it is difficulty (...) to keep the essence. So, so, a great difficulty that we have to be able to climb is how we scale with quality, maintaining the essence of what we are here to do, because it is very easy, so in the performance with the population in street situation we end up resorting to what we usually see, resources, then falling into a very assistance place (...) how do you create tools for this essence to be maintained, even if we are not in these spaces, right? And then the technology comes in, we think a lot about using technology, as a platform, as a type of system, that can provide the resources so that this essence is maintained(...) we think a lot about the resumption of the Rondas post-vaccine, so we want to reinvest in this scalability, to be able to have rounds in other neighborhoods, and today the work that thinks about doing it, how we create these materials, creates these technologies, so that the round can be replicable, maintaining this essence, then work this challenge, so that in a post-pandemic scenario we can start climbing in a much broader way so , then start creating 10 rounds, 15 rounds, anyway... This is one of the paths that we see as possible...”

Working with the government. In the process to achieve deeper impact, RUAS identified Housing First as one of the initiatives with largest transformation potential and the importance of partnership with the government and pressure por public policies regarding the right to housing.

“To deepen this issue of housing also, so we try to make a more robust housing project, housing first, with more cases of study... We maintain our political incidence, our performance in the forums, in these spaces too, to follow what has been done, and see RUAS as a reference space as well. I think that in the debate about the homeless population, in this education about the homeless population, in this breaking of stereotypes, in the generation of data, maybe, too, it is a path that we see as possible... You know, from research.”

5 DISCUSSION AND CROSS-CASE SYNTHESIS

In this section we will discuss the trajectory of the two organizations through the propositions and dimensions identified previously in chapter 2. We will use the dimensions of analysis to try to answer the following questions for both case studies.

- What are the possible scaling strategies of social initiatives?
- What are the drivers of the scaling process?
- What are the factors that can limit or prevent social initiatives to scale?
- What are the external and internal factors that influence or determine the strategy selection?

5.1 Scaling Impact

As discussed in section 2.1, scaling impact encompass both quantitative and qualitative expansion. Scaling is not only growth in terms of size, geographic expansion, or number of people but also in terms of the number of spin-offs created, and the number of projects that have been created or taken over by other actors (Uvin, Jain & Brown, 2000; Desa and Koch, 2014; Bradach, 2010).

Quantitative scaling focus on expanding geographically or in number of beneficiaries and can happen from the expansion of the organization own operation or from the action of a network motivated by the action of the organization (Uvin, Jain & Brown, 2000).

Qualitative scaling, on the other hand, focus on the creation of spin-off activities of products to deepen the impact of the solution for the target audience focusing on not simply serving more individuals or areas, but about improving the service offered to the existing audience (Dees *et al.*, 2004).

Table 6 - Classification of Scaling Initiatives

	Litro de Luz	Projeto RUAS
Qualitative scaling	Lampposts, Lampiões	Jovens, RR, Housing First
Quantitative scaling: ecosystem	Monte sua Luz	#POPRUAEUME IMPORTO
Quantitative scaling: operational	New cells, new communities and regions	New Rondas

Source. Author (2021)

For Litro de Luz, the creation of new cells and the expansion of their operations to new communities across the country are a form of quantitative scaling through operational growth. The same with the creation of new Rondas by Projeto RUAS, in both cases increasing the operation and the operation area led to an increase in number of people impacted by their activities. However, for those quantitative scaling initiatives to be successful, both organizations had to develop multiple internal capabilities, structure the organization's processes and increase the number of funds and staff.

Through open-source projects like the ones both organizations carried out during the coronavirus pandemic, they were able to increase their impact by motivating and engaging others into replicating their activities without needing to expand their own operation. These scaling initiatives focused on ecosystem growth gained more relevance during the year of 2020 due to the local restrictions of the pandemic that limited the NGOs activities, however it also reduced their control over their developed solution and the potential applications, since people were free to use and adapt their open-source solutions.

With the development of new solutions that would have a larger and long-lasting impact into people's lives, like the nighttime technology, the lampposts and the lampiões, Litro de Luz experienced also qualitative scaling. The same can be observed with RUAS with the creation of specialized programs focusing on solving deeper issues, like

substance abuse, unemployment, and housing. In these cases, as Desa and Koch's (2014) work describes, there was a growth in the depth of impact.

Considering the first theoretical proposition, that argues that the category of scaling impact can determine or be limited by the process of scaling impact, and the experience of both organizations, we can obtain a few insights. First, quantitative scaling achieved through organizational growth requires a considerable amount of organization resources. Litro de Luz expansion was only possible due to an increase in financial and human resources. In order to expand through the country and get to perform activities with the riverside communities in Amazon, they needed a team of trained volunteers, local leaders, funds, and a network of partner institutions. The same can be observed with the creation of new Rondas by RUAS, before expanding to a new region the organization dedicates its efforts to build a local engaged volunteer team and to establish partnerships with local businesses to donate material or sponsor the activity. For quantitative scaling through ecosystem growth, like the ones both organizations lead during the pandemic, the main resources were related to communication and network. For both organizations it was an opportunity to increase their impact without logistical restrictions and using a minimum amount of organizational resources. However, measuring impact from ecosystem growth and understanding the growth potential from this type of projects presents a large challenge.

Qualitative scaling is more resource intensive than ecosystem growth, especially in terms of financial resources. A key aspect for qualitative growth is the demand of intellectual resources as it requires a deep knowledge of the existing activities and the target audience along with the development of incremental solutions to address the challenges and the development of new skills, resources and knowledge to implement the solution. In the case of Litro de Luz, technical expertise was necessary for the development of the new solutions, for the lampposts, the existing network and the new partnerships made were necessary to deal with both the technical and financial needs of the development stage, while the development of the portable solutions required also a deep understanding of the needs and the reality of the communities. For RUAS, the spin-offs required intellectual, human, and financial resources. For instance, Jovens and RR

required specific methodologies, multiple volunteers in charge of the project to follow-up with the attendees and to train those volunteers to identify and attend their needs. Housing First, on the other hand, required a large amount of financial resources and the selection of candidates that fitted the program, which required a comprehensive knowledge of the program, the attendees and the requirements.

5.2 Barriers

While pursuing a scaling process, organizations face multiple barriers. The second theoretical proposition identify the main barriers that can prevent or limit the scaling process as limited access to resources, knowledge gaps, fragmented ecosystem, legal restrictions or insufficient political support, ensuring quality and mission-drifting. Despite being from different categories and presenting different structures, both organizations struggled with the same barriers. The limited access to resources proved to be not only a recurrent challenge for both organizations, but also their main concern.

The limited access to financial resources is a recurrent challenge for organizations (Caulier-Grice *et al.*, 2010; Deiglmeier & Greco, 2018), during Litro de Luz trajectory financial sustainability has been identified multiple times as a key challenge. To surpass the financial barrier and diversify their funding strategy they have developed services aimed at companies selling corporate volunteering actions, workshops and sponsored operations, however, financial sustainability remains a challenge.

“We still have a great financial sustainability challenge... Like this, although we have managed to establish a service and such that we sell to companies, it is still not enough for everything we need.”

Having a team with qualified people with the right mindset is already a recurrent issue for organizations, however, dealing with budget constraints makes attracting and maintaining qualified personnel dedicated full time for the organization a bigger challenge. (Frumkin, 2006; Deiglmeier & Greco, 2018; Han & Shah, 2019; Rayna & Striukova, 2019). Higashi, president of Litro de Luz, marks maintaining the hired staff and paying them accordingly as key issue for the organization to move forward.

“in terms of team is a great challenge yes, because the people that entered, Litro has only five people hired, right? And most people, like, an intern and 4 others who risked a lot, so, like, uh, I'm betting on this organization to grow, so that we can also have a career plan, so, perspectives, right? To get better and stuff. And that's very complicated, when you still don't know exactly... It doesn't have as much stability or a clear perspective of how much Litro de Luz will be able to afford.”

For projects with deeper impact, like Housing First by Projeto RUAS, funding is a central challenge. The high costs of the project prevent its scalability especially when associated with the lack of political support.

“In housing has a financial issue and is a matter of public policy interest, because, housing first it is thought to be public policy, and then if there is no interest of the public authorities, it is very difficult to be supported by an NGO, because it could be a partnership, private public, but it be 100% supported by an NGO, it is very difficult to be sustained”

Ensuring quality and avoid mission-drift are main barriers for decentralized scaling processes. For RUAS, that works with a decentralized model with the Rondas, mission-drift became a main concern after experiencing issues with the expansion to Maceió, located in a different region of the country in 2017.

5.3 Organization Resources

In order to overcome the barriers that limit their scaling possibilities, organizations invest in their organizational structure, build networks, diversify their funding and invest in communication to raise awareness, and consequently acquire more funding, volunteers, public and political support (Howaldt *et al.*, 2016). The third dimension is divided in four theoretical propositions, the first one focus on the internal processes of the organization. Developing methodologies, creating selection processes and training for staff members, for both volunteers and hired staff, the organization of departments and the standardization of activities are part of the investments in the organizational structure.

For both RUAS and Litro de Luz investments in the organizational structure, professionalization of the volunteer program and the process of hiring full-time professionals were important to support their next growth stage. The investments in staff selection and training are used to fill any skill gaps and guarantee a fit between the staff and the mission and culture of the organization (Bradach, 2003).

Standardizing the processes of Rondas, developing de PID methodology, the code of conduct and the matrix of roles and responsibilities are all part of RUAS efforts to expand their operation beyond their physical capabilities while avoiding mission drift. For Litro de Luz, the creation and validation of the “Nosso Jeito” methodology was an important step to ensure that the operation in their cell model maintain the same quality standard throughout the country.

The second theoretical proposition in this dimension is related to the communication capability of the organization. Communication efforts allow the organization to reach out to a larger audience, engaging with donors and volunteers. For RUAS, social media was a key platform for the creation and organic expansion of the project and remains a big channel of communication between the organization and the community. For Litro de Luz, the biggest investment was not in social media, but in the audiovisual content and lectures. High quality audiovisual material was always a priority for Belota since the early stages of the organization. They used it commercially for selling their services, to gather donations, participate in awards, attract attention of the media, scout volunteers and show their solutions for potential communities and better explain the purpose of the organization.

“Even this video of this action of São Paulo was a video that I used for many years, I do not even know if I still have this video, but it is a video that I used for many years commercially, so. And... So it was very beautiful (...) our videos were of such quality that attracted Globo, for Globo want to show, so Globo showed our videos in local newspapers, then in the second action of Amazonas the Globe took a team of Fantastico, the team of Fantástico stayed there with us, sleeping with us, filming ... Then we were filmed by the people of Angelica, at the time there, the Estrelas, along

with Father Fábio de Melo, so we always took care to be an NGO ... I can't explain it like that, but we're going to have a marketing anyway, you know? What we do and so on... And we've been at Luciano Huck several times... So all this made us kind of, you know? Go on developing a lot, and this has been making the project grow more and more."

The third proposition is regarding the organization's funding capability. Since funding is a key challenge it is also a priority for the organizations. Litro de Luz tackled this issue by diversifying their revenue source offering paid services for companies. RUAS on the other hand, invested in partnerships, funding events and hired a full-time fundraiser as part of their endeavor to achieve financial stability.

Partnerships can help the organization surpass their own limitations and expand their impact beyond their own capabilities. The fourth proposition is this dimension is regarding networking. The connection between RUAS and other NGOs allowed them to offer to their attendees a broader assistance, for instance due to their connection with hostels and organizations that treat substance abuse, RUAS was able to offer assistance to the attendees beyond the scope of the Rondas. For Litro de Luz, the partnership with other NGOs and community associations allows them to identify potential communities and facilitate the connection with the community.

Connecting with both the public and private spheres can help organizations expand their impact, especially when toward long-lasting deeper impact. For Litro de Luz investing in partnership is necessary to affect energy poverty beyond light.

"it is important to have this connection and that we will not, thus, change the world alone, so it should be a more coordinated thing. We have been talking to the Ministry of Mines and Energy, every year we go there, almost every year, talk to them to understand how are the plans, for example, Light for All, which is the program there to take ... electrify the cities of the country... But now they are with other programs that give more light to the Amazon, which is even more focused on isolated places, which has everything to do with us (...) And we also try to talk to distributors, often

they are the ones who execute these projects, but it is also very difficult, and turns and moves we also have some contact with the city."

RUAS builds a network not only to share knowledge or combine efforts, but also to engage local community, promote awareness for their mission and shift people's perception of homeless population. Through their network, RUAS can strengthen their operation and expand their activities with less in-house growth, and consequently investment.

5.4 Environmental Conditions

Environmental conditions like social economic conditions, and political and economic crises shape and alter an organization action and strategy. A country or region current situation can stimulate or constrain the growth of organizations (Bradach, 2010; Easter & Conway Dato-On, 2015). RUAS and Litro de Luz shared the political and social economical conditions as both organizations lived through the same governments during their existence. However, due to their different activities the influence of the environmental conditions in the organization was different.

RUAS understands that a long lasting and sustainable solution for the issues faced by the homeless populations depends on the participation of the government. Consequently, for RUAS lobbying endeavors to develop public policies toward housing, political conditions are determinant and shift during every political cycle.

It's the right to housing, the right to housing, it's a state responsibility, so I think we're always going to have this place of instigating, of being questioning, and of being open to partnering. I see us today in a political scenario that is not very favorable for this type of debate, but we know that the processes are cyclical too, so... Anyway. Every 4 years we have a new opportunity for renewal.

Litro de Luz's cross-national operation has many challenges due to local and culturally specific characteristics. Consequently, it needs to build local networks and acquire local insights that allow them to adapt, customize and diversify their offerings in

order to produce locally meaningful impact (Smith & Stevens, 2010; Braund & Schwittay, 2016; Guha, 2019). The use of local cells spread out across the country associated with the ambassadors' model and the immersive methodology developed by the organization allow them to build these local networks and customize their offerings. The Lampião, the portable solution developed by Litro de Luz is an example of a solution developed to fit the needs of specific remote communities that had houses distant from each other and consequently would not be well served by the existing solutions of the organization, like the lampposts.

In the year of 2020, due to the coronavirus pandemic, both NGOs had to stop, rethink, and adapt their operations. The social distancing recommendations made working with large volunteer groups, visiting, and meeting with the attendees harder, while the financial consequences of the sanitary crisis deepened Brazil's inequality and created urgent demands specially for the population that are part of the informal workforce (Salum, Coleta & Monteiro, 2020) that represents a large part of the target audience of both organizations. To deal with the ongoing crisis both NGOs invested in online campaigns providing assistance to their communities with donations of food and hygiene products. The environmental conditions resulted from the coronavirus pandemic forced the organizations to adjust their growth strategies and operation to a model that fitted the health recommendations but still assisted their attendees in a period where demand for social aid increased.

5.5 Actor Characteristics

The actor's characteristics determine the logic of the whole scaling process. (Corner & Ho, 2010; Fisher, 2012; Weerakoon, Gales & McMurray, 2019), they not only define if the organization will grow, but also which direction it will take and what scaling strategies they will pursue. During the first stages for both organizations, the lack of resources and structure present a great limitation for the operation and growth, consequently the enterprise, entrepreneurial and leadership skills of the founders had to compensate the initial challenges, identify potential opportunities, and develop the structure to support other growth stages.

In the early stages of RUAS operation, they changed their main purpose from food donation to connection due to the perception of the small group of friends that was in charge of the activities. Deciding to expand to a new location and shifting from an itinerant model to a fixed one were evolutions of the organization that were only possible due to the beliefs and insights of the group. The view of the managing team evolved to include a focus on lobbying endeavors for the creation of public policies that could provide long lasting support to the homeless population.

Litro de Luz growth in the early stages resulted from Belota's enterprise and vision for the organization. His passion and willingness to grow guided the organization to new product offers and new areas. Belota had developed a commercial and fundraising focus that accelerated their growth, while Higashi entrepreneurial skills led to more structured processes and organization. Both shared a similar opinion regarding the balance between social and economic logic that led to their decision of diversifying the revenue stream by including their service offerings. Belota and Higashi similar views for the organization sustainability helped during the leadership transition, while their different capabilities guided the different moments of the organization. Belota focusing on rising brand awareness and addressing the key challenge of fundraising and Higashi with a focus on building a structured process and organization that could support their growth.

"we come from this same school, more or less... And then she also said, "no, that's what I want," and that's when it was, so we always had this idea that Litro de Luz in an ideal setting would be responsible for all its revenue."

In both cases, the abilities of the actors to deal with the barriers and challenges found alongside their willingness to grow and expand the organization despite those challenges that allowed both organizations to become part of the 2,5% of Brazilian NGOs with more than two hired full-time employees in less than 6 years of operation.

5.6 Strategic Pathway

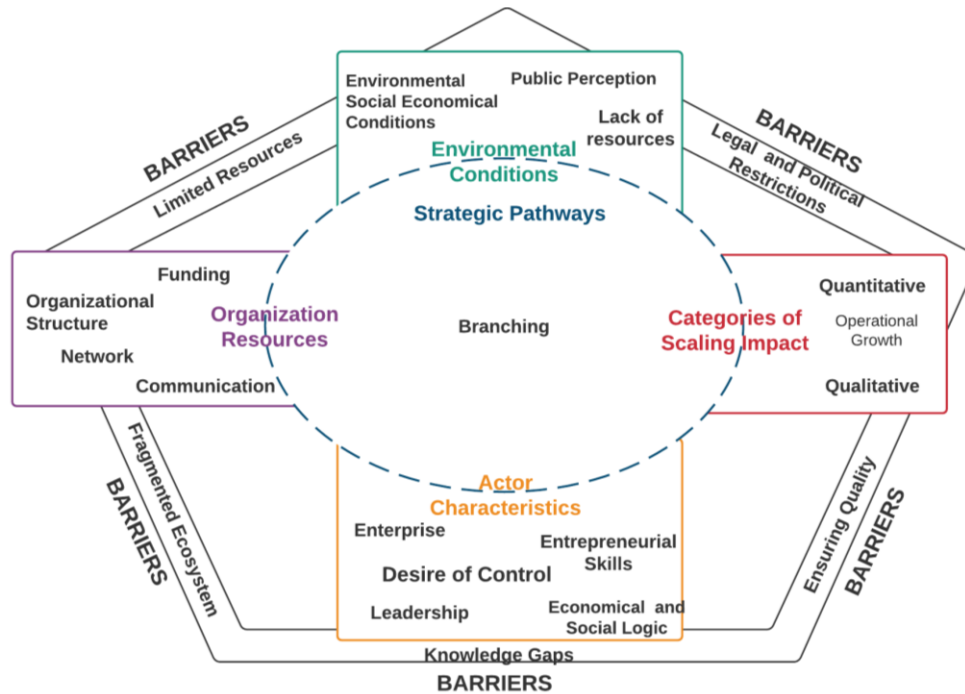
Scaling impact can be achieved by multiple strategies, Dees, Anderson and Weiskillern (2004) presents three categories of classification: dissemination, affiliation, and

branching. As described in chapter 2, section 2.6 dissemination consists in spreading a principle and can happen in two different forms: advocacy or network, affiliation focus on replicating a program through licensing or franchising and branching.

Every strategic pathway requires different levels of resources and capabilities and allows organizations to maintain different levels of control and seed of growth. Throughout the history of both Litro de Luz and Projeto RUAS scaling impact took many forms. The combination of both qualitative and quantitative scaling associated with different strategic pathways allowed both organizations to gain relevance, attract public attention and continuously improve their activities.

Currently, both Litro de Luz and RUAS have focused their scaling initiatives to Branching, maintaining full control of the operation. To sustain their branching initiatives, both organizations have dedicated a lot of time and effort to build the required organizational resources. We can perceive that through the creation of methodologies, standardization and professionalization of processes, the efforts towards building teams of qualified and dedicated staff and the development of diverse funding models, as shown in Figure 15. RUAS vision for the future is to move to a franchising model that could potentially accelerate their expansion and reach out to other locations, however, to achieve such plan there's still multiple organizational resources to be developed.

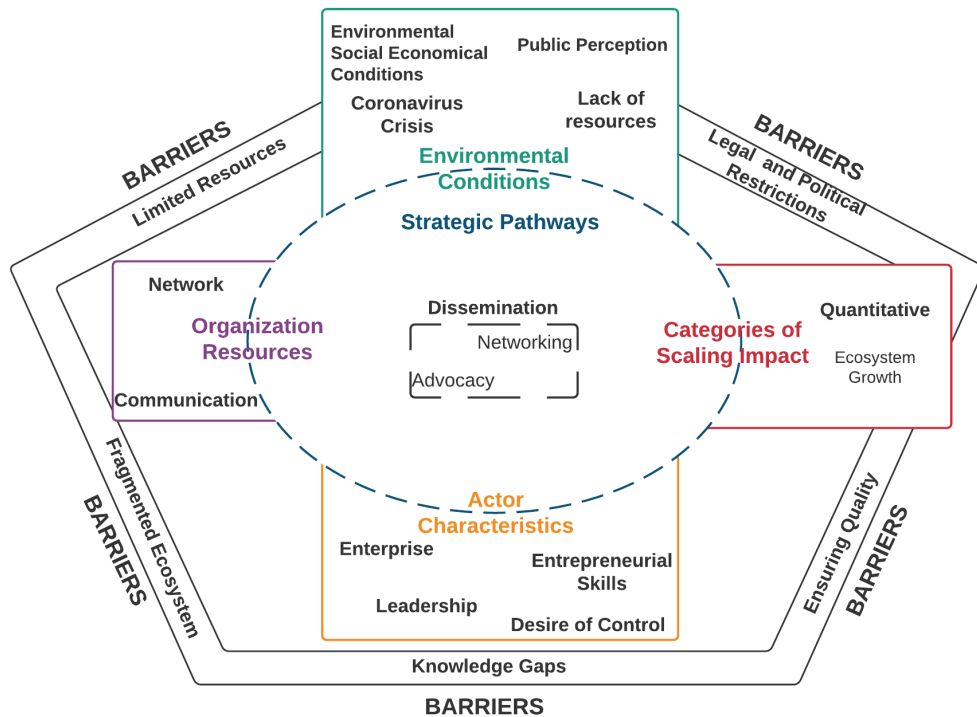
Figure 15 – Branching Pathway



Source Author (2021).

Both organizations communication efforts can be classified as advocacy since this model of scaling is limited to sharing information and encouraging learning. However, even though this strategy can impact other actors indirectly and generate new activities, there is no control over this process and consequently, it is even harder to identify and measure it. Another process that used the dissemination strategy was the open-source initiatives both Litro de Luz and Projeto RUAS started during the coronavirus crisis. This illustrates how the dissemination strategic pathway, as shown in Figure 16, is fitted with scenarios where resources are scarce, there is external restrains to the organization operation or there is a low desire of control from the leadership.

Figure 16 – Dissemination Strategy



Source Author (2021).

6 CONCLUSION AND RECOMENDATIONS

Scaling social impact is dynamic and multidimensional. The literature review indicated multiple factors that are critical to understand the strategies pursued by different organizations. Through the systematic literature review, we could synthesize the existing literature and propose an integrative analysis and framework providing a comprehensive overview of the phenomenon. The developed framework highlights the dynamic, interactive, and complex characteristics of the phenomenon.

The theoretical literature review answered the previously defined research questions that are listed in section 3.1. It identified the possible scaling strategies of social initiatives as branching, affiliation and dissemination, the drivers and limiting factors of the process as the organizational structure, communication, networking, funding skills, access to resources, knowledge gaps, fragmented ecosystem, legal restrictions, insufficient political support, ensuring quality, mission-drifting, the enterprise, entrepreneurial and

leadership skills of the founders and the influence of external pressures that influence strategy selection, as cultural differences and economic crisis. The variables identified through the literature review provided a guide to understand how different actors scale social innovation. Consequently, the dimensions and variables present on the framework guided the case analysis.

The case studies presented and analyzed two organizations that run independently in Brazil. Both cases complement the existing literature of scaling social impact in Brazil by providing relevant examples of distinct NGOs that carried out multiple scaling initiatives throughout their existence. Due to the social economic conditions of the country (World Bank Group, 2016), Brazil presents itself as a relevant context for the development of social innovation and consequently, an interesting research topic not only for national production but also to be used by other developing countries (Anastacio, Filho & Marins, 2018), however it remains an understudied environment (Bataglin, 2017).

Both organizations present a large organizational structure counting with hundreds of volunteers and more than 2 paid employees, 3 in case of RUAS and 5 in Litro de Luz, being part of 2,5% of Brazilian NGOs (IBGE, 2020), an impressive feature especially considering that the organizations have only 6 years of operation. Despite the potential of both organizations as interesting research topic, they were never subject of an in-depth scientific study. Consequently, this case contributes to the existing literature by providing material and examples for the research of social innovation in Brazil.

During the trajectory of both organizations, despite their different categories, program offerings, strategical decisions, and approaches, it was possible to identify how the multiple dimensions and variables were present during their scaling processes. In times where resources were scarcer, and limitations were high, the scaling initiatives were also limited, highly dependent on the main actors and mainly focused in advocacy. With the investment in organization resources, organizations became capable of investing in branching, still maintain the control centered in the leadership, but achieving impact in both qualitative and quantitative manner.

The combination of the theoretical insights and the case studies through the identification of the variables presented in the framework in multiple steps of the scaling process contributes both to the area of scaling social impact and the Brazilian social innovation ecosystem that is centered in NGOs. The current study can be used to develop further the literature regarding the process of scaling social impact. In the following section, a few research opportunities are identified.

6.1 Limitations and Research Opportunities

This research does not encompass all the factors involved in both the decision making, and operational steps of the scaling process, it focuses only on the most relevant factors identified in the reviewed literature. Among the dimensions identified would be interesting to investigate the relationship between dimensions, understanding the contribution of each dimension to the scaling process and what combinations have higher impact in limiting or driving the scaling process. A quantitative research with a large number of organizations can bring interesting insights to understand the relevance and correlation between variables.

The selected case studies are all from ventures that have successfully scaled, including ventures that started a scaling process and failed to grow could provide interesting insights. The scope of this research does not involve the definition or validation of any measurement of impact, using the number of beneficiaries, locations, and service offerings as proxies for impact.

Further exploration of the framework into different social-economical and geographical contexts could be used to better understand the environmental and political differences, focusing on specific areas, organizations with similar offerings, target audience or service, to understand the particularities of each area, while combining both and comparing different areas or social economical contexts will lead to develop more generalizable theories. Another opportunity is to include impact measurement methodologies. Even though the discussion on impact measurement is a critical topic in the social innovation literature and some proxies for impact measurement were used

throughout the work, the methodologies of impact measurement were out of the scope of this research, and consequently their validity were not discussed.

Besides the limitation of the scope of the research, the methods selected present their own limitations. The key words and the data base selection used in the literature review, despite leading to a collection of relevant material limited the results and might have excluded other relevant documents. Therefore, further research using other data bases and expanding the selection of keywords could bring interesting insights for the area. The case study method also lacks a statistically relevant sample size providing little basis for generalization of results to a wider population, a bigger sample would enhance the reliability of the research. Another limitation are the potential biases present in the collection of primary data, from both the researcher and the interviewee. A list of key questions derived from the gaps of this research are organized in Table 7.

Table 7 - Future Research Opportunity

Key Questions	Research Gaps	Future Research Opportunity
What are the most relevant dimensions in the scaling process?	Limited research focused on scaling social impact as multifactor process.	Understand the contribution of each dimension to the scaling process
What are the factors that motivate a scaling process?		Validate the framework through empirical research using multiple cases.
Which dimensions are context specific and which are case specific		Understand which dimensions are context specific and consequently shared by multiple cases.
What are the most relevant dimensions in the scaling process?	Absence of research focused on the interaction among the variables involved in the process of scaling social innovation.	Understand the interaction among dimensions
What are the interections between dimensions?		in identifying what kinds of combinations of dimensions are crucial for stimulating or obstructing scaling, or for scaling in particular conditions

Source. Author (2021)

7 REFERENCES

- Agostini, M.R., Vieira, L.M Tondolo, R.R.P & Tondolo, V.A.G. (2017). An Overview on Social Innovation Research: Guiding Future Studies. *Brazilian Business Review*.
- Anastacio, M. R., Filho, P. R. A. C., & Marins, J. (2018). Empreendedorismo Social E Inovação Social No Contexto Brasileiro (Issue July).
- ANEEL (2020). Retrieved from: <https://www.aneel.gov.br/programa-eficiencia-energetica>
- Asemota, J., & Chahine, T. (2017). Social franchising as an option for scale. *Voluntas*, 28(6), 2734–2762.
- Bacq, S., & Eddleston, K. A. (2018). A Resource-Based View of Social Entrepreneurship: How Stewardship Culture Benefits Scale of Social Impact. *Journal of Business Ethics*, 152(3), 589–611.
- Bacq, S., Ofstein, L. F., Kickul, J. R., & Gundry, L. K. (2015). Bricolage in social entrepreneurship: How creative resource mobilization fosters greater social impact. *International Journal of Entrepreneurship and Innovation*, 16(4), 283–289.
- Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3), 329–366.
- Bataglin, J. C. (2017). Barreiras e facilitadores da inovação social: estudo de casos múltiplos no Brasil (Doctoral thesis, Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, São Paulo). Retrieved from: <https://teses.usp.br/teses/disponiveis/12/12139/tde-23062017-094510/pt-br.php>
- Bloom, P. N., & Chatterji, A. K. (2009). Scaling social entrepreneurial impact. *California Management Review*, 51(3), 114–134.

Bloom, P. N., & Smith, B. R. (2010). Identifying the drivers of social entrepreneurial impact: Theoretical development and an exploratory empirical test of SCALERS. *Journal of Social Entrepreneurship*, 1(1), 126–145.

Blundel, R. K., & Lyon, F. (2015). Towards a 'Long View': Historical Perspectives on the Scaling and Replication of Social Ventures. *Journal of Social Entrepreneurship*, 6(1), 80–102.

Bocken, N. M. P., Fil, A., & Prabhu, J. (2016). Scaling up social businesses in developing markets. *Journal of Cleaner Production*, 139, 295–308.

Bradach, J. (2003). Going to scale. The Challenge of Replicating Social Programs. *Stanford Social Innovation Review*, 65(10), 19–25.

Bradach, J. (2010). "Scaling Impact: How to Get 100x the Results with 2x the Organization." *Stanford Social Innovation Review Summer*: 27–28.

Braund, P., & Schwittay, A. (2016). Scaling inclusive digital innovation successfully: The case of crowdfunding social enterprises. *Innovation and Development*, 6(1), 15–29.

Cannatelli, B. (2017). Exploring the Contingencies of Scaling Social Impact: A Replication and Extension of the SCALERS Model. *Voluntas*, 28(6), 2707–2733.

Castellan, C. M. (2010). Quantitative and Qualitative Research: A View for Clarity. *International Journal of Education*, 2(2), 1–14.

Caulier-Grice, J., Kahn, L., Mulgan, G., Pulford, L., & Vasconcelos, D. (2010). Study on Social Innovation. *European Union/Young Foundation*, 1–124. Retrieved from: <https://youngfoundation.org/wp-content/uploads/2012/10/Study-on-Social-Innovation-for-the-Bureau-of-European-Policy-Advisors-March-2010.pdf>

Cipola, C., & Afonso, R. (2018). Social Innovations in Brazil: How do Social Innovations Flourish? *Atlas of Social Innovation: New Practices for a Better Future*, 130–132.

Cornell University, INSEAD, and WIPO (2020). The Global Innovation Index 2020: Who Will Finance Innovation?

Corner, P. D., & Ho, M. (2010). How opportunities develop in social entrepreneurship. *Entrepreneurship: Theory and Practice*, 34(4), 635–659.

Corner, P. D., & Kearins, K. (2018). Scaling-up social enterprises: The effects of geographic context. *Journal of Management and Organization*, 1–19.

Creswell, J.W., Tashakkori, A., Jensen, K.D. and Shapley, K.L. (2003), “Teaching mixed methods research: practices, dilemmas and challenges”, in Tashakkori, A. and Teddlie, C. (Eds), *Handbook of Mixed Methods in Social and Behavioral Research*, Sage, Thousand Oaks, CA, pp. 619-38.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, California: SAGE Publications.

Ćwiklicki, M. (2019). Requirements for scaling international social enterprises. *Entrepreneurial Business and Economics Review*, 7(1), 45–60.

Dees, J. G., Anderson, B. B., & Wei-skillern, J. (2004). Scaling Social Impact: Strategies for spreading social innovation. *Stanford Social Innovation Review*, 1 (4), 24–32.

Deiglmeier, K., & Greco, A. (2018). Why Proven Solutions Struggle to Scale Up. *Stanford Social Innovation Review*, 2008, 1–12.

Desa, G., & Koch, J. L. (2014). Scaling Social Impact: Building Sustainable Social Ventures at the Base-of-the-Pyramid. *Journal of Social Entrepreneurship*, 5(2), 146–174.

Easter, S., & Conway Dato-On, M. (2015). Bridging Ties Across Contexts to Scale Social Value: The Case of a Vietnamese Social Enterprise. *Journal of Social Entrepreneurship*, 6(3), 320–351.

Eckhart-Queenan, B. J., Etzel, M., Lanney, J., & Silverman, J. (2019). Momentum for Change: Ending the Nonprofit Starvation Cycle. *The Chronicle of Philanthropy*, September 2019.

Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *Academy of Management Review*, 14(4), 532–550.

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25–32.

El Ebrashi, R. (2018). Typology of growth strategies and the role of social venture's intangible resources. *Journal of Small Business and Enterprise Development*, 25(5), 818–848.

Fisher, G. (2012). Effectuation, causation, and bricolage: A behavioral comparison of emerging theories in entrepreneurship research. *Entrepreneurship: Theory and Practice*, 36(5), 1019–1051.

Frumkin, Peter. (2006). Strategic Giving: The Art and Science of Philanthropy. Bibliovault OAI Repository, the University of Chicago Press.

Gauthier, J., Ruane, S. G., & Berry, G. R. (2019). Evaluating and extending SCALERS: Implications for social entrepreneurs. *Journal of Small Business and Entrepreneurship*, 31(4), 349–369.

Giudici, A., Combs, J. G., Cannatelli, B. L., & Smith, B. R. (2020). Successful Scaling in Social Franchising: The Case of Impact Hub. *Entrepreneurship: Theory and Practice*, 44(2), 288–314.

Grant, H. M., & Crutchfield, L. R. (2007). Creating High-Impact Nonprofits. *Stanford Social Innovation Review, Fall*, 32–41.

Greco, S.M.S.S., Cunha, C.R., Onozato, E., Guimarães, M.L., Bastos, P.A. & Souza, V.L. (2018). Global Entrepreneurship Monitor Empreendedorismo no Brasil: 2018, IBQP

Guha, P. (2019). Going to Scale: A Case Study of an Indian Educational NGO. *Voluntas*, 30(6), 1365–1379.

Han, J., & Shah, S. (2019). The Ecosystem of Scaling Social Impact: A New Theoretical Framework and Two Case Studies. *Journal of Social Entrepreneurship*, 0(0), 1–25.

Habitat for Humanity (2019). The Carter Project. Retrieved from: <https://www.habitat.org/volunteer/build-events/carter-work-project>

Howaldt, J, Schröder, A., Kaletka, C., Rehfeld, D. & Terstriep, J. (2016). Comparative Analysis (Mapping 1): Mapping the World of Social Innovation: A Global Comparative Analysis Across Sectors and World Regions. Deliverable D1.4 of the SI-DRIVE Project. Retrieved from: www.si-drive.eu

Hue, D. T. (2017). Fourth Generation NGOs: Communication Strategies in Social Campaigning and Resource Mobilization. *Journal of Nonprofit and Public Sector Marketing*, 29(2), 119–147.

IBGE (2020). Síntese de Indicadores Sociais: uma análise das condições de vida da população brasileira. *Estudos e Pesquisas Informação Demográfica e Socioeconômica*, 43,

Islam, S.M. (2020a). Towards an integrative definition of scaling social impact in social enterprises. *Journal of Business Venturing Insights*, 13.

Islam, S. M. (2020b). Unintended consequences of scaling social impact through ecosystem growth strategy in social enterprise and social entrepreneurship. *Journal of Business Venturing Insights*, 13.

Janssen, F., Fayolle, A., & WUILAUME, A. (2018). Researching bricolage in social entrepreneurship. *Entrepreneurship and Regional Development*, 30(3–4), 450–470.

Jones, S. (2016). Social causes and consequences of energy poverty. *Energy Poverty Handbook*, 21-37.

Lecy, J. D., & Beatty, K. E. (2012). Representative Literature Reviews Using Constrained Snowball Sampling and Citation Network Analysis. *SSRN Electronic Journal*, 1–15.

Lopez, F. G. (2018). Perfil das organizações da sociedade civil no brasil. IPEA, 176.

Lyon, F., & Fernandez, H. (2012). Strategies for scaling up social enterprise: lessons from early years providers. *Social Enterprise Journal*, 8(1), 63–77.

Mair, J., & Schoen, O. (2007). Successful social entrepreneurial business models in the context of developing economies: An explorative study. *International Journal of Emerging Markets*, 2(1), 54–68.

Maseno, M., & Wanyoike, C. (2020). Social Entrepreneurship as Mechanisms for Social Transformation and Social Impact in East Africa An Exploratory Case Study Perspective. *Journal of Social Entrepreneurship*, 0(0), 1–26.

Mastrangelo, L. M., Benitez, D. G., & Cruz-Ros, S. (2017). How Social Entrepreneurs Can Influence their Employees' Commitment. *Journal of Promotion Management*, 23(3), 437–448.

Moore, M., Riddell, D., & Vocisano, D. (2015). Scaling Out, Scaling Up, Scaling Deep: Strategies of Non-profits in Advancing Systemic Social Innovation. *The Journal of Corporate Citizenship*. 58, 67–84.

Mortari, J. (2020). Opportunities for grantmaking in fostering the culture of giving in Brazil. Retrieved from: <https://members.wingsweb.org/news/23857>

Mulgan, G. (2007) "Social Innovation, what it Is, Why It Matters, and How it Can Be Accelerated". In: Skoll Centre for Entrepreneurship & Oxford Said Business School Working Paper. Retrieved from: http://eureka.sbs.ox.ac.uk/761/1/Social_Innovation.pdf

Murray, R., Caulier-Grice, J. & Mulgan, G. (2010). *The Open Book of Social Innovation: Ways to Design, Develop and Grow Social Innovations*. The Young Foundation & NESTA.

Natalino, M. (2020). Estimativa da População em Situação de Rua no Brasil (setembro de 2012 a março de 2020). *Nota Técnica*, 73, IPEA.

Narang, Y., Narang, A., & Nigam, S. (2014). Scaling the impact of social entrepreneurship from production and operations management perspective-a study of eight organizations in the health and education sector in India. *International Journal of Business and Globalization*, 13(4), 455–481.

Naderifar, Mahin & Goli, Hamideh & Ghaljaei, Fereshteh. (2017). Snowball Sampling: A Purposeful Method of Sampling in Qualitative Research. *Strides in Development of Medical Education*.

Ometto, M. P., Gegenhuber, T., Winter, J., & Greenwood, R. (2019). From Balancing Missions to Mission Drift: The Role of the Institutional Context, Spaces, and Compartmentalization in the Scaling of Social Enterprises. *Business and Society*, 58(5), 1003–1046.

OXFAM (2020). Brazil: extreme inequality in numbers. Retrieved from: <https://www.oxfam.org/en/brazil-extreme-inequality-numbers>

Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley.

Perrini, F., Vurro, C., & Costanzo, L. A. (2010). A process-based view of social entrepreneurship: From opportunity identification to scaling-up social change in the case of San Patrignano. *Entrepreneurship and Regional Development*, 22(6), 515–534.

Rangan, V. K., & Gregg, T. (2019). How Social Entrepreneurs Zig-Zag Their Way to Impact at Scale. *California Management Review*, 62(1), 53–76.

Rao-Nicholson, R., Vorley, T., & Khan, Z. (2017). Social innovation in emerging economies: A national systems of innovation-based approach. *Technological Forecasting and Social Change*, 121, 228–237.

Rayna, T., & Striukova, L. (2019). Open social innovation dynamics and impact: exploratory study of a fab lab network. *R and D Management*, 49(3), 383–395.

Renaut, W. (2019). Ordem e progresso and generosity? Brazilian philanthropy in a nutshell. Retrieved from: <https://www.alliancemagazine.org/blog/ordem-e-progresso-and-generosity-brazilian-philanthropy-in-a-nutshell/>

Runeson, P., Höst, M. (2009). Guidelines for conducting and reporting case study research in software engineering. *Empir Software Eng* 14, 131

Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., & Fuller, G. (2019). Sustainable Development Report 2019. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN).

Saldaña, J. (2013). The coding manual for qualitative researchers. Sage, 2ed.

Salum, F., Coleta, K., & Monteiro, F. (2020). How Social Impact Start-ups Are Solving Brazil's Covid-19 Challenges. Retrieved from: <https://knowledge.insead.edu/blog/insead-blog/how-social-impact-start-ups-are-solving-brazils-covid-19-challenges-14721>

Santana, A. L. J. de M., & Souza, L. M. (2015). Empreendedorismo com Foco em Negócios Sociais. UFPR, 172

Sarasvathy, S. D. (2001). Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency. Universiteitsbibliotheek Antwerpen. *The Academy of Management Review*, 4/1/2001, Vol. 26, Issue 2, 26(2), 243–263.

Scheuerle, T., & Schmitz, B. (2016). Inhibiting Factors of Scaling up the Impact of Social Entrepreneurial Organizations – A Comprehensive Framework and Empirical Results for Germany. *Journal of Social Entrepreneurship*, 7(2), 127–161.

Siebold, N., Günzel-Jensen, F., & Müller, S. (2019). Balancing dual missions for social venture growth: a comparative case study. *Entrepreneurship and Regional Development*, 31(9–10), 710–734

Siebold, N. (2020). Reference points for business model innovation in social purpose organizations: A stakeholder perspective. *Journal of Business Research*, February 2019, 1–10.

Smith, B. R., Kistruck, G. M., & Cannatelli, B. (2016). The Impact of Moral Intensity and Desire for Control on Scaling Decisions in Social Entrepreneurship. *Journal of Business Ethics*, 133(4), 677–689.

Smith, B. R., & Stevens, C. E. (2010). Different types of social entrepreneurship: The role of geography and embeddedness on the measurement and scaling of social value. *Entrepreneurship and Regional Development*, 22(6), 575–598.

STRIVE (2019). Our Story. Retrieved from: <https://strive.org/story>

Spinosa, L. M., Schlemm, M. M., & Reis, R. S. (2015). Brazilian innovation ecosystems in perspective: some challenges for stakeholders. *Revista Brasileira de Estratégia*, 8(3), 386–400.

Tod, A. & Thomson, H. (2016). Health impacts of cold housing and energy poverty. *Energy Poverty Handbook*, 39-56.

Torraco, R. J. (2005). Writing Integrative Literature Reviews: Guidelines and Examples. *Human Resource Development Review*, 4(3), 356–367.

Tykkyläinen, S., Syrjä, P., Puumalainen, K., & Sjögrén, H. (2016). Growth orientation in social enterprises. *International Journal of Entrepreneurial Venturing*, 8(3), 296–316.

Uvin, P., & Miller, D. (1996). Paths to scaling up: Alternative strategies for local nongovernmental organizations. *Human Organization*, 55(3), 344–354.

Uvin, P., Jain, P. S., & Brown, L. D. (2000). Think large and act small: Toward a new paradigm for NGO scaling up. *World Development*, 28(8), 1409–1419.

Van Lunenburg, M., Geuijen, K., & Meijer, A. (2020). How and Why Do Social and Sustainable Initiatives Scale? A Systematic Review of the Literature on Social Entrepreneurship and Grassroots Innovation. *Voluntas*.

Vansandt, C. V., Sud, M., & Marme, C. (2009). Enabling the original intent: Catalysts for social entrepreneurship. *Journal of Business Ethics*, 90(SUPPL 3), 419–428.

Vickers, I., & Lyon, F. (2014). Beyond green niches? Growth strategies of environmentally motivated social enterprises. *International Small Business Journal*, 32(4), 449–470.

Walske, J. M., & Tyson, L. D. (2015). Built to scale: A comparative case analysis, assessing how social enterprises scale. *International Journal of Entrepreneurship and Innovation*, 16(4), 269–281.

Weerakoon, C., Gales, B., & McMurray, A. J. (2019). Embracing entrepreneurial action through effectuation in social enterprise. *Social Enterprise Journal*, 15(2), 195–214.

Weerawardena, J., & Sullivan Mort, G. (2006). Investigating social entrepreneurship: A multidimensional model. *Journal of World Business*, 41(1), 21–35.

Westley, F., & Antadze, N. (2010). Making a difference: Strategies for scaling social innovation for greater impact. *Innovation Journal*, 15(2), 1–19.

Westley, F., Antadze, N., Riddell, D. J., Robinson, K., & Geobey, S. (2014). Five Configurations for Scaling Up Social Innovation: Case Examples of Nonprofit Organizations from Canada. *Journal of Applied Behavioral Science*, 50(3), 234–260.

World Habitat (2016). Liter of Light: Lighting homes and lives one bottle at a time.

World Bank Group (2016). Retaking the Path to Inclusion, Growth and Sustainability. Retaking the Path to Inclusion, Growth and Sustainability.

World Bank (2018). Retrieved from: <https://data.worldbank.org/country/BR>

Yin, R. K. (2003). Case study research: Design and methods (3rd ed.). Thousand Oaks, CA: Sage

Zainol, N. R., Zainol, F. A., Ibrahim, Y., & Afthanorhan, A. (2019). Scaling up social innovation for sustainability: The roles of social enterprise capabilities. *Management Science Letters*, 9(3), 457–466.

Zobel, G. (2013). Brasileiro inventor de 'luz engarrafada' tem ideia espalhada pelo mundo. Retrieved from:

https://www.bbc.com/portuguese/noticias/2013/08/130813_lampada_garrafa_gm

ANNEX 1 – INTERVIEW SCRIPT

1. INTRODUÇÃO, DESCRIÇÃO E DETALHAMENTO DO ESTADO ATUAL DA ORGANIZAÇÃO E DO ENTREVISTADO

ONG:

ANO DE FUNDAÇÃO:	
FUNDADORES:	
ÁREA DE ATUAÇÃO:	
NÚMERO DE FUNCIONÁRIOS:	
NÚMERO DE VOLUNTÁRIOS:	
LOCAIS DE ATUAÇÃO:	
SITE:	
TELEFONE:	
ENTREVISTADO:	
CARGO NA ORGANIZAÇÃO:	
REMUNERADO	() SIM () NÃO
FORMAÇÃO:	
TEMPO DE TRABALHO NA ORGANIZAÇÃO:	
DATA DA ENTREVISTA:	TEMPO DE ENTREVISTA:

2. HISTÓRICO DA ORGANIZAÇÃO

- Qual era a missão original da ONG? (Buscar elaborar sobre as atividades realizadas)
- Quantas pessoas eram atendidas no primeiro ano?
- Como funcionava o financiamento da operação no início da ONG?
- Quantas pessoas (voluntárias e remuneradas) estavam envolvidas no trabalho na época?

3. CAPITAL HUMANO

- e) Atualmente, como é a composição da mão de obra da ONG?
- f) Qual o maior desafio em relação a aquisição de mão de obra remunerada?
E voluntária?

4. CAPTAÇÃO DE RECURSOS

- g) Ao longo da trajetória da ONG, vocês tiveram dificuldade em angariar recursos financeiros?
- h) Qual a maior dificuldade encontrada no processo de captação de recursos?
- i) Como funciona a atual estrutura de captação de recursos?

5. ESTRATÉGIA DE COMUNICAÇÃO

- j) Como você avalia a contribuição das redes sociais a operação da ONG?
- k) Quais as ferramentas mais relevantes para a comunicação e o relacionamento seus stakeholders (doadores de recursos financeiros ou de trabalho voluntário)?
- l) O reconhecimento da marca foi importante no crescimento da ONG?
- m) Qual o papel da cobertura da mídia, redes sociais ou publicidade na expansão da ONG?

6. RELAÇÃO COM O ECOSSISTEMA

- n) A ONG contou com alguma assistência ou incentivo do governo no seu processo de crescimento?
- o) Em alguma situação, a legislação ou políticas públicas atrapalharam ou impediram a sua atuação?
- p) Você consegue identificar parceiros importantes para a manutenção e expansão da ONG ao longo dos anos?
- q) A ONG mantém contato com outras instituições de atuação similar, compartilhando informações ou atuando em parceria?

7. HISTÓRICO DE EXPANSÃO

- r) Quais são os projetos ou serviços oferecidos pela ONG atualmente?
- s) Quantas pessoas são atendidas pela ONG hoje?
- t) Que mudanças ocorreram para que a ONG chegasse no seu estado atual?
- u) Vocês já precisaram ajustar ou alterar seus projetos ou serviços?

v) Quais foram os maiores desafios nesse processo de crescimento?

8. CARACTERÍSTICA DO ATOR

w) Você diria que a ONG ainda precisa crescer?

x) Qual foi a sua contribuição para o processo de crescimento da ONG?

y) Que fatores foram determinantes para que a ONG chegasse ao nível que está hoje?

z) Que estratégias/decisões tomadas nesses últimos anos na ONG que você não repetiria?

aa) Qual a sua maior preocupação num projeto de expansão da ONG?

bb) Qual o próximo passo para a ONG?

ANNEX 2 – TABLE OF RELATION BETWEEN INTERVIEW SCRIPT AND DIMENSIONS OF ANALYSIS

Main Dimension	Potential Secondary Dimension	Interview Question
Categories of Scaling Impact		Qual era a missão original da ONG? (Buscar elaborar sobre as atividades realizadas)
Categories of Scaling Impact		Quantas pessoas eram atendidas no primeiro ano?
Categories of Scaling Impact		Como funcionava o financiamento da operação no início da ONG?
Organization Resources - Human Capital	Categories of Scaling Impact	Quantas pessoas (voluntárias e remuneradas) estavam envolvidas no trabalho na época?
Organization Resources - Human Capital	Categories of Scaling Impact	Atualmente, como é a composição da mão de obra da ONG?
Organization Resources - Human Capital	Barriers	Qual o maior desafio em relação a aquisição de mão de obra remunerada? E voluntária?
Organization Resources - Funding	Barriers	Ao longo da trajetória da ONG, vocês tiveram dificuldade em angariar recursos financeiros?
Organization Resources - Funding	Barriers	Qual a maior dificuldade encontrada no processo de captação de recursos?
Organization Resources - Funding		Como funciona a atual estrutura de captação de recursos?
Organization Resources - Communication		Como você avalia a contribuição das redes sociais a operação da ONG?
Organization Resources - Communication		Quais as ferramentas mais relevantes para a comunicação e o relacionamento seus stakeholders (doadores de recursos financeiros ou de trabalho voluntário)?
Organization Resources - Communication		O reconhecimento da marca foi importante no crescimento da ONG?
Organization Resources - Communication		Qual o papel da cobertura da mídia, redes sociais ou publicidade na expansão da ONG?
Organization Resources - Network	Barriers	A ONG contou com alguma assistência ou incentivo do governo no seu processo de crescimento?
Barriers	Environmental Conditions - Dynamics	Em alguma situação, a legislação ou políticas públicas atrapalharam ou impediram a sua atuação?
Organization Resources - Network		Você consegue identificar parceiros importantes para a manutenção e expansão da ONG ao longo dos anos?
Organization Resources - Network	Barriers	A ONG mantém contato com outras instituições de atuação similar, compartilhando informações ou atuando em parceria?
Categories of Scaling Impact		Quais são os projetos ou serviços oferecidos pela ONG atualmente?
Categories of Scaling Impact		Quantas pessoas são atendidas pela ONG hoje?
Strategic Pathways	Environmental Conditions - Adaptation	Que mudanças ocorreram para que a ONG chegasse no seu estado atual?
Environmental Conditions - Adaptation	Barriers	Vocês já precisaram ajustar ou alterar seus projetos ou serviços?
Environmental Conditions - Dynamics	Barriers	Quais foram os maiores desafios nesse processo de crescimento?
Actor Characteristics - Enterprise		Você diria que a ONG ainda precisa crescer?
Actor Characteristics		Qual foi a sua contribuição para o processo de crescimento da ONG?
Actor Characteristics	Organization Resources	Que fatores foram determinantes para que a ONG chegasse ao nível que está hoje?
Actor Characteristics	Strategic Pathways	Que estratégias/decisões tomadas nesses últimos anos na ONG que você não repetiria?
Actor Characteristics	Barriers	Qual a sua maior preocupação num projeto de expansão da ONG?
Strategic Pathways	Actor Characteristics	Qual o próximo passo para a ONG?