MEASUREMENT OF THE SOCIAL IMPACT OF NONPROFIT ORGANIZATIONS IN THEIR SPECIFIC COMMUNITY

Design of a measurement methodology for Portugal

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Dissertation presented as partial requirement for obtaining the Master’s degree in Statistics and Information Management
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by

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Dissertation presented as partial requirement for obtaining the Master’s degree in Statistics and Information Management, with a specialization in Marketing Research and CRM

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RESUMO

A responsabilidade social é cada vez mais um tópico relevante dado que as organizações procuram um envolvimento com os seus stakeholders. Em vez de promover uma visão econômica a curto prazo, a responsabilidade social promove uma visão social que, se medida, pode permitir que as organizações saibam se as suas ações sociais estão a ser conduzidas de forma a produzirem o maior impacto social possível.

O presente trabalho pretendeu criar um guia metodológico para medir o impacto social das organizações sem fins lucrativos nas suas comunidades específicas e compreender se o impacto social está dividido em dimensões. Foi desenvolvido um caso de estudo em que se analisou o projeto Rendimento Social de Inserção (RSI) do Campus Social da Santa Casa da Misericórdia da Amadora em parceria com uma empresa da área da estatística que trabalha no setor social com o objetivo de criar um modelo de medição de impacto social que possa ser comparável entre organizações sem fins lucrativos.

Foram conduzidos focus groups e entrevistas semiestruturadas de forma a reunir um conjunto de indicadores. Posteriormente foi realizado um questionário e entrevistas de grupo para recolher dados acerca do grau de mudança experienciado pelos beneficiários do projeto. Foram assim realizadas análises fatoriais e de regressão para selecionar as variáveis que têm a maior influência para o impacto social. Foram então propostos um questionário e um modelo (fórmula) usando estas variáveis para calcular o impacto social.

Os dados recolhidos permitiram verificar que o impacto social do projeto RSI não está uniformemente dividido nas dimensões que foram conceptualizadas – indivíduo, família, sociedade e profissão – e que explicam uma percentagem reduzida de variância, sendo preferível produzir modelos com todas as variáveis simultaneamente. Nenhuma das variáveis da dimensão familiar foi significativa e as restantes apresentaram diferentes contribuições para o impacto social.

O impacto social do projeto RSI da Santa Casa da Misericórdia da Amadora foi medido e reportado na sua totalidade. Outras organizações interessadas em medir o seu impacto social deverão seguir o guia metodológico desenvolvido, onde é referido a forma como uma organização deve recolher indicadores específicos e calcular os pesos para os seus processos de medição de impacto social.

Espera-se que o guia metodológico permita que as organizações sem fins lucrativos portuguesas meçam o seu impacto social relativamente ao seu stakeholder comunidade específica e, por conseguinte, tomem as medidas necessárias para aumentar o seu impacto social.

PALAVRAS-CHAVE

Organizações sem fins lucrativos; responsabilidade social; transparência; impacto social; medição de impacto social; stakeholders; metodologias de impacto social; indicadores sociais; educação; emprego; autonomização.
ABSTRACT

Social responsibility is becoming an increasingly relevant topic as organizations search for an involvement with their stakeholders. Instead of promoting a short-term economic vision, it promotes a social vision that if measured can allow organizations to know if their actions are being conducted in a way that produces the greatest social impact possible.

The present work aimed to create a methodological guide to measure social impact across nonprofit organizations among their specific communities and to understand if social impact is divided in social dimensions. A case study, analyzing the Rendimento Social de Inserção (RSI) project of Campus Social of Santa Casa da Misericórdia da Amadora in partnership with a statistical company working in the social sector, was developed with the intent to create a model to measure social impact that could be comparable between nonprofit organizations.

Focus groups and semistructured interviews were conducted in order to gather indicators. This was followed by a questionnaire and group interviews to collect data about the degree of change experienced by the beneficiaries of the project. Factor analysis and regression analysis were then performed to select the variables that have the most influence on social impact. A questionnaire and a model (formula) using these variables were then proposed to calculate social impact.

Gathered data made it possible to notice that the social impact of the RSI project is not uniformly divided in the dimensions that were hypothesized – individual, family, society, and profession – and that they explain very little variance, making it better to produce models with all the variables simultaneously. None of the variables of the family dimension were significant and the remaining dimensions presented distinct contributions to social impact.

The social impact of the RSI project of Santa Casa da Misericórdia da Amadora was fully measured and reported. Other organizations interested in measuring their social impact should follow the developed methodological guide, where it is stated how an organization should gather specific indicators and calculate weights for its social impact measurement processes.

It is expected that the methodological guide will allow Portuguese nonprofit organizations to measure their social impact regarding the specific community stakeholder, and therefore take the necessary actions to improve their social impact.

KEYWORDS

Nonprofit organizations; social responsibility; accountability; social impact; social impact assessment; stakeholders; social impact methodologies; social indicators; education; employment; autonomization.
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<tbody>
<tr>
<td>ACAFI</td>
<td>Atkisson Compass Assessment for Investors</td>
</tr>
<tr>
<td>BACO</td>
<td>Best Available Charitable Option</td>
</tr>
<tr>
<td>BoP</td>
<td>Base of the Pyramid</td>
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<tr>
<td>BSc</td>
<td>Balanced Scorecard</td>
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<td>CBA</td>
<td>Cost-Benefit Analysis</td>
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<td>CEA</td>
<td>Cost-Effectiveness Analysis</td>
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<td>CHAT</td>
<td>Charity Analysis Tool</td>
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<td>CR</td>
<td>Corporate Responsibility</td>
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<td>CSR</td>
<td>Corporate Social Responsibility</td>
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<tr>
<td>DBL</td>
<td>Double Bottom Line</td>
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<tr>
<td>DF</td>
<td>Degrees of freedom</td>
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<tr>
<td>DJSI</td>
<td>Dow Jones Sustainability Index</td>
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<td>GIIRS</td>
<td>Global Impact Investing Ratings System</td>
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<td>GRI</td>
<td>Global Reporting Initiative</td>
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<td>IRIS</td>
<td>Impact Reporting and Investments Standards</td>
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<td>ISO</td>
<td>International Organization for Standardization</td>
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<td>JET</td>
<td>Journey to Employment framework</td>
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<tr>
<td>LBG</td>
<td>London Benchmarking Group</td>
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<td>LM3</td>
<td>Local Multiplier 3</td>
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<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
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<td>MDG</td>
<td>Millennium Development Goals</td>
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<td>MIAA</td>
<td>The Investing for Good Methodology for Impact Analysis and Assessment</td>
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<td>MIF</td>
<td>Measuring Impact Framework</td>
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<tr>
<td>NGO</td>
<td>Nongovernmental Organization</td>
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<td>OASIS</td>
<td>Ongoing Assessment of Social Impacts</td>
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<td>OLS</td>
<td>Ordinary Least Squares</td>
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<td>Acronym</td>
<td>Description</td>
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<tr>
<td>PIA</td>
<td>Participatory Impact Assessment</td>
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<td>PSIA</td>
<td>Poverty Social Impact Assessment</td>
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<td>PVS c</td>
<td>Public Value Scorecard</td>
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<td>RCT</td>
<td>Randomized Control Trials</td>
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<td>RISE</td>
<td>Real Indicators of Success in Employment</td>
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<tr>
<td>RSI</td>
<td>Rendimento Social de Inserção</td>
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<td>SAA</td>
<td>Social Accounting and Auditing</td>
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<td>SCMA</td>
<td>Santa Casa da Misericórdia da Amadora</td>
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<td>SDL</td>
<td>Social Data Lab</td>
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<td>SEAT</td>
<td>Socio-Economic Assessment Toolbox</td>
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<td>SIA</td>
<td>Social Impact Assessment</td>
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<tr>
<td>SIMPLE</td>
<td>Social IMPact measurement for Local Economies</td>
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<td>SOUL</td>
<td>Soft Outcomes Universal Learning</td>
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<td>SRA</td>
<td>Social Return Assessment</td>
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<td>SROI</td>
<td>Social Return on Investment</td>
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<td>TBL</td>
<td>Triple Bottom Line</td>
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<td>WARM</td>
<td>Wellbeing and Resilience Measure</td>
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INTRODUCTION

Organizations are increasingly searching for an involvement with their stakeholders when conducting their activities, being social responsibility an emergent topic that should be addressed. In fact, social responsibility promotes a social, global and long-term vision instead of an economic, limited and short-term one (Social Data Lab, 2016). It integrates social, environmental and financial issues into organizational culture, management and decision making within the process of value creation (Miranda, 2014).

In order to ensure that social responsibility is actually being taken seriously by organizations it is imperative that their social impact among its stakeholders is measured so that organizations know if they are investing correctly in the social sector.

Wider access to information has contributed to highlight the importance of social and environmental issues as profit cannot subsist without people or a planet (Gilligan & Golden, 2009). Faced with the economic crisis and the social problems that come along, civil society is forced to find solutions to ensure its own survival (Martins, 2007). Initially social responsibility was focused on philanthropic activities but nonprofit organizations and companies have become more concerned with health, education or well-being and came to be service providers in countries where government has to deal with resources shortage to solve these issues. Human rights defense and environmental preservation have also emerged through time (International Organization for Standardization, 2010).

Everyday everyone produces change in the world through simple actions, which can either create or destroy value. The greater part of the value that is captured is the one which can be measured in financial terms, leaving many important aspects unaccounted for. Decisions based on complete information about value can lead to bigger and greater impact (Action for Children, 2010).

Programs that aim to address health, literacy, learning, housing and economic conditions are essential to global progress. While governments and organizations are trying to prioritize the evaluation of these programs, investment is still insufficient and existing methodologies are not consistent nor comparable (Bourguignon, Gertler, Kress, Manning, & Gottlieb, 2006). Among the potential audiences for social impact measurement are grantees, donors, policymakers, practitioners, and most importantly beneficiaries (Twersky, Nelson, & Ratcliffe, 2010).

Nonprofits develop annual or monthly reports regarding their financial condition and accomplishment of target goals. However, these do not reveal anything concerning the social impact produced with their activities. Monitoring and Evaluation (M&E) also differ from impact measurement as they focus on the counting of activities and participants, on providing narratives, and on reporting on project’s successes, challenges and lessons learned (Watkins, Swidler, & Hannan, 2012). This lack of accountability misdirects the focus of nonprofits towards funding and policy commitment from their ultimate goals and can cause inefficient nonprofits to receive more funding than more deserving ones (Kaplan & Grossman, 2010).

Nonprofits are often very good at understanding the needs of their beneficiaries; however, they do not collect data regarding the effect their activities are producing on these key actors. Having the social sector focusing on impact can introduce several benefits to organizations and society at large (Hehenberger, Harling, & Scholten, 2013). Impact in general terms refers to how organizations have
contributed to long-term change beyond their activities and outputs (Smithson, Tully, Lumley, & Carey, 2012).

In medicine, it would be impossible to prescribe medications without considering their impact on patients; nevertheless, social programs that aim for changes in human conditions, behaviors and cultures do not receive the same treatment. There is an obvious concern for continuing programs that are beneficial to society but some programs can continue to impact society in unknown ways even if their impact is negative (Bourguignon et al., 2006).

Organizations that measure impact can make a bigger difference if they are able to learn from results, communicate them and incorporate new knowledge into their activities. Impact should be prioritized while keeping in mind that not everything needs to be assessed at the same time and that sometimes there are negative or unintended impacts, which need to be accounted for and balanced with positive ones (National Council for Voluntary Organisations, 2013).

Measuring impact reveals interest in sharing success and failures showing transparency and ability to learn and share knowledge among organizations. This can increasingly strengthen the social sector, raise the profile of the organizations that perform it and allow funders to make decisions in a more informed manner (National Council for Voluntary Organisations, 2013). Furthermore, it can guide internal decision making and improve reporting on philanthropic activities to stakeholders (Maas & Liket, 2011b).

The ultimate goal of any nonprofit is to introduce social value into the lives of its beneficiaries. As Hornsby (2012) says this is “the most meaningful, tangible and relevant expression of social impact”. Reporting impact is a way to communicate with beneficiaries, to show them the progress they are making and to celebrate change (Hornsby, 2012).

Metrics are essential tools for organizations to know if the programs being implemented are producing the social outcomes that were intended and are the most accurate form of demonstrating social responsibility (Gilligan & Golden, 2009). Methodologies can serve very different purposes that range from monitoring and performance measurement to impact measurement, which makes it imperative that organizations recognize the level of investment and resources that are required for type each evaluation in order to obtain accurate results.

There is not a one-size-fits-all methodology to measure social impact since the social sector is characterized by a wide range of goals and activities (Expert Group on Social Entrepreneurship, 2014). Social value creation’s heterogeneous social interventions, social element, and different socioeconomic and institutional contexts hinders comparability (Kroeger & Weber, 2015). It is difficult to build a comparable methodology using common indicators when there are specific indicators that are only relevant to specific organizations. The need for quantitative indicators can also undervalue qualitative aspects that are important for organizations, and it is also difficult to stick to one standard through time as there are a lot of methodologies being developed as the importance of impact measurement grows (Expert Group on Social Entrepreneurship, 2014).

The response to the increasing demand for measurement from the public, funders and investors has contributed to a disagreement on terminology and a vast array of tools that leads to confusion and to
the need of translation. This has only positively contributed to progressively establish a common set of principles to guide impact measurement (Hornsby, 2012).

A social impact methodology that is comparable between organizations is an emergent need as the lack of common methodologies causes social programs to be mostly measured on financial terms instead of on social goals (Rosenzweig, 2004). An analyst must investigate the changes that are taking place in an organization, and therefore be aware of its individual characteristics to create a methodology that standardizes the process of conducting individual acts of social impact measurement. Its development will potentially make impact measurement and reporting much easier and less expensive for organizations to conduct and make results more understandable (Hornsby, 2012).

As impact measurement importance grows, organizations will become more able to communicate and spread their results, forming a basis for a greater understanding of the social sector (Hornsby, 2012).

Having all this issues in mind, this work aims to develop a methodological guide that makes it possible for Portuguese nonprofit organizations to measure the social impact they are producing in their specific communities. The research hypothesizes that social impact is divided in social dimensions and that some generate more social impact than others.

The main objectives of this research work are:

- To gather a set of indicators that prove to be relevant to measure social impact;
- To build a questionnaire and propose a model that allows the case study organization to perform data collection and measure its social impact in the future;
- To use that model and its subjacent methodology to serve as a guide for the measurement of social impact by other organizations.

The study is performed with the support of two members of Social Data Lab (SDL) and the team from a nonprofit organization, namely Campus Social of Santa Casa da Misericórdia da Amadora (SCMA). The case study focuses on the social impact of the SCMA’s Rendimento Social de Inserção (RSI) project in its beneficiaries. The proposed methodology is expected to allow other organizations to measure their social impact in their specific communities, and therefore take the necessary actions to improve that impact.

Chapter 1 presents a literature review about the state of the art of social impact measurement and the emergent need to integrate this practice in organizations, as well as the methodologies already used by profit and nonprofit organizations and the need for a unified one. Chapter 2 describes the design of this study that mainly consists of a case study that intends to guide other organizations in their social impact measurement practices. The data collection methodologies, both qualitative and quantitative, and the data analysis methodology are then detailed. Chapter 3 presents and discusses the obtained results. Finally, the main conclusions that can be taken based on those results are stated in Chapter 4, and the main limitations of this study and some recommendations for future investigations are summarized in Chapter 5.
1. LITERATURE REVIEW

1.1. THEORETICAL BACKGROUND

Globalization and the evolution of technology have brought a wider access to information, as well as a greater sense of connection between individuals. Social issues are becoming more important to organizations as they realize that people are essential to generate profit and that starting to introduce social impact assessment in business practices can provide a competitive advantage (Gilligan & Golden, 2009): consumers are also starting to question the role of private for profit companies in society, and therefore, companies feel pressured to adopt more social responsible practices (Bassi & Vincenti, 2015), and donors are more and more demanding and expect performance and impact evaluation from organizations as well as transparency in their reporting (Machado, 2015).

Organizations across the globe are increasingly reporting on their social and environmental performance. Some are yet to focus on quantitative data and impact measurement but nevertheless provide qualitative information regarding policies and performance in their annual financial report (Crane, Matten, McWilliams, Moon, & Siegel, 2008).

Companies that feel responsible towards society besides aiming to generate profit are considered socially responsible. They demonstrate their corporate social responsibility (CSR) in several ways namely through the development of philanthropic activities, reinforcement of employee volunteerism, establishment of community relations and improvement of environmental issues. According to managers, CSR comprises actions that aim to produce a positive impact in communities such as tackling poverty, supporting finances, transferring knowledge, and increasing skills (Deigh, Farquhar, Palazzo, & Siano, 2016).

CSR can assume a strategic form, which implies that the company’s socially oriented activities are intended to benefit the company direct or indirectly by helping it to achieve its strategic and economic purposes. The motives that make organizations follow CSR practices can be misleading as they may not want to reveal its true motivations. They can have incentives to hide the purpose behind their actions due to, for example, demanding stakeholders that lead them to say their CSR is based on social motives despite having been undertaken for business reasons. The opposite can also happen if they fear a negative reaction from donors, which may lead them to prefer to associate their CSR to business strategy (Crane et al., 2008).

Philanthropy is traditionally defined as “a concern for or love of humankind” and usually put into practice through charitable gifts, aids, or donations. It is up to an organization whether or not to engage in corporate philanthropy. It is, however, argued that philanthropic activities result in increasing creativity, pluralism, innovation, and greater focus on organizational impact (Schnurbein, Seele, & Lock, 2016).

It can also be strategic: strategic philanthropy is driven by the company’s mission, goals and values, and its motivation is not exclusively altruistic. It can be used as a form of advertising an organizational image or brand through the use of cause-related marketing (e.g. buying a product can contribute to a social cause) or of other prestigious sponsorships. However, if organizations solely focus on the public relations benefit of their philanthropy instead of on the impact they are making, they can miss opportunities to create social value (Porter & Kramer, 2002).
Corporate philanthropy involves giving charitable donations to several societal institutions, especially nonprofit or nongovernmental organizations (NGOs): social service agencies, environmental groups, housing and poverty agencies, schools and universities, hospitals, etc. It can consist of direct monetary donations, in-kind donations (product and service donations), employee volunteer programs or technical support (SAGE, 2012). Philanthropy should not be considered a substitute for longer-term accountability of the organization’s impact on society as it only concerns event only interventions that aim to provide goods to the needy without considering their monitoring at the long-term.

NGOS take part in short-term activities, like the relief of victims from large-scale emergencies and the provision of goods and services, and in long-term ones, like promoting community self-sufficiency and sustainability by providing transportation, healthcare, housing, and food (Beamon & Balcik, 2008).

The form of business that transcends traditional business model boundaries that can occur in private for-profit, not-for-profit or public sector, is called social entrepreneurship. It aims to create value for society through the creation of economic value (SAGE, 2012). Social enterprises have the potential to contribute to community regeneration and social inclusion by allowing for greater responsiveness and innovation of services (Social Enterprise Unit, 2010). Social entrepreneurship within the for-profit sector concerns organizations that are legally defined as existing to generate profit, while having as primary mission social improvement or development. On the other hand, within the not-for-profit sector, social enterprises have legally defined their purpose as social value creation besides engaging in practices that aim for profit in order to guarantee sustainability and to be able to engage in more creative opportunities otherwise difficult through sole grants or donations (SAGE, 2012).

Sustainability demonstrates the ability of an organization to succeed in a competitive and constantly changing global business environment. It is essential that organizations anticipate and manage opportunities and risks, not only economic but also social and environmental, in order to ensure long-term stakeholder value (Standard & Poor’s. McGraw Hill Financial, 2013). As soon as managers have figured out what impacts their sustainability, e.g. labor practices, resources consumption or work force diversity, they should develop a sustainability strategy that focus on priority areas (Epstein & Roy, 2001).

The third sector comprises private organizations that do not aim for profit, but for social and public good. Nonprofit organizations tackle social issues that cannot be effectively addressed by businesses or the government (McDonald, Weerawardena, Madhavaram, & Mort, 2015). They can assume the form of foundations, associations or institutions (Silva, 2004). They follow a different structure based on their missions, dividing themselves in distinct areas of activity. There are institutions that represent social causes like environmental preservation, consumer rights, minority inclusion, and human rights; mutual benefit institutions namely syndicates, churches, political parties, neighborhood associations; institutions such as private foundations and research institutes that support financially, ideologically and technically other institutions (Neto & Fernandes, 2010).

It is common for nonprofit organizations to aim for a world in which people achieve their full potential through education, employment and health (United Way Australia, 2012). These organizations are more and more aware of the need to contribute to sustainable development by adopting a socially responsible behavior. They recognize the importance of making social responsibility part of its strategy and of communicating it internally and externally (International Organization for Standardization,
2014) as it is connected to decisions that are made in an organization on a daily basis (International Organization for Standardization, 2010).

Most of the times social responsibility is thought of a way to alleviate the costs to the public purse as individuals with poor life chances resulting from generations of poverty or lack of qualifications find themselves to be a burden to society until they are off on their feet even if in inhumane conditions. It is imperative that solutions are tailored to individuals and consist of mentoring them in a way they are able not only to find a job and contribute to the economy but also to become citizens in their own right – having a purpose and having the confidence and motivation to live life.

Literature on the subject suggests that early initiatives can prevent people from continuing the cycle of poverty they were born into, making them less likely to engage in teenage parenthood, criminality, mental health issues and unemployment (United Way Australia, 2012). Several people are not able to pursue higher education due to their socio-economic context (HM Treasury, 2006). Support should be provided so that young people and parents start to understand the need to take control of their actions in getting education and address personal obstacles. Working with young people and their parents can break this cycle of intergenerational worklessness (Audit Commission, 2010).

Many social programs focus on giving people access to opportunities to increase their individual, social and economic wellbeing, regardless of their circumstances, through training and monitoring (Department of Education and Training, 2014). Usually the biggest challenge for most of the beneficiaries of work programs is to overcome the long periods of unemployment and personal problems they went through that have lowered their self-esteem and stagnated their soft and work skills. Consequently, there is a great focus given to get a job and being able to keep it (Villeneuve-Smith, 2012).

Having a job should be more than just earning a living. By working as a team, individuals can contribute to economy and society, change the lives of the people they work with as well as work on personal development (UK Commission for Employment and Skills, 2009). Employability comprehends not only getting a job but also the ability to retain it and to be independent in it, i.e., being able to make choices regarding employment situation. In order to be employable people must have the right skills, knowledge and attitudes and present themselves well. In sum, employability involves gaining these tools to be able to move independently in the labor market. Women, more than men, on top of it all, continue to have to choose between employment, career development and family (Elias, Hogarth, & Pierre, 2002).

Employability depends on the individual’s personal and external circumstances. Personal ones encompass caring responsibilities, health and housing conditions; external ones include job openings, labor market regulations, and employer recruitment. Even if there are job opportunities, there is a mismatch between skills and available jobs. In order to increase their employability, individuals need support regarding the labor market to make informed decisions as well as access to new opportunities and relevant training (Hillage & Pollard, 1998). Job retention can be difficult due to temporary contract jobs, redundancy caring responsibilities, dissatisfaction with work and lack of transportation (Hoggart, Campbell-Barr, Ray, & Vegeris, 2006). The welfare system is not meeting the needs of disadvantaged people; government should not only protect people through income support but also prepare them for the workplace through skills support (HM Treasury, 2006). To deal with unequal access to information about job prospects is to deal with dissimilarities in family backgrounds (Mann, 2012).
In the light of the literature on the subject, people are increasingly using volunteering to enhance their employability to acquire the skills they need to find a job. Volunteering can provide similar experiences to those of a regular job such as recruitment, training, discipline and routines. More than greater employability, volunteers can improve their self-confidence, reduce their sense of isolation and feel they are giving back to the community (Gay, 1998). It gives volunteers a chance to test new career paths and access training that can lead to a qualification. It can help people who are socially excluded due to lack of education, health conditions, lone parenthood, ethnicity and prior offenses (Rochester, 2009).

The ability to accomplish things may be based on cognitive ability, emotional intelligence and self-confidence. Having grit has proved to be a dominant trait in leaders in every field. Grit is perseverance, i.e., being able to maintain effort and interest in the face of failure and adversity (Duckworth, Peterson, Matthews, & Kelly, 2007). Aspirations are also important in an individual as they make one believe that he can achieve his goals if he takes the necessary action (Gutman & Akerman, 2008). People from poorer backgrounds usually have lower aspirations and have difficulties finishing education due to lack of access to information regarding jobs and careers (Mann, 2012).

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The Outward Bound Trust (2011) considers wellbeing to be defined by an individual’s confidence, sense of safety and ability to live a healthy and fulfilling life as well as by feeling optimistic, valued and supported and having the strength to overcome obstacles. In order to accomplish this, it is essential that individuals have the ability to connect and develop relationships, have strong personal and emotional skills, and are motivated to be challenged and to achieve. These mechanisms have the potential to level out social inequalities as they benefit individuals, communities and society as a whole.

As stated by Rennison and colleagues, young people feel more pressured to earn money if they live in poverty, hence forgoing the future benefits of having the education to pursue more skilled work (Rennison, Maguire, Middleton, & Ashworth, 2005). Low-skilled jobs are becoming less frequent in the labor market and do not pay enough neither offer stability or opportunities for progression and in the long-term do not guarantee economic independence (Birdwell, Grist, & Margo, 2011). Level of qualification plays a big part in getting a job and in determining earning potential. People’s social and economic background, on the other hand, influence their education (Babb, 2005).

Educational attainment can also be determined by the kind of locus of control of an individual. People may decide to invest in education if they think their actions are connected to subsequent outcomes, e.g. getting a job, and in that case, they have an internal locus of control. On the other hand, people with an external locus of control believe that outcomes are due to chance, hence little related to their actions (Coleman & DeLeire, 2003).

Some young people are NEET (Young people not in education, employment or training) due to reasons that can involve lack of transportation, family problems, poor health or the perception that by working or studying they would be worse off financially (Office for National Statistics, 2008). Several young people lack the information technology skills (Benett, Maton, & Kervin, 2008; The Prince’s Trust, 2013), job specific skills, maturity, motivation, appearance and manners needed to find a job (Newton, Hurstfield, Miller, Page, & Akroyd, 2005; Shury et al., 2010).
If organizations evaluate their interventions and use data effectively to focus on the activities with more impact among their beneficiaries and discard the wasteful ones they are able to do more for less. Investing in education, training and employment has the potential to build a strong workforce able to support economic recovery in the long-term (Audit Commission, 2010).

According to Hornsby, beneficiaries are the people of which life nonprofits aim to contribute to through its activities and that benefit from it (Hornsby, 2012). Ideally evaluation makes beneficiaries able to understand what is their role in the program and what is wanted from them so that they do not feel resistant and become more involved with the organization (Silva, 2012).

Outcomes are the changes that happen to social systems, or more specifically, to the beneficiaries of a project that may be intended or unintended and hard or soft (Olsen & Galimidi, 2008). A hard outcome is the core objective of an organization – getting unemployed people into a job – and a soft outcome comprises the changes that are progressively taking place until the final hard outcome is achieved – changing beneficiaries’ behaviors. Outcomes are usually related to the goals of the organization and may follow a linear relationship between one another (Wainwright, 2002).

Impacts are the long-term overall changes organizations produce in their stakeholders as a result of their interventions, whereas outcomes are the short-term specific ones (Charity Finance Group Institute of Fundraising, 2012).

Outcome measurement provides feedback about programs, which can improve learning, management, and the development of new strategies. However, it is dependent on resources and knowledge regarding the program (Buckmaster, 1999). Information regarding outcomes can help managers and board members improve the effectiveness of their services, better create budgets, and allocate their resources more wisely. For these, organizations define indicators to measure how well activities are leading to their goals (Hatry & Lampkin, 2003).

Impact measurement consists in the measurement of these indicators, which is essential for organizations to demonstrate their achievements and to know what areas need improvement. This evidence helps funders to direct their money to where it will produce the biggest change. Social impact measurement is useful in providing progress against mission, learning how to improve, ensure funding by raising profile, inspiring staff to improve their work and in contributing to knowledge base of what works in nonprofit organization measurement (Rickey, Lumley, & Ógáin, 2011).

By measuring the impact that a social program is producing in its beneficiaries, organizations can improve the outcomes it is generating as some activities can produce much better outcomes than others. Organizations should focus on understanding what has more influence in their social impact so that their programs can be built according to these insights (The Outward Bound Trust, 2011).

Social and philanthropic sectors are becoming especially interested in measurement as a tool to make them sure they are achieving their social objectives of improving lives and building stronger communities (United Way Australia, 2012). Nonprofit organizations in particular are becoming more interested in measuring their social impact (Arvidson & Lyon, 2014), which can prevent them to aim for impacts they cannot achieve or to take credit for impacts that go beyond their activities (Ebrahim & Rangan, 2014).

Organizations are active players in the development of society (Henriques, 2010) so regardless of the sector social entrepreneurship occurs in or of the type of organization in question, it is important to
measure the impact they have on society (SAGE, 2012). Policy makers, researchers and third sector practitioners are more and more interested in the social added value provided by nonprofit organizations and social enterprises (Bassi & Vincenti, 2015). The social value that is created by organizations is called “social impact” and it usually concerns nongovernmental organizations, social enterprises, social ventures, and social programs. However, all organizations produce social impact (Costa & Pesci, 2016). There is an increasing number of people worldwide assessing social impact (Becker, 2001) due to economic, political, social or ethical reasons (Bassi & Vincenti, 2015). The need to measure social impacts is accepted within social enterprises with the acknowledgement that these measurements must encompass activities that surpass counting of outputs and social accounting (McLoughlin et al., 2009).

The definition for social impact in the literature is multifold. Ebrahim and Rangan define it as “a logic chain of results in which organizational inputs and activities lead to a series of outputs, outcomes and ultimately to a set of societal impacts (Ebrahim & Rangan, 2010, p. 3).” Becker, on the other hand, defines it as “the process of identifying the future consequences of a current or proposed actions, which are related to individuals, organizations and social macro-systems (Becker, 2001, p. 312).”

For Burdge (2003), social impact assessment is concerned with individuals, communities and organizations and aims to anticipate social consequences that can result from social change. According to several authors social impact assessment has been conducted by some organizations to respond proactively to change (Esteves, Franks, & Vanclay, 2012) and some of them have discovered that having success in the projects they undertake is not the same thing as accomplishing their missions (Ebrahim & Rangan, 2014).

The third sector is an unstable market since organizations are subject to fast-changing political, social, cultural and economic forces that have a significant impact on their funding (Chapman, Bell, & Robinson, 2011). Being set apart from other organizations by revealing social impact is an important differentiator for funding allocation (Arvidson & Lyon, 2014). Some third sector organizations measure their impact only if that is a requirement for funding, otherwise they assume they know what they are doing (Chapman et al., 2010). The reasoning behind impact measurement should be assuring the organization is producing the expected impact rather than letting funders control nonprofits (Arvidson & Lyon, 2014).

It is difficult to measure the impact of an organization (Henriques, 2010). Esteves, Franks and Vanclay (2012) citing other authors state that social impact assessment involves the comprehension of several concepts – culture, community, power, human rights, gender, justice, place, resilience, sustainable livelihoods – and of how these concepts influence the way social relationships are created, change and respond to change (Henriques, 2010).

Some nonprofits are not yet convinced of the benefits and relevance of measuring impact and show a bit of resistance to this type of evaluation. Some also feel they have no room for more effort, time and resources to give to any extra activities besides their mandatory ones (Hedley, Lumley, & Pavey, 2011). Besides, bigger issues such as inconsistent use of social sector language, lack of common measures, lack of data quality, lack of incentives for transparency, unintended consequences, inadequate use of existent methodologies, and cost of measurement are also a barrier to measuring impact (Twersky et al., 2010).
Before starting to measure social impact, it is essential to understand how organizations relate to society and for that it is necessary to clarify the meaning of ‘society’ that involves “the people, institutions and patterns of action located within a particular territory”. It is also necessary to consider the availability of resources to measure social impact appropriately and the main factors that underlay it such as the complexity of social issues that result from the interaction of different parties and their subjective nature (Henriques, 2010).

The social actors involved in the organization’s affairs should also be considered. These social actors are stakeholders, i.e., “any group or individual who can affect or is affected by the achievement of an organization’s objectives” (SAGE, 2012). Organizations relate to the rest of society through their stakeholders, which makes stakeholders essential to measure social impact as the impact an organization has on society is the impact it has on them. Specifically, social actions should take into account beneficiaries’ feedback in order to be sustainable (United Way Australia, 2012).

According to Ebrahim and Rangan, to measure the work of a nonprofit organization is quite easy; however to measure its outcomes is far more difficult as they involve not only immediate activities but also events that go beyond organizational boundaries (Ebrahim & Rangan, 2014). An organization may deliver long hours of training but if that does not translate into knowledge, skills, accreditation or employment it cannot count as a change in an individual’s life, i.e., it cannot count as an outcome. It is necessary to measure these outputs (e.g. hours of training) to understand if change really happened (Wood & Leighton, 2010).

On the other hand, connecting outcomes to social impacts is even more complex as it deals with several factors from political, social, cultural and economic systems, which the organization does not control. The challenge at hand is clearly stated by the authors: “Outputs don’t necessarily translate to outcomes, and outcomes don’t necessarily translate to impact (Ebrahim & Rangan, 2014, p. 123).” Measuring outcomes is also not an easy task since what is accomplished by individuals is subjective – measuring confidence, self-awareness, self-esteem or aspiration is not an exact science (The Outward Bound Trust, 2011).

As noted, establishing causality can be difficult and so attributing a particular change to an activity of the organization may prove to be impossible. This can even be worse when talking about long-term impact, as most changes do not occur immediately after activities are put into practice. Besides, measurement after several years extends the time of the project and it makes attribution even more difficult to attain as several factors must have had an effect and beneficiaries will not recall many activities they went through before. Organizations must be sure their outcomes are directly attributed to their activities and may want to ensure that their impact measurement only concerns those outcomes.

Control groups allow for evidence of attribution by showing the difference between the outcomes achieved when the organization is present and when the organization is not. Randomized control trials (RCT) are the most reliable techniques to solve this issue; however, they are very time consuming and expensive to conduct (Hornsby & Blumberg, 2013). RCT involves assigning a random sample of applicants to a treatment group (that receives treatment) or to a control group (that does not receive treatment) during the evaluation. The members of these groups only differ in terms of the care received, which makes any posterior difference attributed to the intervention of the organization (Glennerster, Banerjee, & Duflo, 2011).
Nonetheless, one can compare before and after intervention situations or consider another organization with similar characteristics to assess what would have happened without the intervention (Hornsby & Blumberg, 2013). Comparing before and after situations requires having baseline data, which demands that the researcher knows beforehand what type of results are going to occur due to the intervention (Martins, 2014).

To understand what would have happened without the intervention (counterfactual/deadweight/business-as-usual scenario), and therefore account for additionality, is necessary to consider the changes in the area of operation of the organization (changes in participants) and to compare them to what happens in similar areas where it does not operate (changes in non-participants) (Hornsby, 2012). Additionality comprises the changes that occur besides the changes that would have taken place without the intervention of the organization, i.e., what changes are truly new. This happens when the organization provides help in things that beneficiaries would be able to arrange for themselves (Hornsby, 2012).

The involvement of non-participants can be difficult due to the limited incentives to participation, the need of matching between participants and non-participants regarding wealth, vulnerability and other characteristics can be problematic, and the raising of expectations of future assistance can prove to be unethical (Catley, Burns, Abebe, & Suj, 2014). When it is not possible to find a counterfactual through RCT, comparison with expectations, over time or across organizations or consideration of alternative explanations is key (Twersky & Lindblom, 2012).

Impact measuring can be a combination of numbers and text: qualitative approaches should be seen as complementary to quantification as this is a way to get the beneficiary’s perspective in its purest form (European Economic and Social Committee, 2013). The subjectivity of qualitative data can play a part in organizations resistance to measure impact as organizations have not only been concerned with dealing with quantitative data but have also been unfamiliar and suspicious of the use of qualitative data.

Nonetheless, qualitative data may mostly consist of individuals’ perceptions that can be volatile but is essential to identify unanticipated impacts through qualitative techniques like interviews or focus groups (Wainwright, 2002). The voice of the beneficiaries is of utmost importance to understand what changes are taking place in their lives and how much do they mean to them as well as to gather evidence of direct impact generation on the part of the organization. Questions must be reviewed as data collection processes are conducted and investigators should verify if the people answering them are well informed of the activities of the organization and are truly able to give meaningful and lasting input. It is important to consider their context to deduce how activities may affect them (Hornsby & Blumberg, 2013).

Measurement requires standardization, which means agreement on the concept of “measure” and consistency on the way it is applied (Hornsby, 2012). The social sector comprises thousands of organizations that present many dissimilarities regarding their activities and missions (Rickey et al., 2011). This heterogeneity makes no single methodology suitable to all nonprofits and demands the creation of methodologies tailored to their type, size and activities (Wainwright, 2002). To address the need for standardized information one can use a predefined list of metrics or select specific indicators for each organization yet following the same methodology at all times (Olsen & Galimidi, 2008).
Finally, to measure impact, researchers must be aware of the potential impact of their intervention in the behavior of the organizations’ stakeholders, and therefore be consistent and objective when conducting their evaluation methods (Martins, 2014).

A small organization should not be expected to build its own rigorous measurement system, which makes larger entities responsible to develop good impact systems. As a result, social impact measurement differs widely across nonprofit organizations (Rickey et al., 2011).

Social impact is materialized in social systems, which requires a deeper look at reality as these systems keep changing. Impact measurement across organizations is not an automated process, which is reduced to a formula that is applied without the intervention of an analyst. Analysts play an essential role on the understanding of the collected data, on its treatment, and reporting (Hornsby, 2012).

1.2. EXISTENT METHODOLOGIES

The need for measurement has led to the development of tools that allow organizations to measure their social impact (SAGE, 2012). They have emerged to help nonprofits and investors communicate and share the same measures of value: Global Impact Investing Ratings System (GIIRS), Impact Reporting and Investments Standards (IRIS), and Dow Jones Sustainability Index (DJSI) (McKinsey & Company, 2010). These measures of value are called social indicators and are used by organizations to measure their relationship with stakeholders, to know how they affect their stakeholders, to track performance over time and to measure social impact (Henriques, 2010). Indicators are variables that verify if the outputs were delivered and the changes that follow took place, i.e., if outcomes were achieved (Hornsby & Blumberg, 2013; Wainwright, 2002).

Several organizations’ reporting consists of process indicators analysis and accountability rather than social impact assessment. Accountability means assuming responsibility and being transparent about the way an organization acts and manages performance. Accountability engages stakeholders in understanding sustainability issues that can impact performance and involves stakeholders in the whole process. This understanding is used by organizations to improve business strategies and performance (AccountAbility, 2008). Other authors state that accountability involves the responsibility of undertaking a certain action and the duty to account for it: accountability towards activities and their alignment with institutional goals and contribution to mission fulfillment (Costa, Ramus, & Andreaus, 2011).

GRI (Global Reporting Initiative), AccountAbility, and ISO (International Organization for Standardization) frameworks are approaches to sustainability reporting that can help organizations reach their sustainability goals (Jones & Mucha, 2014). In fact, nonprofit organizations must assess and report sustainability to account for environmental, cultural, economic, and social impacts. It is a beneficial practice not only towards nonprofits and the communities they serve but also to demonstrate transparency to stakeholders and communities (Jones & Mucha, 2014). Nonprofit sustainability demonstrates that organizations are able to deliver their commitments to their stakeholders, which ensures trust, and that societal needs are being met (Weerawardena, McDonald, & Mort, 2010).

Sustainability reporting helps to set goals, measure performance, manage change, and to be aware of positive or negative impacts on environment, society and economy (Global Reporting Initiative, 2013).
and the use of indicator variables helps verify if the outputs were delivered and the changes that follow took place, i.e., if outcomes were achieved (Hornsby & Blumberg, 2013; Wainwright, 2002).

An indicator should be evaluated in the current, past and future periods so that trends can be identified, performance can be improved and impact can be measured, allowing a long-term visualization of the progress of the indicators. There are many different types of indicators and methods that are able to capture the nature of social impact; however, there is none which brings each one of these methods’ characteristics together in a unified way (Henriques, 2010).

One of the multiple sources of indicators on social impacts is the GRI, which provides a set of reporting principles and metrics for organizations that want to report on sustainability. The GRI Framework contains reporting guidelines on every dimension of sustainability that can capture all sides of social impact if designed for a specific industry or organizational sector, but can fail to describe the specificity of social impact of many organizations since the guidelines are designed to be applied to any organization (Henriques, 2010).

Another one is IRIS, a catalog containing a set of accepted indicators to measure social, environmental, and financial performance as well as qualitative metrics that help organizations to put performance in context. These metrics can be tailored to specific sectors or independent of any organizational goals, sectors, and regions (Global Impact Investing Network, 2014).

B Impact Assessment is an impact methodology that provides ratings as result from a survey that assesses organizational performance regarding social and environmental standards. Organizations are scored based on governance and impact on stakeholders. B Rated organizations can be compared with this rating (Best & Harji, 2012). GIIRS Rating uses B Impact Assessment to account for organizational impact on employees, customers, communities and environment, and track improvement over time (B Lab, 2017). GIIRS evaluates organizations and funds on governance, employees, community and environment (Best & Harji, 2012).

Narrative accounting evaluates subjectivity by capturing the subjective experience of stakeholders. As such, it can suffer from manipulation and it can be difficult to quantify. Social indicators despite being less descriptive than narrative accounting are more appropriate to deal with generalized characteristics, and therefore to analyze institutions. Overall, to choose an approach it is necessary to consider the tradeoff between meaningfulness and precision.

Social scientists, investors or the members of nonprofits that are responsible for impact measurement should adopt methodologies that follow the process of impact evaluation defined by the European Union: define objectives; identify stakeholders; gather a set of relevant indicators; measure and validate; communicate, learn and improve. They should also consult documentation such as organization reports regarding activities and results (Grupo de Reflexão para a Avaliação do Impacto Social, 2015).

According to Olsen and Galimidi, one of the main applications of impact measurement is impact investing in which investors either look for an a priori screening of potential investments or want to check if the results their investments are generating make up for the money spent (Olsen & Galimidi, 2008). Nevertheless, there are other goals involved when organizations intend to perform impact measurement that go from reporting to actual impact quantification.
It is a general understanding that organizations that simply want to account for their social responsibility interventions use reporting only methods such as GRI. When their objective is not only to display but also to prove their impact, organizations can perform social impact measurement regarding process, impact, and monetization.

Table 1 exemplifies process methods used by profit, nonprofit organizations or both.

<table>
<thead>
<tr>
<th>Profit</th>
<th>Nonprofit</th>
<th>Both</th>
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<tbody>
<tr>
<td>SRA (Social Return Assessment)</td>
<td>Sustainable Livelihoods</td>
<td>SEAT (Socio-Economic Assessment Toolbox)</td>
</tr>
<tr>
<td>MIF (Measuring Impact Framework)</td>
<td>Lamplight</td>
<td>B Impact Assessment</td>
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<tr>
<td>ACAFI (Atkisson Compass Assessment for Investors)</td>
<td>Outcome Star</td>
<td>SIMPLE (Social IMPact measurement for Local Economies)</td>
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<tr>
<td>LM3 (Local Multiplier 3)</td>
<td>Outcomes Matrix</td>
<td>SAA (Social Accounting and Auditing)</td>
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<tr>
<td>MDG (Millennium Development Goals) Scan</td>
<td>PIA (Participatory Impact Assessment)</td>
<td>SOUL (Soft Outcomes Universal Learning)</td>
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<tr>
<td>GEMI Metrics Navigator</td>
<td>NPC's four pillar approach</td>
<td>Acumen Fund Scorecard</td>
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<td>CEA (Cost-Effectiveness Analysis)</td>
<td>BSc (Balanced Scorecard)</td>
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<tr>
<td>CBA (Cost-Benefit Analysis)</td>
<td>BACO (Best Available Charitable Option)</td>
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<tr>
<td>OASIS (Ongoing Assessment of Social Impacts)</td>
<td>BoP (Base of the Pyramid) Impact Assessment Framework</td>
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<td>WARM (Wellbeing and Resilience Measure)</td>
<td>Cost per Impact</td>
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<td>JET (Journey to Employment framework)</td>
<td>Foundation Investment Bubble Chart</td>
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<td>Theory of Change</td>
<td>Expected Return</td>
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<td>Profit</td>
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<td>Prove It! Toolkit</td>
<td>MIT (Measuring Impact Toolkit)</td>
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<td>PSIA (Poverty Social Impact Assessment)</td>
<td>Benefit-Cost Ratio</td>
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<td>PVSC (Public Value Scorecard)</td>
<td>Social Footprint</td>
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<tr>
<td>Community Impact Mapping</td>
<td>Toolbox for Analysing Sustainable Ventures in Developing Countries</td>
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<tr>
<td>Outcome Mapping</td>
<td>SIA (Social Impact Assessment)</td>
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<td></td>
<td>MIAA (The Investing for Good Methodology for Impact Analysis and Assessment)</td>
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Table 1 – Process methods

Source: (Maas & Liket, 2011a)

Process methods measure the correlation between the outputs and the social goals of an organization, and track the efficiency and effectiveness of its operational processes. Process methods are concerned with the impact value chain, i.e. the process from inputs to outcomes (Figure 1). Inputs encompass the resources (money, time, assets) required to conduct the activities of the project; outputs are indicators from an organization’s activities that can be directly measured; and outcomes can be defined as changes in attitudes, behaviors, knowledge, skills, or status that result from an organization’s activities (e.g. finding a job, getting sick) (Rosenzweig, 2004).

![Impact value chain diagram](image)

Figure 1 – Impact value chain

Source: (Rosenzweig, 2004)

The following paragraphs give a general idea of the basis of these various process methods in the words of several authors:
1. SRA is based on simplicity and flexibility as it aims to guide users in impact assessment and to explain impact calculations. It measures financial, social and environmental impacts that can be compared to investments, producing a ratio of benefits to investment. It can evaluate or forecast impacts (Courtney, Kambites, & Moseley, 2014).

2. MIF complements GRI and helps organizations understand their contribution and use this knowledge in their decision-making process (World Business Council for Sustainable Development, 2008).

3. ACAFI is a framework designed for investors, which is integrated with GRI and DJSI reporting guidelines of CSR. It encompasses five areas of impact: nature, society, economy, well-being, and synergy (the link between the four previous areas). Each of these areas is rated in a point-scale rating system according to several indicators (Rosenzweig, 2004).

4. LM3 measures local economic impact, helps organizations improve that impact and makes them think about how local money flows (New Economics Foundation, 2009).

5. MDG Scan assesses the contribution of organizations to the Millennium Development Goals by calculating for each MDG the number of people that benefit from commercial activities and community investments (Callan, 2012).

6. GEMI Metrics Navigator helps to identify metrics to improve business strategy, measure performance, and manage environmental, social and economic issues. It is used to inform business decisions, manage consequences, and respond to issues identified by stakeholders (Global Environmental Management Initiative, 2007).

7. Sustainable Livelihoods is an approach that links poverty reduction, sustainability and empowerment processes and aims to balance social equity, ecological security, and economic integrity. It measures the assets an individual or community may have – financial, social, personal, physical or human – and identifies which must be developed to reduce poverty. Sustainable livelihoods come from an individual’s ability to overcome difficult situations and increase assets without compromising the livelihoods of other people (Hoon, Singh, & Wanmali, 1997).

8. Lamplight measures the progress of individuals and reports on inputs, outputs and outcomes by taking information from project participants and staff, which is then aggregated. It can be a monitoring or case managing tool (Wilkes & Mullins, 2012).

9. Outcome Star measures progress on an individual, project or organizational basis and is based on an individual’s journey towards independence (Wilkes & Mullins, 2012). It focuses on vulnerable service users such as homeless people, drug users, and alcoholics (Rinaldo, 2010).

10. Outcomes Matrix maps social need by plotting outcomes and indicators against nine outcome areas, such as employment, training and education, and physical health (Evill, 2014).

11. PIA involves participatory methods to measure change and understand what caused it. It identifies which factors are related to the organization’s project and calculates its corresponding weights. It overcomes problems such as measuring activities instead of real
impact and attributing impact to other factors other than the organization itself. It does so either by evaluating the relative importance of project and non-project factors that contributed to change; comparing project and non-project activities; comparing changes in project participants with non-project participants or comparing project participants before and after the project. It measures indicators related to change through ranking or scoring methods and produces numbers that are based on opinions, perceptions and feelings (Catley et al., 2014).

12. NPC’s four pillar approach provides guidance towards developing an effective measurement framework that is practical and understandable. It checks if nonprofits are measuring things correctly, reports on their achievements, and helps to identify areas of improvement. It comprises four steps: “map your theory of change”, “prioritize what you measure”, “choose your level of evidence”, and “select your sources and tools” (Kazimirski & Pritchard, 2014).

13. CEA measures the impact of an area of a program at a time by calculating a ratio of cost per unit change in an outcome. It aggregates the impacts of all areas, paying attention to the use of common units (Karoly, 2008).

14. CBA is an economic analysis that assesses social impacts of an investment based on the net present value, benefit-cost ratio and internal rate of return. Costs and social impacts are monetized (Rosenzweig, 2004).

15. OASIS is a social management information system that tracks progress on short- to medium-term outcomes and assesses the ongoing social outputs and outcomes of organizations (Rosenzweig, 2004).

16. WARM measures community residents’ well-being and other measures related to the circumstances of the local area, and assesses how resilient the community is. It helps local areas understand their capabilities and needs in order to define priorities for action. It does not intend to rank performance of different areas but to reduce the impact of community vulnerabilities (Mguni & Bacon, 2010).

17. JET is a framework designed to understand and measure the impact an organization has on the journey to employment of young people and to identify the factors that play a part in their journey. It provides a model that can help organizations think about their impact, map the outcomes they want to reach, and structure the evaluation process (Copps, Plimmer, Harries, Kail, & Ógáin, 2014).

18. Theory of change shows the path from inputs to activities to outcomes to impact that an organization goes through. It can confirm if activities are aligned with goals, if there are activities that should not be conducted and can provide ways to measure impact (Kail & Lumley, 2012).

19. Prove It! Toolkit focuses on the real changes that matter to people other than on simple outputs. It aims to make evaluation simple and possible within limited resources. It provides files to help in planning and evaluation – project storyboard, survey questionnaire, project reflection workshop, reporting template, evaluation planning template – but requires that
organizations choose the processes based on the story they want to tell (New Economics Foundation Consulting, 2017).

20. PSIA analyzes the impact of policy reforms on the well-being of stakeholders, especially on the poor and vulnerable. It develops an ex-ante analysis of the impacts of reforms, an analysis during their implementation, and an ex-post analysis when they finish (The World Bank, 2003).

21. PVSC comes from Balanced Scorecard’s belief that non-financial measures are also important. It instead uses a strategic model that differs from the competitive strategy model – the public value strategy. This strategy is represented in a triangle that refers to three measurements nonprofits should perform before committing to any strategy: public value perspective, legitimacy and support perspective, and operational capacity perspective (Moore, 2003). PVSC focus on the meaning of contributing to society by measuring impact against people’s basic needs: one creates public value when organizational activities lead to needs fulfilment (Meynhardt, Gomez, & Schweizer, 2014).

22. Community Impact Mapping does not aim to measure impact but to provide a start to think about an organization’s story and journey. It is like a story telling circle that can help to think about change, develop indicators of impact and find a way to measure impact (Byrne, 2005) by linking an organization to its activities (Rinaldo, 2010).

23. Outcome Mapping focuses on outcomes that can lead of impact development, not aiming to prove a cause and effect relationship. These outcomes are seen as changes in behavior, relationships, actions or activities that are within the influence of the organization and that form the basis of more prominent accomplishments that without them could not be sustained. It focuses on organizational contribution to impacts and not attribution, not disregarding the importance of impact, by evaluating whether the way an intervention has contributed to changes will be sustainable in the future. It comprises intentional design (goals identification and strategy planning), outcome and performance monitoring, and evaluation planning (Earl, Carden, & Smutylo, 2001).

24. SEAT aims to improve the management of the social and economic impacts of operations and to get them a more strategic view regarding their interactions with social issues. The connections between social, economic and environmental issues are considered in the identification of impacts (Anglo American, 2003). It provides profiling of the local area of operation, impact assessment, and social performance management, and it helps to develop a social management plan and report (Anglo American, 2012).

25. B Impact Assessment provides ratings as result from a survey that assesses organizational performance regarding social and environmental standards (Best & Harji, 2012).

26. SIMPLE is based on a four-bottom-line approach, focusing on financial, economic, social and environmental impacts. It aims to decrease the complexity of impact measurement for training and management purposes in five stages: scope it (impact conceptualization); map it (impacts identification and prioritization); track it (impact measures development); tell it (impact reporting) and embed it (results integration in decision making) (McLoughlin et al., 2009).
27. SAA is a framework that assesses the social, economic and environmental impact of an organization, as well as organizational processes in strategic planning, human resources, governance and accountability, financial management and sustainability, and environmental and economic impact (Zappalà & Lyons, 2009).

28. SOUL is a framework that measures informal learning progression and analyses service delivery. It aims to improve service provision through employee and learners' development of their soft outcomes. It assumes soft outcomes to be as important as hard outcomes as they lead to increased motivation, responsibility, confidence, personal appearance, time management and teamwork, i.e., that society benefits from things that do not necessarily involve getting a job or taking an accredited course (Butcher, Foster, Marsden, & Mckibben, 2006).

29. Acumen Fund Scorecard evaluates social venture investments and tracks progress on outcomes likely to lead to impact (Rosenzweig, 2004).

30. The Balanced Scorecard is a framework that collects and integrates metrics along the impact value chain. It measures operational performance regarding financial, customer, business process, and learning-and-growth and integrates them in the organization’s strategic planning (Rosenzweig, 2004).

31. BACO helps investors decide where to invest as it calculates where the capital will be most effective, i.e., where it will produce the greatest social output. This is accomplished by comparing the investment’s social impact with the existing charitable options for that same social issue. Nevertheless, it does not capture long-term impact nor the qualitative aspects of the change nor is capable of comparing impact (Acumen Fund, 2007).


33. Cost per Impact assesses where money can have the greatest impact, allowing donors to evaluate their philanthropic opportunities (University of Pennsylvania. The Center for High Impact Philanthropy, 2017). It is related to high impact philanthropy as it helps a donor in its decision-making process by providing him with an empirical definition of success for a specific objective (from previous experience), associated with the costs required to achieve that success (University of Pennsylvania. School of Social Policy & Practice., 2017).

34. Foundation Investment Bubble Chart assesses the relative performance and total philanthropic investment against performance indices defined by management teams. It measures organizational performance across multiple areas and investment by foundation, and allows comparison between areas (Tuan, 2008).

35. Expected return informs the philanthropist of which program uses his donations most effectively by calculating the predicted benefit per dollar invested (Brest, Harvey, & Low, 2009). By evaluating potential investments, givers will not deprive initiatives worth of funding and will maximize the return on their limited resources (Redstone Strategy Group, 2008).
36. Measuring Impacts Toolkit guides organizations through the development of a learning community strategy and a community learning plan. It incorporates evaluation and measurement from the beginning of the project (Wheeler & Wong, 2015).

37. Benefit-cost ratio compares the impact of different grants in solving different issues and identifies the factors that can decrease or improve the impact of poverty programs. The goal is to find ways to cut poverty as much as possible by spending donors’ money wisely (Robin Hood, 2017).

38. Social footprint helps organization measure, manage and report their sustainability performance. It measures impacts on human, social and constructed capital in relation to standards that impacts should have to be in order to be sustainable (McElroy, 2014).

39. Toolbox for Analysing Sustainable Ventures in Developing Countries deals with initiatives that support sustainable ventures – donor programs, award schemes, investors, professional education programs and policy makers. This toolbox identifies, evaluates, advises, and promotes sustainable ventures. It also identifies the determining factors of success and assesses the costs and benefits of business activities (United Nations Environment Programme, 2009).

40. SIA comprises the analysis, monitoring and management of intended and unintended social consequences, positive or negative, of interventions and the resulting changes. It collects baseline data to perform impact assessment, recommends mitigation measures and coping strategies, and helps to develop monitoring and management programs (Vanclay, 2003).

41. MIAA presents a standardized procedure for the collection and synthesis of quantitative and qualitative data for impact evaluation. Evaluation encompasses social and financial considerations as this framework aids investors in their investment decisions. It is divided into confidence, which encompasses organization’s financial and operational features, and impact, which comprehends social and environmental benefits. Before those phases there is also mapping, in which organizations are mapped in order to form a profile regarding location, sector, size, and other aspects. The impact section is structured in mission-fulfilment (organization generating impact), beneficiary perspective (beneficiary receiving impact), and wider impact (world beyond the organization which is also impacted). MIAA also identifies areas of improvement and provides guidance for impact reporting fitting all the previous areas as an extension of impact measuring (Hornsby, 2012).

Impact methods analyze the effect of the relationship between outputs and outcomes, and compares it to the next best alternative (Rosenzweig, 2004). Table 2 exemplifies impact methods used by profit, nonprofit organizations or both.
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<thead>
<tr>
<th>Profit</th>
<th>Nonprofit</th>
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<tbody>
<tr>
<td>MIF (Measuring Impact Framework)</td>
<td>JET (Journey to Employment framework)</td>
<td>SROI (Social Return on Investment)</td>
</tr>
<tr>
<td>Poverty Footprint</td>
<td>PIA (Participatory Impact Assessment)</td>
<td>TBL (Triple Bottom Line)</td>
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<td>DJSI (Dow Jones Sustainability Index)</td>
<td>RISE (Real Indicators of Success in Employment)</td>
<td>DBL (Double Bottom Line)</td>
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<td>OASIS (Ongoing Assessment of Social Impacts)</td>
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<td>LBG (London Benchmarking Group)</td>
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<td>Outcomes Matrix</td>
<td>SAA (Social Accounting and Auditing)</td>
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<tr>
<td>NPC’s four pillar approach</td>
<td>SIMPLE (Social IMPact measurement for Local Economies)</td>
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<tr>
<td>CHAT (Charity Analysis Tool)</td>
<td>BoP (Base of the Pyramid) Impact Assessment Framework</td>
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<td>CBA (Cost-Benefit Analysis)</td>
<td>Benefit-Cost Ratio</td>
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<tr>
<td>PSIA (Poverty Social Impact Assessment)</td>
<td>B Impact Assessment</td>
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<td>CR (Corporate Responsibility) Index</td>
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<tr>
<td>MIAA (The Investing for Good Methodology for Impact Analysis and Assessment)</td>
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Table 2 – Impact methods

Source: (Maas & Liket, 2011a)

Similarly to the former section, the following paragraphs summarize the main characteristics of the impact methods listed in the previous table:

2. Poverty Footprint is a framework that links five poverty dimensions to five areas of organizational practice (United Nations Global Compact. OXFAM, 2015b). It assesses the impacts of an organization on people living in poverty, and therefore helps to identify actions that increase positive impacts and that minimize negative ones, as well as new strategies that can ensure sustainability (United Nations Global Compact. OXFAM, 2015a).

3. DJSI Index despite providing indicators is also an impact methodology that tracks the economic, environmental and social performance of organizations through established indices. These serve as standards for sustainability either for investors or organizations (Corporate Citizenship, 2017b).

4. JET § 17 process methods (Copps et al., 2014).

5. PIA § 11 process methods (Catley et al., 2014).

6. RISE monitors the ongoing social impacts of organizations on its employees through periodic interviews with them. It provides real-time information, which helps managers in decision making (Olsen & Galimidi, 2008).

7. OASIS § 15 process methods (Rosenzweig, 2004).


9. NPC’s four pillar approach § 12 process methods (Kazimirski & Pritchard, 2014).

10. CHAT rates results, risks and capacity and produces a report with a narrative and quantitative scores on breadth, depth, and change of impact, risk, difficulty of fundraising, organizational maturity, innovation, scalability, replicability, and geography. It accounts for counterfactual evidence in the measurement of impact if such information is available (Olsen & Galimidi, 2008).

11. CBA § 14 process methods (Rosenzweig, 2004).


13. SROI develops a cost-benefit analysis of a social project or organization (SAGE, 2012) by capturing its impact on society. It quantifies outcomes through the use of financial proxies – approximate measures of low accuracy that aim to stand for outcomes. It takes into account all stakeholders’ financial flows involved in an investment, calculates the net present value of those financial flows, and compares it to the value of the investment (Henriques, 2010).

14. TBL divides the goals of an organization into social, environmental, and financial. Organizations are thus able to measure the impact they have on society in a quantitative way and, consequently, track the success or failure of their social initiatives as if they were financial ones. There is not a universal standard for calculating the TBL nor there are standard metrics, which means organizations can adapt this framework to their specific needs (Slaper & Hall, 2011).
15. DBL divides the goals of an organization into social and financial goals. As TBL, it allows organizations to measure their impact quantitatively and track social initiatives’ performance (Slaper & Hall, 2011).

16. LBG measures corporate community investment, i.e., the voluntary engagement with third sector organizations that goes beyond organizational activities and that includes helping with issues in the communities where they operate (Corporate Citizenship, 2014). It is an input/output model that allows to perform measurement in terms of resources (inputs) and results (outputs and impacts, i.e., changes made in communities and in the business). It is aligned with sustainability indices such as DJSI, GRI and CR Index (Corporate Citizenship, 2017a).

17. SAA § 27 process methods (Zappalà & Lyons, 2009).

18. SIMPLE § 26 process methods (McLoughlin et al., 2009).


22. CR Index is a management tool that helps organizations manage and measure their social and economic performance as well as their impacts in their community regarding their corporate responsibility strategy. This index assesses organizations regarding their corporate strategy, integration, management, performance and impact, and ranks them based on this evaluation (Corporate Citizenship, 2017b).

23. MIAA § 41 process methods (Hornsby, 2012).

Monetization analysis places monetary values to social impact, making it the most effective in demonstrating a direct correlation between money invested and social return (Rosenzweig, 2004). Table 3 shows monetization methods among profits, nonprofits and both.
Monetization methods includes one of the most popular social impact measurement methods – social return on investment (SROI) (SAGE, 2012). It has been mostly performed by mission-oriented organizations, namely nonprofits and social enterprises (Henriques, 2010). Nevertheless, SROI, as other monetization methods, is unable to capture the qualitative or subjective side of social issues, which can introduce uncertainty in the way outcomes are classified. Great care should be taken regarding the accuracy, completeness and comparability of the measurements obtained by this type of methods. It is questionable to compare two SROI figures from two different organizations since this method is applied differently from organization to organization in regard to the indicators that are used and to the evaluation of the social outcomes (Henriques, 2010).

The previous assembly of existent methodologies can provide an overview of what has been done to measure impact and prove useful to generalize findings (Bourguignon et al., 2006).

The current metrics to assess social impact of nonprofit organizations and social enterprises do not satisfy nonprofit leaders and managers, private funders and public decision-makers (Bassi & Vincenti, 2015). Literature regarding nonprofit studies, philanthropy, and management lacks a conceptual framework and theoretical and analytical insights (Ebrahim & Rangan, 2014) which makes several authors emphasize the need to develop a metric that addresses social concepts in a unified way and is able to measure progress and impact (Gilligan & Golden, 2009).

One of the things that is lacking in existing metrics is to consider long-term impact and social problems require cross-sector collaboration to achieve that kind of impact. Partnerships play a great part on the achievement of social outcomes that can turn into a lasting impact as they bring different skills, experience and resources (United Way Australia, 2012). Impact measurement should be guided by the help of external evaluators able to build measurement tools and conduct the appropriate data collection methodologies, ensuring credibility, and be tailored to the organization’s activities and mission (Rickey et al., 2011).

To refine the existent methodologies the rigor with which information from different sources is combined must be ensured. It is therefore necessary to integrate and triangulate information from these multiple sources. Impact information has three main dimensions (McCreless & Trelstad, 2012): type (the nature of the impact – outcomes); scale (the number of people affected); depth (the intensity

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<td>LM3 (Local Multiplier 3)</td>
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</tr>
<tr>
<td>SRA (Social Return Assessment)</td>
<td>CBA (Cost-Benefit Analysis)</td>
<td>BACO (Best Available Charitable Option)</td>
</tr>
<tr>
<td>OASIS (Ongoing Assessment of Social Impacts)</td>
<td>MIT (Measuring Impacts Toolkit)</td>
<td>Benefit-Cost Ratio</td>
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Table 3 – Monetization methods

Source: (Maas & Liket, 2011a)
of the change). The social impact of a project is thus the sum of changes in its beneficiaries (depth) for all types of impact and for all people affected (scale). Project-reported information, staff input, qualitative and quantitative research, and literature review must also be gathered and integrated (McCreless & Trelstad, 2012).

Nonprofits that aim to inspire stakeholders with their work should communicate their impact in a clear and transparent manner (New Philanthropy Capital, 2009). Impact reporting should be accessible to everyone that needs it, transparent, verifiable, proportional to the size and complexity of the organization, and a way to connect with stakeholders (Charity Finance Group Institute of Fundraising, 2012). It should also help beneficiaries, funders and donors understand the vision of the organization while staff directs their focus towards results (New Philanthropy Capital, 2009).
2. METHODOLOGY

2.1. STUDY DESIGN

This study proposes a methodology that aims to cover the nuances of social impact measurement mentioned before by relying on a partnership between a nonprofit organization, an investigator and a statistical company that works in the social sector. It is performed with the support of two members of Social Data Lab (SDL) and the team from Campus Social of Santa Casa da Misericórdia da Amadora (SCMA), and consists of individual work, fieldwork, as well as mentoring from SDL.

Since the chosen nonprofit organization (SCMA) is thoroughly examined in order to generate hypotheses and define indicators a case study design is followed (Bryman, 2016). Case studies allow to find patterns in data coming from the comparison of different conditions and circumstances and to establish a basis for evidence about an individual, situation or organization over a period of time (Kazimirski & Pritchard, 2014).

The organization is the data source where information regarding its activities, stakeholders, and official reports is collected. This is achieved through participation in the social setting and exchange of ideas with the organization’s team in order to gather indicators. Privileged information such as relevant documentation is also collected from SDL.

Despite its case study nature, this research aims to be transferable to other nonprofit organizations that seek to measure their social impact. It is difficult to gather an exhaustive list of indicators and have them applied to different nonprofit organizations, which have their own areas of expertise, activities and missions. It is thought, however, to be feasible to gather through literature review a set of general indicators that can work for any nonprofit organization and to define indicators that are specific to an organization based on literature review and qualitative data collection methodologies.

The creation of a methodological guide reflects the diversity of the social sector and the need to measure specific indicators that only relate to a project (Butcher et al., 2006).

This research entails investigation and diagnosis actions including (Bryman, 2016; Social Data Lab¹):

1. **Pre-investigation**
   1.1. Literature review
   1.2. Social Data Lab privileged information collection
   1.3. Nonprofit organization official reports collection
   1.4. Nonprofit organization activities observation

2. **Problematization**
   2.1. Hypotheses first definition

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¹ Social Data Lab. Internal guidelines for social research studies. Not published.
2.2. Indicators first definition

3. Observation

3.1. Data collection methodologies selection

3.2. Sampling methods selection

3.3. Focus groups and semistructured interviews (qualitative)

3.4. Indicators and hypotheses final definition

3.5. Group interviews (quantitative)

3.6. Questionnaires (quantitative)

4. Theorization

4.1. Data analysis

4.2. Hypotheses confirmation or rejection

4.3. Model development

These activities are coordinated, managed and evaluated through meetings with Social Data Lab where fieldwork and developments on the model are discussed. A report with the findings for the nonprofit organization is produced and delivered with the contribution of Social Data Lab and a methodological guide is developed.

2.2. Sampling plan

2.2.1. Target population

The target population of this study consists of the more than six months’ contract holders of the SCMA’s project of Rendimento Social de Inserção (RSI) that were in the project from January 1st 2016 to 28th February 2017.

This target population definition is chosen due to the need to see changes in beneficiaries during data collection, which was thought by Campus Social team to occur after six months in SCMA’s RSI project. It is necessary to include people that were present in the project in 2016 to account for employed people that by the time of the data collection were already out of the program. This is thought to be of the utmost importance given that getting a job can result in a bigger social impact in individuals.

2.2.2. Sampling frame

The sampling frame, i.e., list of all the individuals of the target population, is obtained with the support of SCMA’s team. The team provides a list of 337 individuals that were in the project from January 1st

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2 Social Integration Income (RSI) is a support for individuals and impoverished families, consisting of:
- An insertion contract to help them integrate socially and professionally;
- A benefit in cash to meet their basic needs (Portal do Cidadão, 2015).
2016 to 28th February 2017, employed and unemployed, employed by SCMA or employed by other entities, their contacts and the level of severity of their situations.

2.2.3. Sampling method

Convenience sampling is performed to select the sample of individuals for qualitative and quantitative research. Individuals are selected based on their availability, and for qualitative research also with regard to diversity in terms of life experiences and needs.

A probabilistic random sampling method is not used due to the difficulty to schedule appointments with the beneficiaries in the limited timespan of the study. However, it is considered that the selected sample is a random sample from an infinite population, thus each characteristic (i.e. study variable) of the population’s individuals is represented by a (unknown) probability distribution. Accordingly, a classical statistical inference approach is applicable, even though estimates may have some associated bias (as usual in convenience sampling).

A sample of 33 individuals is considered large enough within a tight schedule since the Central Limit Theorem may be applied. This theorem states that “given a random sample of N observations, the distribution of sample mean approaches normality as N increases, regardless of the shape of the population distribution”. The Central Limit Theorem is commonly applied when the sample size is greater than 30. This is a conservative criterion to account for distributions that are very non-normal like the exponential, which are very rare (Mordkoff, 2016).

2.3. DATA COLLECTION

Data collection is performed in two main phases (Figure 2): qualitative and quantitative research. Qualitative research consists of talking with beneficiaries through focus groups and semistructured interviews to gather ideas to use in quantitative research. Quantitative research consists of applying those thoughts in the construction of the data collection instruments (topic guides and questionnaires) to gather data through group interviews and a questionnaire.
This study is conducted following a mixed methods research strategy as this captures relevant data that only one of the methods, qualitative or quantitative, would not be able to gather (Twersky et al., 2010). It consists of confirmation and discovery where, first, qualitative data gathered by participating in activities, existing bibliography, focus groups, and interviews, are used to generate hypotheses and define indicators. Then, quantitative research is conducted to test them through a questionnaire. Finally, when the hypotheses are confirmed or rejected, the initial theory is revised and a model is constructed based on the variables that are thought to be relevant (Bryman, 2016).

### 2.3.1. Qualitative research

Impact measurement methodologies can benefit from taking in several perspectives such as social assistants’ that may be relevant to understand how beneficiaries experience change or beneficiaries that may confirm if what is being measured is real and valuable.

Proxies can serve to account for beneficiaries that may be less able to express themselves or to understand more deeply their views and to take more control of the subjectivity of their opinions (Hornsby, 2012). This can also serve as triangulation, i.e., a cross-check of information. It is useful to compare the data collected from interviews, focus groups and questionnaires with secondary data sources like direct observation, organization reports, organizational input and literature review (Catley et al., 2014).

Qualitative research intends to gather a set of ideas and understand the nature of the case study’s subject of study – the social impact of the SCMA’s RSI project in its beneficiaries. It allows to identify relevant behavioral patterns, beliefs, opinions, attitudes, and motivations as well as use them in the development of the quantitative instrument of measurement, the questionnaire (Malhotra & Birks, 2006). It is performed to gain a deeper knowledge about the problem under investigation, gather indicators, and generate hypotheses.
Qualitative data collection concerns the contract holders – the SCMA’s Campus Social team and the contract holder’s person of reference (family members, friends or neighbors) are their proxies.

Figure 3 – Qualitative research respondents

2.3.1.1. Focus groups and semistructured interviews

Data collection methodologies encompass two focus groups and three semistructured interviews. One of the focus groups has eight team members and the other one has six contract holders. The semistructured interviews have one person of reference, due to the inability to schedule a third focus group with one person of reference of each contract holder that participated in the focus group. Three topic guides are applied to each group of respondents – SCMA’s team (Annex 1), contract holders (Annex 2) and people of reference (Annex 3).

2.3.2. Quantitative research

Quantitative research intends to test the hypothesis that the social impact produced in the beneficiaries of the project is divided in four dimensions (individual, family, society, and profession) and to measure that social impact. It consists on conducting group interviews and applying a questionnaire to the selected sample of beneficiaries. With this intent, a topic guide (Annex 4) and questionnaire (Annex 6) that explores general change and change in each referred dimension is elaborated. Computers are not used to assist either in group interviews or in questionnaires so as not to introduce a barrier between interviewers and interviewees.

All steps from data collection require deep care regarding the way questions are formulated in order to avoid attribution problems – social changes in the target population have to be attributable to the organization. Questions are formulated explicitly to solely account for changes that resulted from the intervention of the organization, i.e. through the RSI project.

Qualitative data collection participants are not included in this data collection, despite being part of the target population. The use of the same individuals in both processes could be redundant and
potentially inflate the results since qualitative research intends to contribute with ideas to the elaboration of the quantitative instrument of data collection.

2.3.2.1. Group interviews

Group interviews (Annex 4) aim to obtain four special variables of interest, which represent general social impact in each dimension, through the evaluation of four evaluators: two members of SCMA’s team (one of them works directly with the project beneficiaries and the other only knows about its formal aspects and other projects of the same organization), a member from SDL (that is familiar with several projects of social nature and with its measuring) and the investigator. The first one has the closest knowledge of the project and its beneficiaries, the second has worked in other projects of the organization, and the third provides the greater knowledge about the social sector and its social impact measuring issues.

Therefore, the four specialists all have in mind the same concept of social impact and provide each individual with a score regarding the four aforementioned dimensions. Social impact is defined as a set of structural or behavioral changes attributable to an organization, with perennity (excluding social emergency situations, except when complemented with reparative measures), and that have potential relevance to society.

Group interviews are put into practice to assure that the evaluation is based on different opinions from individuals with experience in the social sector. However, in the questionnaire, beneficiaries reply to a question regarding the social impact they experienced so as to evaluate the discrepancy between beneficiaries’ evaluation and evaluators’. They provide an evaluation of the social impact/long-term change regarding four social dimensions caused by the organization in each contract holder.

2.3.2.2. Questionnaire

Questionnaires are the instruments used in conclusive research. These are handed to the contract holders (i.e. beneficiaries) having in mind the indicators that were found adequate for the organization to enable the measurement of the concepts under study. Participants are presented with a questionnaire (Annex 6) guided by a supervisor so that they can ask for help.

Several variables are obtained through a questionnaire applied to the selected sample of beneficiaries (questions Q2 to Q25). Questions are grouped by the four dimensions (Annex 5). The first question is about general change in the life of the beneficiaries (i.e., about general social impact) and the others refer to the specific changes across dimensions.

2.3.2.3. Variable scale

Questionnaires and group interviews use the same scale. This scale was suggested by Social Data Lab based on its experience with the beneficiaries of other nonprofit organizations.

Variables range from 0 to 6 (where 0 stands for no change, 1 for really minor change, 2 for minor change, 3 for neutral, 4 for big change, 5 for really big change, and 6 stands for total change). A scale with a greater number of points (e.g., from 0 to 10) is not used so that respondents understand the scale more easily. Moreover, due to the difficulty evidenced by the beneficiaries in keeping up with the indications given during the questionnaire, a card is presented to the beneficiaries with the scale.
represented through numbers, sentences and pictures so they can respond to questions based on the representation they identify with the most (Figure 4).

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<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>No change</td>
<td>Really minor change</td>
<td>Minor change</td>
<td>Neutral</td>
<td>Big change</td>
<td>Really big change</td>
<td>Total change</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4 – Card shown to the beneficiaries

2.4. DATA ANALYSIS

Data analysis is performed in several steps (Figure 5): first, a correlation matrix is analyzed to see if there are too highly correlated variables that may influence the results. Then, a factor analysis followed by a multiple linear regression is performed considering different groups of analysis variables as follows.

Models not accounting for the dimensions (individual, family, society, and profession):

- all variables with outliers
- all variables without outliers
- without too highly correlated variables with outliers
- without too highly correlated variables without outliers

Models for each dimension (individual, family, society, and profession):

- all variables of a specific dimension with outliers
- all variables of a specific dimension without outliers
- without too highly correlated variables of a specific dimension with outliers
- without too highly correlated variables of a specific dimension without outliers

The methodological framework of the factor analysis and multiple regression are detailed in the following sections, as well as the outlier analysis.

A final regression model is chosen based on its percentage of explained variance. Finally, relevant variables included in the questionnaire are selected to be applied by the nonprofit organization in future studies, and a model is proposed to calculate social impact. Since the formulation of this model was dependent on the analysis of the results, it is detailed in Section 3.4. The proposed formulation is applied to the data collected in this study and may be used with data from future investigations.
Data is analyzed and interpreted using SAS Enterprise Guide®, Excel® and SPSS Statistics® software.

This study’s generic model provides the means to measure the social impact of the organization under evaluation and its structure provides guidance for other organizations to perform their own evaluation. Social impact is defined based on several definitions provided by different authors and on the reasoning found to fit the main objective of this study, as mentioned before, as a set of structural or behavioral changes attributable to an organization, with perennity (excluding social emergency situations, except when complemented with reparative measures), and that have potential relevance to society.

Emergency assistance situations are contemplated in the concept of social impact as it is thought that they allow for the involved individuals to overcome physical, social or mental problems that are necessary to create longer-term impacts in them. Negative impacts are not included in this definition as they are thought to be a result of adverse reactions to the intervention and not to the intervention itself. (Social Data Lab³)

This study’s methodology relates to:

- SOUL framework as it considers not only hard outcomes such as getting a job or qualification to be important but also people’s personal development towards independent living and the changes they go through along that journey that stay with them in the long-term (Butcher et al., 2006);

- MIAA by giving great emphasis to the beneficiaries’ perspective when measuring impact and by providing a methodological guide for organizations to measure impact (Hornsby, 2012).

### 2.4.1. Correlation

The correlation matrix of all variables is analyzed to check if they present some correlation so as to be able to share common factors and to see if too high correlations exist that could introduce redundant information. In this way, in order for the performance of the factor analysis to be satisfactory, it is intended that there are moderate to high correlations between variables as long as they are not too high.

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³ Social Data Lab. Emergency assistance situations and negative social impact: an inclusion of these concepts in the definition of social impact. Not published.
Correlations are analyzed based on the Spearman’s correlation test since variables are ordinal. This non-parametric test measures the association between pairs of variables, and the null hypothesis states that X and Y are independent, i.e. not correlated. A Spearman’s correlation coefficient equal to 1 stands for perfect positive correlation, and equal to -1 stands for perfect negative correlation.

2.4.2. Factor analysis

Factor analysis intends to reduce dimensionality, i.e., reduce the number of original variables in order to shorten the length of the applied questionnaire, and make it more objective as well as easier to apply by SCMA in the future. This technique allows that a smaller number of non-observed variables, named factors, is able to explain the original variables. It is also intended to prevent multicollinearity problems resulting from too high correlation between original variables through the transformation of these variables in non-correlated factors, i.e., orthogonal, a result of the performed factor analysis (Vilares & Coelho, 2011).

This procedure is based on a covariance matrix, since the variables are all in the same scale and this matrix keeps more information than the correlation matrix. Factors are extracted based on principal components and an orthogonal varimax rotation is used, which grants more interpretability to the model by associating each variable to a reduced number of factors, making those factors approximately disjunctive. This way, each factor can be interpreted based on the variables with which it is more correlated. The total variance that is explained by the model does not change with the rotation – only a redistribution of that variance is made.

The usual criteria of model adequacy are evaluated: communalities greater than 0.5 (since it is intended that the proportion of explained variance that is explained by the retained factors is more than half of the variance of each variable) and Bartlett’s sphericity test. The null hypothesis of this test states that the covariance matrix is diagonal, i.e., that variables are not correlated in the population. This hypothesis must be rejected so that the model is adequate.

Based on the questionnaire conducted with the beneficiaries of the project, a factor analysis with the 24 variables is performed to check if this technique allows for grouping variables in the dimensions that were previously considered. Additionally, four factor analyses are performed using the variables from each dimension separately.

The extracted factors are then used as explanatory variables in multiple linear regression models, as detailed in section 2.4.3, and statistically significant factors are identified. The factor analysis allows to assess which variables correlate the most with these factors. These variables are included in the questionnaire recommended for future studies and integrate the proposed model of social impact measurement.

2.4.3. Multiple linear regression

Multiple linear regression defines the behavior of a dependent variable as a linear function of a set of independent (i.e. explanatory) variables whose values are known. It estimates regression coefficients that measure the impact that a unitary variation in an independent variable has in the dependent variable (Vilares & Coelho, 2011).
A multiple linear regression is performed for each of the investigated models (Annex 10) using the extracted factors from factor analysis as independent variables in order to prevent multicollinearity problems (i.e., to assure that the variables to put in the model are independent). Moreover, since an ordinal scale is used in the questionnaire, that is, a discrete scale that only takes finite values from 0 to 6, the use of original variables from the questionnaire in the regression is inviable, making it essential the use of factors and their subsequent interpretation.

Regression models intend to see which factors contribute significantly to the dependent variable – social impact – based on regression coefficients. This variable is created through the social impact evaluation (i.e. long-term change) produced by SCMA in its beneficiaries in the four referred dimensions. This information is gathered in the group interviews and corresponds to the four special variables of interest that were previously mentioned.

To estimate the regression coefficients, the Ordinary Least Squares (OLS) method is used. OLS estimates these coefficients by minimizing the sum of the squared errors for all the observations (Campbell & Campbell, 2008). Hence, this algorithm intends to minimize the residuals (i.e. errors), which are the difference between the actual values of the dependent variable and the values predicted by the regression model (Abbott, 2014).

The obtained regression models are analyzed for their quality of adjustment (i.e. goodness of fit) based on three criteria: adjusted coefficient of determination, test of overall significance of the regression model (F test) and regression coefficients significance tests (t tests) for a significance level of 10%. The factors that show statistically non-significant values are removed.

It should be noted that the coefficient of determination (R-Squared) increases with each addition of independent variables to the regression model. To overcome this issue, the adjusted coefficient of determination (adjusted R-Squared) is considered.

Regression models must conform to the following assumptions in order to provide the best linear unbiased estimators (Vilares & Coelho, 2011): the model must be correctly specified, the average of the residuals must be zero, the variance of the residuals must be constant (homoscedasticity), the observations must be independent, multicollinearity between variables must not exist, and residuals must follow a Normal distribution.

It is assumed that the first assumption is followed since it is not possible to check if there is a missing independent variable that is relevant to the model, even though possible non-normality of the residuals may indicate the need to add new independent variables (which does not apply).

Regarding the second assumption, scree plots of the residuals versus each independent variable are observed to check if they take values around zero. For the third, scree plots of the residuals versus predicted values are analyzed to assure that there is no pattern in the residuals, i.e., that residuals are randomly distributed through the line y=0, and scree plots of the residuals versus each independent variable are also observed to also check if they show a pattern.

It is not necessary to verify the compliance of the forth assumption since observations correspond to different individuals and data is not temporal nor spatial, which guarantees that observations are independent. Regarding the fifth, the use of factors in the regression eliminates the possibility of multicollinearity between variables since factors are independent.
To check the last assumption, the Shapiro-Wilk test is performed to verify the normality of residuals.

The different models that are obtained are compared based on the percentage of variance they explain adjusted for the number of variables included in the model, i.e., by their adjusted coefficient of determination (adjusted R-Squared).

2.4.4. Outliers criteria

It is checked if there are correlations higher than 0.75 between the variables, and models with and without these variables are run in order to evaluate which one produces better results regarding explained variance. The same is performed regarding outliers, observations that distance themselves from the sampling distribution, by creating models with and without these extreme observations.

The elimination of outliers is performed due to the fact that these values can distort the models, overpowering them to the point of ignoring most of the data (Abbott, 2014). Such observations present some discrepancy between their value to the dependent variable and their values to the independent variables. Student residuals with absolute values higher than 2 are considered outliers. The Student residual is defined as the ratio between the residual and an estimate of its standard deviation. A variation of this residual, the RStudent, is used in the detection of outliers as in Figure 6 (Charry, Demoulin, & Coussement, 2012).

![Outlier and Leverage Diagnostics for Depvar](image)

**Figure 6 – Final model outliers**
3. RESULTS AND DISCUSSION

3.1. QUALITATIVE RESEARCH

3.1.1. Focus groups

SCMA’s team

From the focus group with some members of SCMA’s Campus Social team, it is possible to identify the main intervention areas of the RSI project and what are the main objectives it aims to accomplish (Figure 7).

This focus group analysis highlights the beneficiaries’ mindset change as an essential factor to allow them to be able to get a job, namely in the acceptance of part-time job offers, out of their residence areas, and in areas that are different from their previous professional experiences. This mindset change also reflects on their will to change, on feeling appreciated after long periods of unemployment, and on continuing or starting to have future perspectives again.

Contract holders

The need from beneficiaries to expose their specific problems is evident from conclusions of the focus group with some beneficiaries of the project (Figure 8).
In this focus group, it is apparent the existence of training courses that are inadequate to the profile of the beneficiaries (regarding age or preferences), the lack of training for people with low education, and the lack of response to the delivery of CVs in job searching activities.

3.1.2. Semistructured interviews

People of reference

The interviews taken place with contract holders’ people of reference, highlight the need of family help to overcome financial and family difficulties and, once more, the urge of beneficiaries to talk about the problems they face on a daily basis (Figure 9).

![Figure 9 – Contract holders and their families’ main objectives](image)

In the interviews, it is clear the unbalance that is introduced in families resulting from some members of the family being unemployed, having numerous children, and needing food supplies and children support. The propagation cycles of poverty resulting from not taking advantage of potential opportunities that emerge due to lack of availability and the need to live the routine and not plan the future are noteworthy.

It is noticeable that, despite the purpose of the topic guides of gathering specific changes that have happened or that beneficiaries intend to experience, it is difficult for beneficiaries to distance themselves from their daily problems and have the ability to realize the changes that happened to them since their arrival to SCMA and have an open mind to think about the future.

3.1.3. Base indicators

A common methodology along with base indicators allow for comparison between different nonprofit organizations. Base indicators are gathered through the guidance of Social Data Lab specialists and from literature review so as to create indicators that are comparable between nonprofits. These indicators aim to reflect the characteristics that are always present in any social impact project in evaluation:
• perennity, which evaluates to which extent the changes in the beneficiaries are long-term. This rating is given for each social project according to its characteristics;

• depth\(^4\), which evaluates the degree of change felt by the beneficiaries. This rating is given by each individual for each question of the questionnaire based on a scale of change;

• scale, which stands for the number of beneficiaries who experienced change, i.e., how wide is the social impact of the organization;

• severity, which evaluates how severely compromised were the lives of the beneficiaries before any intervention. This rating is given by the SCMA’s team to each respondent according to its knowledge of the situation;

• peculiarity, which evaluates how unique is the project under evaluation. This rating is given by the investigator.

3.1.4. Specific indicators

The adopted methodology supports that there are four dimensions that generate social impact – individual, family, society, and profession. Each one of these dimensions comprises a set of exhaustive and disjunctive outcomes that can improve or decrease the social impact of an organization, and that are measured by indicators. These indicators measure the extent to which beneficiaries changed their lives or have become able to change them as a result of the organization’s intervention. This can be reflected on their behavior, education, social relations, and so on (Hornsby, 2012).

From a bigger list of assembled indicators, only those that are thought to be unique in the representation of changes in the lives of the beneficiaries are selected. The specific indicators integrate the questionnaire that is applied to the selected sample of beneficiaries and provide the database that serve as a starting point to measure social impact.

In this fashion, based on the literature review and qualitative research results, the indicators chosen for the quantitative analysis (questionnaire) are as follows.

<table>
<thead>
<tr>
<th>Individual dimension</th>
<th>Family dimension</th>
<th>Society dimension</th>
<th>Profession dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>self-esteem (Butcher et al., 2006; Copps et al., 2014; Hornsby, 2012; Mguni &amp; Bacon, 2010; New Philanthropy Capital, 2013)</td>
<td>time spent with family (Hornsby, 2012; Nicholls, Lawlor, Neitzert, &amp; Goodspeed, 2009)</td>
<td>will to talk and hang out with other people (Butcher et al., 2006; Hornsby, 2012; Mguni &amp; Bacon, 2010)</td>
<td>literacy and numeracy (Butcher et al., 2006; Copps et al., 2014; Hornsby, 2012)</td>
</tr>
<tr>
<td>self-care (Butcher et al., 2006; Hornsby, 2012; Hornsby &amp; Blumberg, 2013)</td>
<td>family relationships (conflict decrease) (Butcher et al., 2006; Hornsby, 2012; Hornsby &amp; Blumberg, 2013; Mguni &amp; Bacon, 2010; New Philanthropy Capital, 2013)</td>
<td>possibility to have other people to count on or to ask for help (Hornsby, 2012; Mguni &amp; Bacon, 2010)</td>
<td>IT (Information Technology) skills (Butcher et al., 2006; Copps et al., 2014; Hornsby, 2012)</td>
</tr>
<tr>
<td>self-sufficiency (Butcher et al., 2006; Copps et al., 2014; Hornsby, 2012; Hornsby &amp; Blumberg, 2013)</td>
<td>participation in common tasks (Hornsby, 2012)</td>
<td>number of times spent in outdoor activities with friends or</td>
<td>ability to make a good impression to potential employers (Butcher et al.,</td>
</tr>
</tbody>
</table>

---

4 The terms depth and social impact are used interchangeably from this page on.
Indicators such as *will to change, to improve life* and *ability to search for and eventually get a job* are selected based on the more objective ideas gathered in the qualitative research formulated by the SCMA’s team. They are also complemented with literature review in their behalf.

### 3.2. DESCRIPTIVE STATISTICS

#### 3.2.1. Sample characteristics

Data collection process results in a sample of 33 individuals of a total of 337 of the target population of the study. This sample encompasses 26 women and 7 men (Figure 10), from which 30 are unemployed and 3 are employed\(^5\) upon data collection (Figure 11). The three employed individuals are women.

---

\(^5\) One of the beneficiaries is no longer employed and another one will soon be unemployed.
3.2.2. Severity of beneficiaries’ situations

The rating given by SCMA’s team to the respondents concerning the severity of their situations shows that most of the situations are severe (Figure 12).
3.2.3. Social impact given by beneficiaries and by evaluators comparison

Social impact perceived by beneficiaries and by evaluators is analyzed and it shows that there is a great discrepancy between the two evaluations (Figure 13): most of the times beneficiaries give bigger ratings than evaluators. Evaluations are the equivalent only in three situations – 27th, 30th and 33rd observations.

This discrepancy reinforces the idea that in the future the evaluation performed by the evaluators cannot be replaced by beneficiaries’, despite the limitation of relative subjectivity that the first evaluation presents (see Limitations and recommendations for future works section). Besides, since beneficiaries’ evaluation is already present in the definition of the independent variables of the regression models, to use their evaluation once more in the construction of the dependent variable could result in a redundant model.
3.2.4. Employed and unemployed responses comparison

The difference between the average of responses to the 24 questions of the questionnaire (excluding the first one concerning general social impact) of employed and unemployed individuals is analyzed (Figure 14). It is noticed that being employed does not translate into more favorable responses to questions.

![Bar chart showing comparison between employed and unemployed responses](image)

**Figure 14 – Employed and unemployed individuals’ responses**

The same procedure is conducted to the 24 questions grouped by dimensions so as to better analyze the differences between the averages of responses of employed and unemployed individuals (Figure 15). It is shown that the social impact of employed individuals in the individual and family dimensions is greater than that of unemployed individuals, contrarily to what happens in social and profession dimensions in which social impact is greater for unemployed individuals.

---

6 Note that there is a big different between the sampling dimensions of employed and unemployed individuals, which can bias the results.
3.2.5. Responses per questions

Beneficiaries’ responses are analyzed, regardless of them being employed or unemployed, and it shows that question 5 (To what extent has this project contributed, or not, to improve your ability to deal with daily problems and difficulties?) presents the highest average of responses, and question 24 (To what extent has it contributed, or not, to improve your ability to create your own business?) presents the lowest (Figure 16).
3.2.6. Responses per dimensions

The same procedure is followed to the variables divided by dimensions, which shows that the individual dimension presents the highest average of responses and the family dimension presents the lowest (Figure 17).

![Average Response by Dimension](image)

**Figure 17 – Beneficiaries’ responses per dimensions**

3.3. DATA ANALYSIS

3.3.1. Correlation

The p-values for the test of association between pairs of variables presented in the correlation matrix (Annex 8) show that some variables are not significantly correlated since some presented p-values are higher than the usual significance levels (1%, 5%, and 10%). Only the family dimension shows variables with high correlations, these with statistical significance (pairs Q9 and Q10, Q11 and Q12), so statistical analyses without variables too correlated are performed only for this dimension.

Variables Q9 and Q12 are eliminated in the models without too highly correlated variables since it is noticed that, comparing to the variable with each they are highly correlated (Q10 and Q11, respectively), these are the ones that present less correlation with the factors that result from factor analysis (Annex 9).

3.3.2. Comparison between models

Correlation analysis is performed before the development of the different models (Annex 10). Later analyses – factor analysis and linear multiple regression – are performed for each one of those models with the intent of selecting the most adequate model.

It is noticed that the models separated by dimensions present a much lower explained variance than the one obtained using all variables simultaneously. That indicates that there may exist more diversity inside the dimensions instead of between dimensions, revealing that this division is not suitable.
By only considering the models obtained using the 24 variables simultaneously, with or without too highly correlated variables and with or without outliers, it is shown that the model with all the variables and without outliers should be the most suitable as it passes the diagnosis checks of the regression and presents the highest percentage of explained variance (see Annex 10 for details).

The results presented in the following sections concern the chosen model – model with all variables and without outliers.

### 3.3.3. Factor analysis

Bartlett’s sphericity test shows a p-value smaller than any usual level of significance (Table 5), which means that the null hypothesis that variables are not correlated is rejected, justifying factor analysis adequacy.

<table>
<thead>
<tr>
<th>Bartlett's Test of Sphericity</th>
<th>Approx. Chi-Square</th>
<th>683.880</th>
</tr>
</thead>
<tbody>
<tr>
<td>Df</td>
<td>276</td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 – Bartlett’s sphericity test

None of the variables presents communalities smaller than 0.50, which means that factors explain most of the variables variance (Table 6). This way, it is not necessary to remove any of the variables and it is possible to proceed with factor analysis.

14 factors that explain 97.69% of total variance are retained by Kaiser’s criterion (eigenvalues higher than 1) (Table 7). The factor analysis rotated pattern (Annex 9) of the 14 retained factors is shown in Figure 18.

The retained factors designation is detailed in Figure 18. Even with no variable with a correlation higher than 0.5 with factor 14, this factor is named based on the variable with which it correlates the most – Q11: concern for helping family (see highlight in green of Annex 10).
| Variable | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 | Q21 | Q22 | Q23 | Q24 | Q25 |
|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Communality | 0.97 | 0.98 | 0.95 | 0.98 | 0.96 | 0.99 | 0.98 | 0.99 | 0.93 | 0.99 | 0.95 | 0.99 | 0.97 | 0.99 | 0.98 | 0.99 | 0.99 | 0.98 | 0.99 | 0.98 | 0.99 | 0.99 | 0.99 |

**Table 6 - Communalities**

<table>
<thead>
<tr>
<th>Eigenvalue</th>
<th>Difference</th>
<th>Proportion</th>
<th>Cumulative</th>
<th>Eigenvalue</th>
<th>Difference</th>
<th>Proportion</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>42.9889315</td>
<td>32.4364444</td>
<td>0.4299</td>
<td>13</td>
<td>1.239352</td>
<td>0.2276998</td>
<td>0.0124</td>
</tr>
<tr>
<td>2</td>
<td>10.5522871</td>
<td>2.6049511</td>
<td>0.1055</td>
<td>14</td>
<td>1.0116522</td>
<td>0.3184922</td>
<td>0.0101</td>
</tr>
<tr>
<td>3</td>
<td>7.947336</td>
<td>0.9334443</td>
<td>0.0795</td>
<td>15</td>
<td>0.69316</td>
<td>0.1713289</td>
<td>0.0069</td>
</tr>
<tr>
<td>4</td>
<td>7.0138917</td>
<td>1.7798006</td>
<td>0.0701</td>
<td>16</td>
<td>0.5218311</td>
<td>0.1930777</td>
<td>0.0052</td>
</tr>
<tr>
<td>5</td>
<td>5.2340911</td>
<td>0.3516585</td>
<td>0.0523</td>
<td>17</td>
<td>0.3287534</td>
<td>0.0683332</td>
<td>0.0033</td>
</tr>
<tr>
<td>6</td>
<td>4.8824326</td>
<td>0.633052</td>
<td>0.0488</td>
<td>18</td>
<td>0.2604201</td>
<td>0.0855762</td>
<td>0.0026</td>
</tr>
<tr>
<td>7</td>
<td>4.2493806</td>
<td>0.6525643</td>
<td>0.0425</td>
<td>19</td>
<td>0.1748439</td>
<td>0.0338359</td>
<td>0.0017</td>
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<tr>
<td>8</td>
<td>3.5968163</td>
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<td>20</td>
<td>0.1410081</td>
<td>0.0594144</td>
<td>0.0014</td>
</tr>
<tr>
<td>9</td>
<td>2.7748242</td>
<td>0.0752242</td>
<td>0.0277</td>
<td>21</td>
<td>0.0815937</td>
<td>0.0369498</td>
<td>0.0008</td>
</tr>
<tr>
<td>10</td>
<td>2.6996001</td>
<td>0.7207407</td>
<td>0.027</td>
<td>22</td>
<td>0.0446439</td>
<td>0.0082584</td>
<td>0.0004</td>
</tr>
<tr>
<td>11</td>
<td>1.9788594</td>
<td>0.4601648</td>
<td>0.0198</td>
<td>23</td>
<td>0.0363856</td>
<td>0.0129217</td>
<td>0.0004</td>
</tr>
<tr>
<td>12</td>
<td>1.5186946</td>
<td>0.2793426</td>
<td>0.0152</td>
<td>24</td>
<td>0.0234639</td>
<td>0.0002</td>
<td></td>
</tr>
</tbody>
</table>

**Table 7 - Eigenvalues of the covariance matrix**

Total = 99.9942529; Average = 4.1664272

Total = 99.9942529; Average = 4.1664272
## Factor 1: FAMILY INTERACTIONS
- time spent with family
- family relationships (conflict decrease)
- participation in common tasks

## Factor 2: INDIVIDUAL CAPACITATION
- self-care
- feeling useful in society
- literacy and numeracy
- ability to be organized

## Factor 3: SOCIAL VALUING
- number of times spent in outdoor activities with friends or acquaintances
- respect and considerateness of others
- number of times others need you or ask you for help

## Factor 4: FAMILY VALUING
- concern for helping family
- importance given by your family to your opinions and way of being

## Factor 5: WILL TO CHANGE
- will to change, to improve life

## Factor 6: INDIVIDUAL CHARACTERISTICS
- self-esteem
- ability to deal with day-to-day problems

## Factor 7: ABILITY TO CREATE OWN BUSINESS
- ability to create own business

## Factor 8: SELFLESSNESS
- self-sufficiency
- concern for helping acquaintances or friends

## Factor 9: WILL TO TALK AND HANG OUT WITH OTHER PEOPLE
- will to talk and hang out with other people

## Factor 10: POSSIBILITY TO HAVE OTHER PEOPLE TO COUNT ON
- possibility to have other people to count on or to ask for help

## Factor 11: ABILITY TO MAKE A GOOD IMPRESSION TO POTENTIAL EMPLOYERS
- ability to make a good impression to potential employers

## Factor 12: ABILITY TO SEARCH FOR AND EVENTUALLY GET A JOB
- ability to search for and eventually get a job

## Factor 13: IT SKILLS
- IT skills

## Factor 14: CONCERN FOR HELPING FAMILY
- concern for helping family

---

**Figure 18 – Retained factors designation**
3.3.4. Multiple linear regression

The regression model in Table 9 allows to see which factors contribute significantly to the social impact (dependent variable), which was obtained in the group interviews. The regression model is statistically significant since the test of overall significance (F test) presents a smaller p-value than the usual significance levels (Table 8), thus the null hypothesis stating that all coefficients are equal to zero is rejected. Accordingly, there is evidence that at least one of the regression coefficients is not null.

### Analysis of Variance

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>5</td>
<td>11.98739</td>
<td>2.39748</td>
<td>11.1</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Error</td>
<td>24</td>
<td>5.18483</td>
<td>0.21603</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected</td>
<td></td>
<td>17.17222</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8 – Test of overall significance

However, not all regression coefficients are significant so it is necessary to remove the factors that correspond to those coefficients (p-values of the t-tests highlighted in Table 9).

### Parameter Estimates

| Variable | DF | Parameter Estimate | Standard Error | t Value | Pr > |t| | Variance Inflation |
|----------|----|--------------------|----------------|---------|-------| |                |
| Intercept| 1  | 1.23333            | 0.08572        | 14.39   | <.0001| | 0              |
| Factor1  | 1  | 0.04618            | 0.08718        | 0.53    | 0.6041| | 1              |
| Factor2  | 1  | 0.47306            | 0.08718        | 5.43    | <.0001| | 1              |
| Factor3  | 1  | -0.01166           | 0.08718        | -0.13   | 0.8954| | 1              |
| Factor4  | 1  | 0.01996            | 0.08718        | 0.23    | 0.822 | | 1              |
| Factor5  | 1  | 0.01126            | 0.08718        | 0.13    | 0.899 | | 1              |
| Factor6  | 1  | 0.13949            | 0.08718        | 1.6     | 0.1304| | 1              |
| Factor7  | 1  | 0.20476            | 0.08718        | 2.35    | 0.033 | | 1              |
| Factor8  | 1  | -0.13928           | 0.08718        | -1.6    | 0.131 | | 1              |
| Factor9  | 1  | 0.1911             | 0.08718        | 2.19    | 0.0446| | 1              |
| Factor10 | 1  | 0.00409            | 0.08718        | 0.05    | 0.9632| | 1              |
| Factor11 | 1  | 0.1246             | 0.08718        | 1.43    | 0.1734| | 1              |
| Factor12 | 1  | 0.23689            | 0.08718        | 2.72    | 0.0159| | 1              |
| Factor13 | 1  | 0.23455            | 0.08718        | 2.69    | 0.0168| | 1              |
| Factor14 | 1  | 0.0871             | 0.08718        | 1       | 0.3336| | 1              |

Table 9 – Regression coefficients and significance tests results

The final model contains only six of the 14 factors due to their statistical significance (Table 10). The model has an adjusted determination coefficient (R-Squared) of 0.6352, i.e., explains 63.52% of the total variance (Table 11).
| Variable   | DF | Parameter Estimate | Standard Error | t Value | Pr > |t| | Variance Inflation |
|------------|----|--------------------|----------------|---------|------|---------|-------------------|
| Intercept  | 1  | 1.23333            | 0.08486        | 14.53   | <.0001 | 0                   |
| Factor2    | 1  | 0.47306            | 0.08631        | 5.48    | <.0001 | 1                   |
| Factor7    | 1  | 0.20476            | 0.08631        | 2.37    | 0.026  | 1                   |
| Factor9    | 1  | 0.1911             | 0.08631        | 2.21    | 0.0366 | 1                   |
| Factor12   | 1  | 0.23689            | 0.08631        | 2.74    | 0.0113 | 1                   |
| Factor13   | 1  | 0.23455            | 0.08631        | 2.72    | 0.012  | 1                   |

Table 10 – Final regression model

<table>
<thead>
<tr>
<th>Root MSE</th>
<th>R-Square</th>
<th>Dependent Mean</th>
<th>Adj R-Sq</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.4648</td>
<td>0.6981</td>
<td>1.23333</td>
<td>0.6352</td>
</tr>
</tbody>
</table>

Table 11 – Adjusted R-Square of the final regression model

It is shown by the scree plots of the residuals by each independent variable that residuals take values around zero, which indicates that the average of residuals is zero (Figure 19).

A tendency on the residual is not verified, either on the scree plots of the residuals versus predicted values (Figure 20) or on the scree plots of residuals versus each independent variable. This result is also supported by the LOESS fit that highlights patterns in data (Figure 21). This way, homoscedasticity of the residuals is assumed.
Figure 20 – Scree plot of residuals versus predicted values

Figure 21 – Scree plots of residuals versus each independent variable with LOESS Smooths

It is observed that the Shapiro-Wilk test shows a p-value that is higher than the usual significance levels (Table 12), which means that the null hypothesis that the residuals follow a Normal distribution is not rejected, thus guaranteeing the normality of residuals.
### 3.3.5. Final variables/specific indicators

The variables that are more highly correlated with the factors of the final regression model are selected (for details see Annex 9 – factors 2, 7, 9, 12, and 13). These factors contain one or more variables that are part of the final questionnaire that is to be applied in the future by SCMA. Those eight variables (Table 13) correspond to a subset of specific indicators (listed in Section 3.1.4). Factor 2 is designated as “individual capacitation” (as seen in Section 3.3.3.) since it is composed by variables that relate to the capacitation of individuals in terms of individual and professional competencies. The remaining factors have the name of the only variable that is more relevant to them.

Therefore, SCMA gets eight specific indicators (organization specific) and five base indicators (adequate for all Portuguese nonprofit organizations as described in Section 3.1.3).

<table>
<thead>
<tr>
<th>Factor 2 (individual capacitation)</th>
<th>Factor 7</th>
<th>Factor 9</th>
<th>Factor 12</th>
<th>Factor 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>self-care</td>
<td>ability to create own business</td>
<td>will to talk and hang out with other people</td>
<td>ability to search for and eventually get a job</td>
<td>IT skills</td>
</tr>
<tr>
<td>feeling useful in society</td>
<td>literacy and numeracy</td>
<td>ability to be organized</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 13 – Variables of the factors retained in the final regression model

### 3.4. Social impact measurement model

A measure of the social impact of a project should allow for comparison between organizations (i.e. measure of absolute social impact), and relative social impact should provide an internal measure for each organization.

To calculate the social impact of a project, either relative or absolute, one must consider specific indicators (questions/independent variables) and base indicators (peculiarity, depth, severity, perennity and scale) as mentioned in Sections 3.1.4. and 3.1.3, respectively. The database used by nonprofits to compute social impact should be composed by respondents (rows) and questions (columns), corresponding to (at least) the eight selected variables (Table 13) that constitute the specific indicators. For this reason, the proposed formulation of the social impact measurement model considers the questionnaire’s variables instead of the scores of the factors used in the regression model.
The five indicators used in the proposed social impact measurement model correspond to the five factors retained in the final regression model (individual capacitation; ability to create own business; will to talk and hang out with other people; ability to search for and eventually get a job; IT skills), and they are computed as follows. For each individual/beneficiary, the indicator associated with Factor 2 (individual capacitation) is computed as a weighted average of the individual’s responses to the factor’s selected variables (Table 13). The ponderation is done based on the correlations between Factor 2 and its variables. Since the other factors have only one associated variable (Table 13), the indicator’ value is the individual’s response to the factor’s variable.

The variables/specific indicators, originally on a scale from 0 to 6, are converted to a scale from 0 to 100 using the formula:

\[
Y = \frac{(B - A) \times (x - a)}{(b - a) + A}
\]

In which,

\(a - b\): original scale

\(A - B\): intended scale

Table 14 presents the description and the values of the base indicators depending on each beneficiaries’ situation and on the type of project. Depth is obtained through the weighting of the specific indicators as detailed below. Scale is only considered in the calculation of absolute social impact.
### Base indicators

<table>
<thead>
<tr>
<th>Base indicators</th>
<th>Description</th>
<th>Situation</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale</td>
<td>Nr. of completely impacted beneficiaries</td>
<td>Fixed value</td>
<td>Nr. of completely impacted beneficiaries</td>
</tr>
<tr>
<td>Severity</td>
<td>How severe is the situation of the beneficiaries before any intervention</td>
<td>Very severe</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Severe</td>
<td>0.83</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not severe</td>
<td>0.50</td>
</tr>
<tr>
<td>Peculiarity</td>
<td>How unique is the project</td>
<td>Unique/very rare</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rare</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not rare</td>
<td>0.80</td>
</tr>
<tr>
<td>Depth</td>
<td>Intensity of the change experienced by the beneficiaries</td>
<td>Indicators</td>
<td>weighted average</td>
</tr>
<tr>
<td>Perennity</td>
<td>To which extent the changes produced by the project are long-term</td>
<td>Very lasting</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lasting</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Slightly lasting</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Table 14 – Base indicators (description and values used in the social impact model)

Source: Social Data Lab

#### 3.4.1. Relative social impact

The relative social impact is obtained in a scale from 0 to 100 using the following formula:

$$\text{Relative social impact} = \text{Peculiarity} \times \text{Adjusted Depth} \times \text{Perennity}$$

In which,

$$\text{Adjusted Depth} = \frac{1}{n} \sum_{i=1}^{n} \left( \text{Severity}_i \times \sum_{j=1}^{k} w_j \times \text{Depth}_{ij} \right)$$

- \(n\) = sample size (number of respondents)
- \(k\) = number of indicators
- \(w\) = indicator weight
- \(i\) = individual (specific respondent)
Adjusted depth consists of the average of the values of individuals’ depth accounting for each individuals’ severity.

The weights of each indicator (w) are calculated through the ratio between each regression coefficient \( \beta \) and the sum of the \( \beta \) values in order to obtain standardized weights (Table 15).

### Table 15 – Indicators’ weights in the social impact model

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Regression coefficient ( \beta )</th>
<th>Weight (w)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual capacitation</td>
<td>0.47306</td>
<td>0.35</td>
</tr>
<tr>
<td>Ability to create own business</td>
<td>0.20476</td>
<td>0.15</td>
</tr>
<tr>
<td>Will to talk and hang out with other people</td>
<td>0.1911</td>
<td>0.14</td>
</tr>
<tr>
<td>Ability to search for and eventually get a job</td>
<td>0.23689</td>
<td>0.18</td>
</tr>
<tr>
<td>IT skills</td>
<td>0.23455</td>
<td>0.17</td>
</tr>
</tbody>
</table>

*The presented values are rounded, thus it seems that they do not sum 1.*

3.4.2. **Absolute social impact**

The absolute social impact is obtained by multiplying the Relative social impact (in a scale from 0 to 1) by the value of the Scale indicator (number of beneficiaries completely impacted, i.e., number of target population individuals):

\[
\text{Absolute social impact} = \text{Scale} \times \text{(Relative social impact)} / 100
\]

3.4.3. **Case study application of the model**

Table 16 presents, for one individual, the weighted average obtained for the “Individual capacitation” indicator and his responses for each one of the other indicators (converted to a scale from 0 to 100).

### Table 16 – Indicators’ values for one individual

<table>
<thead>
<tr>
<th>Individual capacitation</th>
<th>Ability to create own business</th>
<th>Will to talk and hang out with other people</th>
<th>Ability to search for and eventually get a job</th>
<th>IT skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>73.00</td>
<td>50.00</td>
<td>66.67</td>
<td>100.00</td>
<td>33.33</td>
</tr>
</tbody>
</table>

Each weight (Table 15) is multiplied by the respective indicator’s value (Table 16), and their sum turns into the specific indicators weighted average (Table 17). Their arithmetic average corresponds to depth itself, i.e., to the value obtained by summing the depth for each individual for each indicator and dividing it by the sample size, which results in a depth of 30.42.
According to the level of Severity of each individual – not severe, severe and very severe – the weighted average presented in Table 17 is multiplied by the value associated to that level of severity (see Table 14). That is, since the situation of this individual is severe, the value assigned is 0.83. Therefore, this individual’s depth accounting for his severity is given by 66.05 * 0.83 = 54.82.

The average of the 33 values of individuals’ depth accounting for each individuals’ severity, designated by adjusted depth, is equal to 24.59. Finally, this value is multiplied by the project’s peculiarity (0.90) and perennity (1.00) to calculate the relative social impact. Accordingly, the relative social impact is computed as

\[
\text{Relative social impact} = 0.90 \times 24.59 \times 1.00 = 22.13
\]

Perennity takes a value of 1 since the RSI project is a project of professional education, capacity development, self-sufficiency and autonomy, which is considered by SDL as one of the kinds of projects that should get a better ponderation. Peculiarity takes the value 0.90 since it is considered that this project is rare in its geographical area and that beneficiaries would hardly be able to perform the activities promoted by this project in case it did not exist.

To calculate the absolute social impact of the project, relative social impact (in a scale from 0 to 1) must be multiplied by the value of the Scale indicator (number of beneficiaries completely impacted). Hence, the absolute social impact is given by

\[
\text{Absolute social impact} = 337 \times 22.13 / 100 = 74.58 \text{ UCIs (units of complete impact, i.e., individuals)}
\]
4. CONCLUSIONS

The conducted investigation made it possible to conclude that the social impact of the RSI project in its beneficiaries is not uniformly divided in the four dimensions that were conceptualized – individual, family, society, and profession. The variables of each dimension are grouped in an uneven and mixed way in the factor analysis results, and they explain very little when analyzed by dimensions, thus revealing that this division may not be the most adequate.

Regarding the most representative variables of social impact, none of the variables of the family dimension are significant and the remaining dimensions present distinct contributions. *Individual capacititation* is the indicator that is more representative of social impact.

The calculation of the relative social impact concerning the 2016 case study showed, on a scale of 0 to 100, a value of 22.13 and a value of 74.58 UCIs of absolute social impact.

The 24 variables originally used in the questionnaire were reduced to eight, allowing the future data collection to be easier and less demanding. This should consist on the application of the questionnaire to the RSI project beneficiaries followed by the calculation of the relative social impact using the proposed formulation.

The methodology that was followed in this investigation can be adopted by other nonprofit organizations in other activity sectors. It is, however, imperative that specific indicators are gathered and weights are calculated from scratch if the organizations’ activity sector is different from the one analyzed in this case study.

It became clear that the social impact measurement process of a nonprofit organization should consist of a qualitative research to gather new indicators that are adapted to the organization under analysis and a quantitative research should put those indicators into practice. Data analysis should narrow down the questions initially included in the questionnaire, allowing for the greatest influencers of social impact to be in the final questionnaire to be applied to beneficiaries.

During this investigation, it was possible to establish that comparability between nonprofits is achieved if it is followed by counterparts and if the same base indicators are used in the calculation of social impact. Relative social impact provides an internal measure of social impact to each organization and absolute social impact provides a measure of comparison between organizations.

For future reference, we can conclude that some tools that were designed for the case study, namely the topic guides, can be adapted to organizations that are similar to the case study organization in terms of its objectives: professional education, capacity development, self-sufficiency, and autonomy of its beneficiaries.

This methodological guide expects to help organizations in their journey towards measuring social impact, to allow spread social impact concepts and existent methodologies to come together, and to provide a basis of understanding of the importance of measuring impact in the development of more proactive organizations with the time and knowledge to focus on what is best for their beneficiaries.
5. LIMITATIONS AND RECOMMENDATIONS FOR FUTURE WORKS

This study shows some limitations that can be summarized as follows:

- Randomized controlled trials/longitudinal studies/control groups were not used to guarantee attribution of the results to the nonprofit organization. Unless this issue was accounted for by asking fully specified questions (*To what extent has this project contributed, or not, to (..)?) when collecting data;

- The dimensions that were though to make up social impact – individual, family, society, profession – have different meanings throughout the study as they are measured in two different ways. First, they represent how much contract holders were impacted by the nonprofit organization based on evaluators’ perceptions; second, they represent the changes that contract holders suffered in each of these dimensions based on their perceptions;

- Due to lack of resources, few evaluators were present in group interviews. These individuals may not be the most suitable to evaluate the social impact created in beneficiaries given the inherent subjectivity in their evaluation;

- It was not possible to schedule a third focus group with a person of reference of each contract holder that participated in the contract holders’ focus group, which resulted in different data collection methodologies in qualitative research;

- Non-random sampling methods were used to select the individuals that participated in quantitative data collection;

- Proxies were not involved in group interviews and questionnaires given that all contract holders were able to respond for themselves without the help of their person of reference, and due to the noticed difficulty to schedule appointments with them;

- The data collection instruments (topic guides and questionnaire) were not pre-tested; nevertheless, this study serves as a pre-test for future investigations.

As recommendations, it is suggested that future works with a greater timespan to investigate and more resources should follow one of the methodologies referred on the first topic to assure that results are undoubtedly attributed to the organization. The selection of individuals to participate in quantitative data collection should consist of a probabilistic sampling method to avoid sampling bias (i.e., to guarantee that the sample is representative of the entire population. Lastly, proxies should respond to data collection instruments since beneficiaries may not notice some changes interventions produced in them and others may detect those changes.
6. REFERENCES


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London: Investing for Good.


recruiting the unemployed and inactive: skills, characteristics and qualifications. Norwich: Department for Work and Pensions.


overview. Sydney, NSW: Centre for Social Impact.
ANNEXES

ANNEX 1 – TOPIC GUIDE SCMA’S TEAM

Introduction (5 minutes)

My name is Luís Valente Rosa and I’m collaborating in the RSI project.

We are going to talk about the changes in the lives of the beneficiaries of the RSI project that result from the activities they participate in.

If you don’t mind, I will record everything you say here today. However, your answers will remain confidential.

Thank you for your participation.

Changes (30 minutes)

1. I would like to start off by talking about the project’s beneficiaries and to ask you to identify what reasons lead them, in your opinion, to participate in this project.

2. What changes does SCMA expect to observe in these beneficiaries?

   (try to get concrete examples)

3. Are any of those changes already noticeable?

4. Which are, in your opinion, the easiest and toughest changes to occur?

SCMA action (15 minutes)

5. What do you think are the biggest assets of Santa Casa in helping beneficiaries to accomplish those changes?

6. Can you give me examples of changes that Santa Casa has already helped to accomplish? And examples of ones that were not possible to be accomplished?
Introduction (5 minutes)

My name is Catarina and I am an intern here at Santa Casa da Misericórdia. I’m doing a study about RSI’s beneficiaries that are associated to Santa Casa.

We are going to talk about changes in the lives of beneficiaries that result from the activities they participate in.

If you don’t mind, I will record what you tell us here today.

Your answers are confidential. Be as honest as possible.

I thank you for your participation that will be essential to improve the activities of Santa Casa da Misericórdia in the future.

Warming up (15 minutes)

1. What do you expect for 2017? What are your wishes?

Change resistance (20 minutes)

2. What was the greatest difficulty you felt when you arrived at Santa Casa?
3. What are the greatest difficulties you feel in a daily basis?

Changes (30 minutes)

4. Do you think there is something that you need to change in your lives? What is that?
5. Considering the examples you gave, which ones do you consider to be the most important ones?
6. From those examples, which ones are the easiest and the toughest to change?
7. What do you think you need to change in your life to make those changes happen?
Changes regarding SCMA (20 minutes)

8. How do you think Santa Casa can help for those changes to happen?

9. What changes did Santa Casa actually helped to happen? Give me examples.

10. What changes did Santa Casa did not help to happen? Give me examples.
Introduction (5 minutes)

My name is Catarina and I’m an intern here at Santa Casa da Misericórdia. I’m doing a study about RSI’s beneficiaries that are associated to Santa Casa.

With that in mind, we are going to talk about the changes in the lives of the beneficiaries of this project that result from the activities they participate in.

If you don’t mind, I will record everything you say here today.

Your answers are confidential. Be as honest as possible.

I thank you for your participation that will be essential to improve the activities of Santa Casa da Misericórdia in the future.

Warming up (15 minutes)

Think about your family member that is the contract holder of your RSI contract, let him be your husband/wife, father/mother, grandma/grandpa or son/daughter / friend that comes here to Santa Casa / neighbor that comes here to Santa Casa. This conversation, deep down, it is about that person and not about yourself, which means that I would like you to talk instead of him/her.

1. What do you think that your family member/friend/neighbor expects for 2017? What do you think are his/her greatest wishes?

Change resistance (20 minutes)

2. What was the biggest difficulty your family member/friend/neighbor felt when he/she arrived at Santa Casa?

3. What are the biggest difficulties your family member/friend/neighbor feels in a daily basis?

Changes (30 minutes)

4. Do you think there is something that that person needs to change in his/her life? What is that?

5. Considering the examples you gave, which ones do you consider to be the most important ones?
6. From those examples, which ones are the easiest and the toughest to change?

7. What do you think that person needs to change in his/her life to make those changes happen?

**Changes regarding SCMA (20 minutes)**

8. How do you consider that Santa Casa can help for those changes to happen?

9. What changes did Santa Casa actually helped to happen? Give me examples.

10. What changes did Santa Casa did not help to happen? Give me examples.
ANNEX 4 – TOPIC GUIDE GROUP INTERVIEWS

Introduction (3 minutes)

My name is Luís Valente Rosa. I am part of a company that is external to Santa Casa da Misericórdia da Amadora.

We are here today because we want to help Santa Casa **to measure its social impact** regarding its beneficiaries in the future. With this measurement, Santa Casa can improve its response to the needs of its beneficiaries. This is an informal conversation in which we are not going to evaluate you since our objective is just to create an evaluation model of future applicability and not to conduct an evaluation per se.

We are going to talk to you about some changes that may have occurred in your life since you are in this RSI project.

We already talked to other beneficiaries, your colleagues, that helped us in this process.

Don’t worry. Your answers are confidential.

Following this conversation, you are going to participate in a questionnaire that will help us to complete our study.

We thank you for your participation.

Development (12 minutes)

1. [General] When you integrated this project, what were your main difficulties in life?
2. [Individual] Let’s talk a little bit about yourself... For example, when you woke up did you want to get up? And go out? Did you like to get dressed up? How was your routine? And what about now?
3. [Family] How was it like in your home? Did you get along with your family? Did you eat at the table together regularly? Did you make plans together? Did you talk about what happened in your day when you arrived home? Do you have children? Did you play with them? Did you talk to them about school? And what about now?
4. [Society] Did you get along with your neighbors? Did you have friends to be with? Did you go out with them? Did you use to go to the café? Did you go for a walk in the neighborhood? Did you have someone to ask for something if you needed? What about now?

5. [Profession] What did you do professionally? Did you like to work? Did you search for work? Did you watch the news/read the newspapers? And what about now?

6. Would you like to change some things in your life that you haven’t had the chance to change? What things? Why haven’t you been able to do it?
## ANNEX 5 — QUESTIONS BY DIMENSIONS

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>Let’s talk about your self-esteem, about the confidence you have about yourself, that is, to what extent has this project helped your, or not, to improve your self-confidence?</td>
</tr>
<tr>
<td></td>
<td>And what about your personal care (health, hygiene, presentation), to what extent has this project helped your, or not, to improve it?</td>
</tr>
<tr>
<td></td>
<td>And to what extent has this project contributed, or not, to improve your self-sufficiency, that is, not needing others so much (cooking, making house repairs, manage money)?</td>
</tr>
<tr>
<td></td>
<td>To what extent has this project contributed, or not, to improve your ability to deal with daily problems and difficulties?</td>
</tr>
<tr>
<td></td>
<td>To what extent has it contributed, or not, for you to feel more useful in society (e.g. able to help others)?</td>
</tr>
<tr>
<td></td>
<td>To what extent has it contributed, or not, to improve your will to change and to improve your life?</td>
</tr>
<tr>
<td>Q8</td>
<td>To what extent has it contributed, or not to improve the time you spend with your family?</td>
</tr>
<tr>
<td>Q9</td>
<td>To what extent has it contributed, or not to improve your family relationships (e.g. reduce conflicts)?</td>
</tr>
<tr>
<td>Q10</td>
<td>To what extent has it contributed, or not, to improve your participation in family common tasks?</td>
</tr>
<tr>
<td>Q11</td>
<td>To what extent has it contributed, or not, to improve your concern in helping your family?</td>
</tr>
<tr>
<td>Q12</td>
<td>To what extent has it contributed, or not, to improve the importance your family gives to your opinions and your way of being?</td>
</tr>
<tr>
<td>Q13</td>
<td>To what extent has it contributed, or not, to improve the number of times you participate in outdoor activities with your family (go to events, parties, fairs)?</td>
</tr>
<tr>
<td>Q14</td>
<td>To what extent has it contributed, or not, to improve your will to talk and hang out with other people?</td>
</tr>
<tr>
<td>Q15</td>
<td>To what extent has it contributed, or not, to improve the possibility to have other people you can count on or ask for help?</td>
</tr>
<tr>
<td>Q16</td>
<td>To what extent has it contributed, or not, to improve the number of times you participate in outdoor activities with friends or acquaintances (go to public places – coffee shops, fairs – or events – parties)?</td>
</tr>
<tr>
<td>Q17</td>
<td>To what extent has it contributed, or not, to improve your concern with your acquaintances or friends?</td>
</tr>
<tr>
<td>Q18</td>
<td>To what extent has it contributed, or not, to improve the respect or consideration others have of you?</td>
</tr>
<tr>
<td>Q19</td>
<td>To what extent has it contributed, or not, to improve the number of times others need you or ask you for help?</td>
</tr>
<tr>
<td>Q20</td>
<td>To what extent has it contributed, or not, to improve your ability to read and deal with numbers?</td>
</tr>
<tr>
<td>Q21</td>
<td>To what extent has it contributed, or not, to improve your ability to deal with computers and other technologies?</td>
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<td>Q22</td>
<td>To what extent has it contributed, or not, to improve your ability to cause a good impression with potential employers?</td>
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<td>Q23</td>
<td>To what extent has it contributed, or not, to improve your ability to look for and eventually get a job?</td>
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<td>Q24</td>
<td>To what extent has it contributed, or not, to improve your ability to create your own business?</td>
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<tr>
<td>Q25</td>
<td>To what extent has it contributed, or not, to improve your ability to be organized (be punctual, manage your time, etc.)?</td>
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I would like to ask you some questions about the project you are in at Santa Casa da Misericórdia da Amadora – Rendimento Social de Inserção (RSI) project. We would like to know to what extent has this project helped you change your life for the better. I will show you a card that contains examples of the answers you can give (SHOW CARD). For each one of the subjects I will refer, I would like you to give an answer from 0 to 6, in which 0 means that you think there is no change and 6 that you think there is a total change. The other squares allow you to say there is a minor change, if you choose a square from the left, or that there is a big change, if you choose a square from the right. That is (READ EVERY WORD WITH THE INDIVIDUAL).

Q.1. To what extent has this project helped you, or not, to change your life for the better?

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DOES NOT KNOW 9

Q.2. Let’s talk about your self-esteem, about the confidence you have about yourself, that is, to what extent has this project helped your, or not, to improve your self-confidence? Which square do you choose?

Q.3. And what about your personal care (health, hygiene, presentation), to what extent has this project helped your, or not, to improve it? Which square do you choose?

Q.4. And to what extent has this project contributed, or not, to improve your self-sufficiency, that is, not needing others so much (cooking, making house repairs, managing money)?

Q.5. To what extent has this project contributed, or not, to improve your ability to deal with daily problems and difficulties?

Q.6. To what extent has it contributed, or not, for you to feel more useful in society (e.g. able to help others)?

Q.7. To what extent has it contributed, or not, to improve your will to change and to improve your life?

Q.8. To what extent has it contributed, or not, to improve the time you spend with your family?

Q.9. To what extent has it contributed, or not, to improve your family relationships (e.g. reduce conflicts)?

Q.10. To what extent has it contributed, or not, to improve your participation in family common tasks?
Q.11. To what extent has it contributed, or not, to improve your concern in helping your family?

Q.12. To what extent has it contributed, or not, to improve the importance your family gives to your opinions and to your way of being?

Q.13. To what extent has it contributed, or not, to improve the number of times you participate in outdoor activities with your family (go to events, parties, fairs)?

Q.14. To what extent has it contributed, or not, to improve your will to talk and hang out with other people?

Q.15. To what extent has it contributed, or not, to improve the possibility to have other people you can count on or ask for help?

Q.16. To what extent has it contributed, or not, to improve the number of times you participate in outdoor activities with friends or acquaintances (go to public places – coffee shops, fairs – or events – parties)?

Q.17. To what extent has it contributed, or not, to improve your concern about your acquaintances or friends?

Q.18. To what extent has it contributed, or not, to improve the respect or consideration others have about you?

Q.19. To what extent has it contributed, or not, to improve the number of times others need you or ask you for help?

Q.20. To what extent has it contributed, or not, to improve your ability to read and deal with numbers?

Q.21. To what extent has it contributed, or not, to improve your ability to deal with computers and other technologies?

Q.22. To what extent has it contributed, or not, to improve your ability to cause a good impression to potential employers?

Q.23. To what extent has it contributed, or not, to improve your ability to look for and eventually get a job?

Q.24. To what extent has it contributed, or not, to improve your ability to create your own business?

Q.25. To what extent has it contributed, or not, to improve your ability to be organized (be punctual, manage your time, etc.)?
I would like to ask you some questions about the project you are in at Santa Casa da Misericórdia da Amadora – Rendimento Social de Inserção (RSI) project. We would like to know to what extent has this project helped you change your life for the better. I will show you a card that contains examples of the answers you can give (SHOW CARD). For each one of the subjects I will refer, I would like you to give an answer from 0 to 6, in which 0 means that you think there is no change and 6 that you think there is a total change. The other squares allow you to say there is a minor change, if you choose a square from the left, or that there is a big change, if you choose a square from the right. That is (READ EVERY WORD WITH THE INDIVIDUAL).

Q.1. First of all, let’s talk about your personal care (health, hygiene, presentation), to what extent has this project helped your, or not, to improve it? Which square do you choose?

Q.2. To what extent has it contributed, or not, for you to feel more useful in society (e.g. able to help others)? Which square do you choose?

Q.3. To what extent has it contributed, or not, to improve your will to talk and hang out with other people?

Q.4. To what extent has it contributed, or not, to improve your ability to read and deal with numbers?

Q.5. To what extent has it contributed, or not, to improve your ability to deal with computers and other technologies?

Q.6. To what extent has it contributed, or not, to improve your ability to look for and eventually get a job?

Q.7. To what extent has it contributed, or not, to improve your ability to create your own business?

Q.8. To what extent has it contributed, or not, to improve your ability to be organized (be punctual, manage your time, etc.)?
## Annex 8 – Correlation Matrix

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### Annex 9 – Factor analysis rotated pattern

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ANNEX 10 – MODEL COMPARISON

**Figure 22 – Models with variables simultaneously (with respective adjusted R-Squared values and final number of variables)**

**Figure 23 – Models with variables per dimensions (with respective adjusted R-Squared values and final number of variables)**

**Figure 24 – Models with variables per dimensions without too highly correlated variables (with respective adjusted R-Squared values and final number of variables)**

* The elimination of factors without statistical significance result in an absence of a model.