BEYOND THE BOUNDARIES OF DEFINITIONS
Building an Effective, New and Multicriteria Impact Investing Assessment Tool

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ABSTRACT

Impact investing was established with the objective of facing social problems through investments with a dual return: a financial plus social and/or environmental return. However, academics have not reached a consensus on the definition of impact investing, and there is a gap in the literature regarding the fundamental criteria of impact investing. This lack of consensus has produced serious problems for impact investors, one of which is that investors cannot clearly define their impact expectations at the time of investment, which makes their decision-making processes groundless. For this reason, this study reviews the concept of impact investing and proposes an investment selection model based on several criteria. Through the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS), i.e., a method for multicriteria analysis, we propose an investment selection model as a new, more effective *impact investing assessment tool*. This model is based on a series of aspects, which cover the three main categories that after having carried out an in-depth revision of the relevant literature. This study contributes to filling the gap in the literature about the definition of and criteria for impact investing. In addition, it presents a practical contribution because the *impact investing assessment tool* will be able to help impact investors make more accurate investment decisions. By using the assessment approach presented in this paper, impact investors will be able to compare, in a systematic way, the different options for investment and to prioritize those that best align with the impact criteria.

KEYWORDS

impact investing; impact investors; social impact; decision making; TOPSIS method

INTRODUCTION

The impact investing industry has grown considerably since 2007, when a group of financial and philanthropic actors sponsored by the Rockefeller Foundation first coined the term (Bugg-Levine & Emerson, 2011). According to the Global Impact Investing Network (GIIN), in 2015, there were approximately USD 52 billion under impact investment management and the industry grew to USD 502 billion in 2019; it is expected to reach USD 715 billion in 2021 (Bass, Dithrich, Sunderji, & Nova, 2020; Tekula & Shah, 2016; GIIN, 2016). Even though impact investing has become a trend both in the financial world and at the academic level, the term is recent and there are still not enough studies that delve into the concept (Agrawal & Hockerts, 2019). This lack of theoretical clarity has generated confusion regarding the differences between impact investing and other similar concepts such as socially responsible investing, also called investment with ESG (environment, social, and governance) criteria. The definition of investment with ESG criteria is investments in companies with high standards in these three areas (Widyawati, 2020). In contrast, impact investing is intentionally directed towards social or environmental problems and generates a positive social return, and it has been measured. Although these terms are not synonymous, they can be confused due to their similarities in terms of "social objectives."

Some recent works have reviewed the impact investing concept, which researchers have previously considered an ambiguous term (Agrawal & Hockerts, 2019). This is why they have tried to systematize it. Impact investing has been defined as a way to simultaneously achieve social and financial goals (Rizzello, Migliazza, Carè, & Trotta, 2016). In other words, it holds the promise of tackling social and/or environmental problems while generating economic benefits (Hehenberger, Mair, & Metz, 2019). Perhaps one of the reasons for the lack of clarity in this definition is the difficulty involved in measuring its social impact and making its economic performance comparable with its social performance. Both types of performance are measured in different ways, which makes it difficult to understand if the social impact of impact investing is high compared to its return on investment. Unlike financial accounting, which is highly standardized in terms of reporting and uses quantitative methods, social accounting is relatively complex; it is not standardized, which makes reporting difficult (Ayuso, Sánchez, Retolaza & Figueras-Maz, 2020). In practice, the lack of standardization of social reporting can pose a challenge to truly understanding the extent of a social impact, and some impact investors may report greater impacts than they actually make simply to be included in the category of impact investing. This situation can lead to a risk of greenwashing (Findlay & Moran, 2019) and, as some authors point out, a risk to the legitimacy of impact investment (Agrawal and Hockerts, 2019).

Another problem that the literature has introduced is whether impact investors should give up economic returns at the cost of maximizing social impact or if, on the contrary, social objectives should not preclude the maximization of economic returns (Nicholls, 2010). The problem, once again, seems to be rooted in the measurement of social impact. Although at the financial level, performance is based on an analysis of the profitability/risk binomial, in this industry, it is not clear how social impact should be measured (Hadad & Gauca, 2014; McLoughlin et al., 2009). Undoubtedly, some progress has recently been made regarding a number of measurement methodologies such as social return on investment or SROI (Millar & Hall, 2013), the provision of specific indicators such as Impact Reporting and Investment Standards or IRIS (Jackson, 2013a), or even some social impact management methodologies such as the Impact Management Project (Peterson, Yawson, Knebel, E & Nicholls, 2020). However, the diversity of these

approaches makes it difficult to identify a methodology that allows for intercomparisons between projects and the identification of criteria that can help with making investment decisions.

One of the key issues in the field of finance is investment decision making. In the context of socially responsible investment, this is a fundamental issue because it is important to understand how decision making is applied; thus, it has been widely studied (Ervural, Evren, & Delen, 2018). However, despite this positive trend, scholars have not theorized about certain aspects of impact investing. As Agrawal and Hockerts (2019: 1) clearly state, "Despite the increasing investments in impact investing, scholars have not explored real operational factors and strategies" such as impact investing decision making.

This study must be understood from an approximation and methodological perspective. Although we have derived our results from an investment portfolio of an impact investment fund, they should be understood as an example of possible results. Thus, the aim of our paper is to fill the aforementioned gap and to offer both theoretical and practical contributions. On the one hand, we make a theoretical contribution through a deep literature review on the concept of impact investing, and we offer a strong justification of our selection of the best categories and subcategories that define an impact investment.

We complete this contribution thanks to the skilled knowledge of our expert panel. Our theoretical contribution, therefore, expands and clarifies the definition of impact investing, and this improves our understanding of the difference between an impact investment and another type of investment that the authors have found to be confusing.

On the other hand, a practical contribution from a practitioner's point of view is that the results of this study provide a set of criteria that can serve as a basis for deliberate decision making and help align the economic interests of investors with social impact interests, since impact investors need methods that can be used to understand the adequacy of their investments with impact investing criteria. For this reason, we provide a series of criteria, determining their relevance based on a weighting system, and we identify a tool based on multi-criteria decision methods, specifically the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) method that can be applied to analyze different investments.

To carry out this study, first, we review the concepts of impact investing and of social impact measurement, including their relationships with the field of investment decision making. Later, we develop a theoretical framework with the purpose of sorting out the issue of which impact criteria should be followed when selecting investment targets. In the remainder of the paper, after having conducted a deep review of the literature of reference, we proceed to classify the main characteristics of impact investing by offering different categories and subcategories connected to the concept and to other concepts that are similar in some respect. Third, with the help of the literature and an expert panel, the subcategories are weighted according to their relevance. Finally, we implement a multicriteria decision methodology known as TOPSIS, which we describe in more detail in the section devoted to explaining the methodology that we followed while building our *impact investing assessment tool*.

We use this method as a tool to integrate our results into the decision making processes for choosing impact investments in a systematic, formal way. Through this method, we develop and propose a multicriteria decision making system based on the social impact characteristics of these investments. This system allows us to add social impact to the already standardized levels of financial and risk performance used for ordinary investments. In doing so, this new input facilitates comparisons between different funds and choices among them based on the level of alignment of a given fund with an investor's social impact criteria.

LITERATURE REVIEW

Towards a Conceptual Delimitation: Impact Investing and Related Concepts

During recent years, business organizations have focused their efforts on optimizing the creation of social and environmental value to align their economic objectives with other types of goals that are linked to a greater awareness of sustainability and ethical investment (Richardson, 2009). These organizations have used different strategies to accomplish these social or environmental achievements. Some organizations have followed social responsibility strategies (Sparkes & Cowton, 2004), some have opted for shared value strategies (Kudratova, Huang, Kudratov, & Qudratov, 2020), and some have become social enterprises (Defourny & Nyssens, 2010) or hybrid firms (Battilana & Dorado, 2010) combining social and/or environmental objectives with economic objectives.

Additionally, there is a demand from investors and fund managers to finance projects with certain social responsibility criteria or even with social and/or environmental returns (Epstein & Buhovac, 2014). According to Nicholls and Emerson (2015), *social finance* (SF) refers to the allocation of capital to obtain social and environmental returns and, in some cases, financial returns. *Socially responsible investments* (SRIs), impact investing, and similar concepts are included under this SF umbrella (Phillips & Johnson, 2019). Along the spectrum of social finance, we can differentiate among four types of investments that range from those that have a more socially oriented value proposition to those that have an economic value proposition (Kristensen & Remmen, 2019). On one end, we find non-refundable investments that have a high social impact, such as philanthropic ventures. We find that impact investing has similar objectives in terms of impact but generates economic returns. On the other end, among the investments with higher economic value propositions, we find socially responsible investments and traditional investments, which are fundamentally interested in economic returns (see Figure 1).

<Insert Figure 1 about here>

During recent years, the term *impact investing* has gained momentum. Although the mobilization of capital to address social problems is not a new idea, as development finance institutions (DFIs) have been doing it for decades (Oleksiak, Nicholls, & Emerson, 2015), what is, in fact, relatively new is the term and the criteria in which this industry is being formed. The impact investing concept was coined in 2007 in so-called "Bellagio meetings," which were organized in Italy at the headquarters of the Rockefeller Foundation with a group of organizations from the worlds of investment and philanthropy. After these meetings, the GIIN was incorporated. According to this organization, the capital pool of impact investments increases annually by 20% (GIIN, 2016) and impact investing is expected to exceed USD 500 billion by 2023 (Agrawal & Hockerts, 2019).

In 2014, impact investing received another boost from the Social Impact Investment Taskforce (SIITF), which was established within the framework of the G8 Social Impact Investment Forum in 2013, and this group defined *impact investments* as "those that intentionally target specific social objectives along with a financial return and measure the achievement of both" (SIITF, 2014: 1). Other researchers have come to refer to impact investing as "investing with

purpose" (Urban & George, 2018), differentiating it from traditional philanthropy in the search for a double objective: economic profitability and social and/or environmental gains.

Impact investments are defined as investments "made with the intention to generate positive, measurable social and environmental impact alongside a financial return" (Chen & Harrison, 2020: 1). However, impact investments can be made in the same ways as traditional investments: through investments in debt (without participation in the related property; through loans) or equity (as owner of a part of a company). In a similar way, other authors have defined the concept as "an investment process for maximizing social and commercial benefits by using venture capitalist methods" (Agrawal & Hockerts, 2019: 1). This new investment strategy has attracted more interest during recent years than traditional philanthropy or other solutions proposed by nonprofit organizations. Indeed, the promise of profits tends to attract the interest of more investors, both private and managerial, who interpret the phenomenon as a way to achieve social and environmental objectives without renouncing economic profits (Lehner, Harrer & Quast, 2019)<no corresponding reference entry; please provide one or will have to delete this citation; might be the Lehner, Harrer, & Quast (2019) reference>.

Scholars, for the most part, consider that the impact investing industry is not an isolated initiative; on the contrary, it is an initiative intertwined with other ecosystems (Roundy, 2019). In 2016, a study from the University of Oxford and McArthur Foundation (Nicholls & Daggers, 2016) analyzed trends and research opportunities related to impact investing. A key conclusion was the need to clarify the concept, as different terms were being used to refer to very similar financial initiatives, such as *social investment* and *social impact investing* (Nicholls & Daggers, 2016).

In terms of the differences between SRI and impact investing, *socially responsible investors* use a "negative screen" (Brest & Born, 2013), that is, they avoid investing in projects that have negative impacts following the principle of "do no harm" (Louche, Arenas, & van Cranenburgh, 2012) to minimize the negative impact of their business decisions. This may be true for investments made in weapons, gambling, drugs, and polluting industries. In addition, SRI takes environmental, social, and/or governance criteria as a benchmark (Thilanka & Ranjith, 2018), which are also referred to as ESG criteria, and investors take these three categories into account during their research and evaluations of projects (Te Chen & Nainggolan, 2018).

Unlike SRI, impact investors use a "positive screen," that is, they look for business opportunities in projects that have positive impacts on society or the environment. Regarding return expectations, scholars do not agree. Some argue that while SRIs seek to maximize profit, impact investments have a variety of objectives rather than just seeking to maximize economic returns (Roundy, 2019). Another difference lies in the assets under the management of each industry and its geographic allocation. In the case of SRI, investors are institutional investors and asset managers of large investment funds with positions in large firms, including a wide spectrum of listed companies (Roundy, 2019) located in developed countries where risk is perceived as being lower than it is in less developed countries. Even if they also invest in developed countries, impact investors usually target small companies and have a broad appetite for investments in developing environments, such as Africa or Asia, and in projects within sectors with high expectations regarding social impact, such as the microfinance sector (a sector providing small loans to people in developing countries) (Sun & Liang, 2021).

Decision Making in Impact Investing

Decision makers in the impact investing industry must take into account social objectives (including environmental objectives in the social category) and economic objectives (Johnson & Lee, 2013). Unlike economic return measurements, which use profitability and risk metrics, social impact measurements do not have consensual metrics in the industry despite the many initiatives involving standards and indicators (Vanclay, 2003). For this reason, decision makers face difficulty in selecting funds with a potential for social impact that are in accordance with their impact expectations (Trelstad, 2016). Therefore, the issue of measuring this variable is so important in the impact investing industry that decision makers have to look for projects that address economic and social impact issues.

Scholars have defined some methodologies and standards for measuring social impact (Agrawal & Hockerts, 2019), but there is no universal standard that is used by the entire industry. Currently, the most frequently applied standards are still insufficient because most of them utilize a quantitative approach and do not measure long-term changes (Ebrahim & Rangan, 2014). For example, some investors use SROI (Antadze & Westley, 2012; Costa & Pesci, 2016), while others use specific indicators such as those developed by the GIIN, which are known as the Impact Reporting and Investment Standards (IRIS). Some investors even use specific methodologies for managing changes such as that of the Impact Management Project or IMP (Salathé-Beaulieu, Bouchard, & Mendell, 2019), or the Theory of Change, which is used to understand the causal processes between utilized resources and final outcomes and impact (Allen, Cruz, & Warburton, 2017). In addition, some experts recommend the use of standards but adapt their measurement indicators to the differences and singularities that occur depending on the region, culture, development level, or type of social organization being addressed (Pareja-Cano, Valor, & Benito, 2020).

Scholarship has focused on studying impact investors from the perspective of their intentions, expectations, and motivations. According to Roundy (2019: 2), "Impact investors make financial investments in early-stage organizations with the expectation of receiving financial returns and creating measurable social impact." In other words, these investors have a double objective: to generate economic benefits and make a social impact (Roundy, Holzhauer, & Dai, 2017).

Despite the growing number of impact investing studies, few works have analyzed decision making in this industry. According to McLachlan and Gardner (2004), the difference between these investors and conventional investors lies in the greater interest in ethical issues of the former, which is also reflected in their decision making style. Moral decision making theory can explain many of their behaviors as shown in the study of Hofmann, Hoelzl, and Kirchler (2008).

Following this issue, scholars have developed decision making models for SRIs. For example, Bilbao-Terol, Arenas-Parra, Cañal-Fernández, & Bilbao-Terol (2016) developed a multicriteria model for decision making with ESG criteria based on behavioral portfolio theory. This theoretical proposition is interesting because it supports a behavior not based solely on profit maximization (Shefrin & Statman, 2000). Multicriteria decision making (MCDM) has been used in different studies for the selection of socially responsible portfolios (Gupta, Mehlawat, & Saxena, 2013) because it is helpful in circumstances where several decision criteria must be considered simultaneously and may be in conflict.)<no corresponding reference entry; please provide one or will have to delete this citation; might be the Bilbao-Terol et al. (2016) reference>. These methods improve the quality of decisions, as they become more explicit, rational, and efficient. In addition, the results of such decisions can be better quantified and more easily communicated (Pohekar & Ramachandran, 2004).

In a study by Johnson and Lee (2013), a decision model was developed for impact investors. These authors highlighted the role of investment policies, which include a series of characteristics that projects must have and what objectives they must pursue. They even defined the levels of expected social return for which they might be willing to sacrifice some economic return (Johnson & Lee, 2013).

Scholars have shown that the generation of social value and that of economic value are competing activities and that economic value tends to take precedence over social value. This means that if the impacts of these activities are not managed well, then there is a risk of a loss of legitimacy (Agrawal & Hockerts, 2019). Therefore, the tension between social and financial returns seems to be inherent to impact investing. Consequently, this tension needs to be properly managed.

According to Agrawal and Hockerts (2019), there is a difference between commercial logic and social logic because the missions, values, and sources of legitimacy of each are different. This tension makes decision making difficult, which can be resolved through the alignment of interests motivated by the expectations of the impact investing market and the search for social legitimacy. Great leaders in impact investing have been promoting this sector, and organizations such as Yunus Social Business or the abovementioned GIIN have remarked on the importance of collaboration between organizations with traditions in philanthropy and those in the world of finance (Yunus, Moingeon, & Lehmann-Ortega, 2010).

Some authors have noted certain risks of impact investing that can reduce economic returns (Agrawal & Hockerts, 2019) and even introduce legitimacy risks if investors communicate their intention to make an impact but, in the background, maintain just the standards and expectations of traditional economic returns (Roundy et al., 2017). This lack of intentionality, or inconsistent proposal, can generate an "impact washing" effect for the same reasons that the "greenwashing" effect sometimes occurs (Findlay & Moran, 2019).

METHODOLOGY

To try to shed light on the examined theoretical problem and, above all, with the aim of offering a practical solution for practitioners who seek to discretionally analyze the appropriateness of different options from the perspective of an impact investing fund, we carried out the work described below.

We followed a qualitative methodology structured in three successive steps. First, we carried out an in-depth review of the related literature to identify the aspects that are recognized as key criteria and should be present in impact investing. From this research, we identified the categories and subcategories that should be used to analyze the suitability of any impact investment. Second, we employed an expert panel, who examined the results obtained from the first step, complementing, and refining the ideas derived from our theoretical analysis when necessary. These experts were selected based on their experience in areas related to impact investing and their level of experience (see Table 1). An important outcome of this step was the assignment of weights to each of the relevant aspects of impact investing, which advanced the configuration of a useful tool for making investment decisions with the specific characteristics of impact investing (see Figure 2). This ponderation was supervised and examined by the experts, who ensured the accuracy of the different weights. This ponderation was necessary because each subcategory had a different level of relevance for investor evaluations according to different authors and experts. Finally, to enable the application of these criteria to a portfolio of impact

investing and to provide managers and decision makers with the best options, we proposed, as a by-product and a key contribution of our study, the use of TOPSIS, a multicriteria methodology that allows practitioners in the impact investing industry to compare investment options. With the results obtained using our measurement/comparison tool, investors will be able to guide their professional practice by choosing the most suitable option among the possible alternatives of these types of financial products.

<Insert Table 1 about here>

<Insert Figure 2 about here>

The literature review undertaken in the first step made it possible to identify and understand the set of criteria needed to define impact investing. The results were grouped into categories and subcategories in order of importance. Three main characteristics of impact investing were identified in that it needs to be intentional, beneficial, and measurable. Each of these requirements was also composed of different subcategories.

However, as some authors have indicated, not all factors or subcategories are equally important in regard to understanding impact (Ormiston, Charlton, Donald, & Seymour, 2015). For this reason, we assigned a concrete weight to each of these elements. The weighting assessment, as we anticipated, integrated different views. One view was from the literature, which implies that the results of the main academic studies evaluating the importance of each of the subcategories had been reviewed. In addition, we considered the expert voices of the finance practitioners we interviewed in the next step of this methodological process. They were impact investing fund analysts with extensive experience in impact evaluation who had assessed the reliability and adequacy of the subcategories and their weights.

In the next step, it was necessary to apply a multicriteria decision method that is helpful for decision making. Historically, rational decision making has been a broadly used method for making investment decisions and it is based on Markowitz's portfolio theory. However, in regard to making complex decisions involving criteria of a different entity and nature, researchers have used other models that are more adapted to this type of decision, one of which is the multicriteria decision analysis or MCDA (Velasquez & Hester, 2013).

This model constitutes a decision support system that is mainly helpful when dealing with inaccurate information. According to Wang, Jing, Zhang, and Zhao (2009: 2265), MCDA is "suitable for addressing complex problems featuring high uncertainty, conflicting objectives, different forms of data and information, multi-interests and perspectives, and the accounting for complex and evolving biophysical and socio-economic systems." Although MCDA encompasses several models, which we explain below (such as the analytical hierarchy process, fuzzy logic, and TOPSIS), we use the TOPSIS method as it is the most suitable for our research objectives.

The analytical hierarchy process (AHP) selects different alternatives based on a series of hierarchical criteria and subcriteria, giving rise to a hierarchical structure that facilitates the evaluation of alternatives (Thanki, Govindan, & Thakkar, 2016). However, when the AHP is employed, the probability of inconsistency increases when dealing with a large number of alternatives (Dyson, 2017). Fuzzy logic models are mathematical means to represent vagueness and imprecise information, and they are generally used where no simpler alternatives are effective (Escrig-Olmedo, Muñoz-Torres, Fernández-Izquierdo, & Rivera-Lirio, 2017). However, our study does not present vague data to be analyzed. Instead, the TOPSIS method is the most adequate for

our study because it is based on the distance principle, which facilitates the quantification of distances between alternatives (Shih, Shyur, & Lee, 2007). Its results are based on linear programming and the difficulty of its operation does not depend on the number of comparable alternatives analyzed.

As we indicated at the beginning of this paper, the TOPSIS method constitutes a multicriteria decision making method. First introduced by Hwang and Yoon (1981), this method is based on distance measurement to an ideal and an anti-ideal solution. An alternative under evaluation ranks higher if it is closer to the ideal solution and farther away from the anti-ideal solution. The advantages of using the TOPSIS method include that it is intuitive, easily accepted by policy makers, and an efficient and suitable evaluation method (Deng, Yeh, & Willis, 2000).

Algebraically, for a group of alternatives (A_i | i = 1,2,… m) of m different alternatives evaluated under a set (C = {c_j | i = 1,2,… n}) of n different criteria, with associate relative weights (W = { w_j | j = 1,2,… n, $\sum_{j=1}^{n} w_j = 1$}), an alternative matrix with elements (a_{ij} for i = 1,2,… m and j = 1,2,… n) can be created (see Table 2).

<Insert Table 2 about here>

With this matrix as a starting point, the steps of the TOPSIS model can be summarized as follows:

- *Step 1: Normalization of the alternative matrix (A) into matrix X*

  Alternative matrix A is normalized and transformed into matrix X of elements x_{ij}; this is a transformation into nondimensional criteria, which facilitates comparisons among different criteria. The TOPSIS methodology allows for different normalization methods. In this case, Euclidean or vector normalization is used:

  $$x_{ij} = \frac{a_{ij}}{\sqrt{\sum_{i=1}^{m}(a_{ij})^2}}, \text{ for i = 1, 2,… m and j = 1,2,… n} \quad (1)$$

- *Step 2: Formation of a weighted normalized decision matrix V =*$(v_{ij})_{m\,x\,n}$

  Weight vector W is multiplied by the standardization matrix X to account for the relative importance of each criterion. A weighted standardization matrix is obtained:

  $$v_{ij} = w_j x_{ij} \quad (2)$$

- *Step 3: Determination of the ideal (A^+) and anti-ideal (A^-) solutions*

  Hypothetical positive and negative ideal solutions are defined. In this case, all the criteria included are positive (more is better), and consequently, the solutions are as follows:

  $$A^+ = \{v_1^+, ..., v_n^+\}, \text{ where } \quad v_j^+ = \{(\max_i v_{ij})\} \quad (3)$$
  $$A^- = \{v_1^-, ..., v_n^-\}, \text{ where } \quad v_j^- = \{(\min_i v_{ij})\} \quad (4)$$

- *Step 4: Calculation of separation measures through Euclidian distance*

The Euclidean distances between each normalized weighted alternative V_i and A^+ and between V_i and A^- are defined as S_i^+ and S_i^- and are calculated, respectively, as follows:

$$S_i^+ = \sqrt{\sum_{j=1}^{n}(v_j^+ - v_{ij})^2} \text{ for i = 1,2,3….m} \quad (5)$$

$$S_i^- = \sqrt{\sum_{j=1}^{n}(v_j^- - v_{ij})^2} \text{ for i = 1,2,3….m} \quad (6)$$

- *Step 5: Calculation of the closeness coefficient*

While S_i^+ determines how close an alternative A_i is to the ideal solution, S_i^- determines how far this alternative A_i is from the anti-ideal solution. The closeness coefficient for each alternative takes into account these two distances and is constructed as follows:

$$C_i = \frac{S_i^-}{S_i^+ + S_i^-} \quad (7)$$

- *Step 6: Preference order ranking*

The alternatives A_i are ranked in terms of the descending order of C_i.

RESULTS

The first level of results displays the criteria that the decision making system will use. The practical purpose of this decision making system is to select impact investing funds in accordance with their impact potential. The criteria are divided into three main categories and 15 subcategories. The three main categories of the model are coincident with the three characteristics that the literature identifies as essential to consider: the intentionality, benefit, and measurability of impact investing.

Intentionality, which Findlay and Moran (2019: 4) defined as "explicit intention for positive impact creation from both the investor and investee," arises to prevent the risk of "greenwashing." Delmas and Burbano (2011) identified a strong commitment to the search for social impact and the demonstration of integrity (Findlay & Moran, 2019). Even when intentionality is clearly stated among the criteria for viewing impact investing as a concrete option, the fact is that on the one hand, intentionality has received less attention in the literature than other concepts, such as impact measurement; on the other hand, it is necessary to assume that intentionality is intangible and much more difficult to measure with objectivity (Findlay & Moran, 2019).

In addition, impact investments must be beneficial: they must generate a positive social and/or environmental impact in addition to economic returns. Scholars have identified two types of returns: below the market (concessionary) returns, also called "impact first" returns, which are investments that renounce part of their financial return to have a greater social return or impact, and "finance first" returns, which are investments that prioritize financial returns and that provide returns similar to those of traditional investments (Findlay & Moran, 2019). Although some studies are skeptical (Brest & Born, 2013) of the possibility of achieving a dual return—social and economic—other studies have shown that such a return is possible. In the study conducted by Gray, Ashburn, Douglas, Jeffers, Musto, and Geczy (2015), it was stated that currently, the impact

investing industry needs to gain the confidence of investors with good economic performance and that most of the funds they analyze have returns similar to traditional market returns.

The third characteristic highlighted by the authors is the measurement of social impact (Brest & Born, 2013; Urban & George, 2018). While financial returns have a long tradition in terms of measurement, using quantitative metrics based on the profitability-risk binomial, the same does not apply to the measurement of social impact (Urban & George, 2018). Institutions such as the GIIN have made enormous efforts to propose metrics for measuring social impact. The Impact Management Project proposes not only measurement approaches but also a standard to manage impact. However, there are great challenges associated with measuring impact, such as the alignment of economic and social interests or quantitative measurement with the inclusion of life stories Lehner, Harrer, & Quast, 2019))<no corresponding reference entry; please provide one or will have to delete this citation; might be the Lehner et al. (2019) reference>.

Some authors have related social impact measurement to the way the creation of "social value" is understood (Viviani & Maurel, 2019). However, the quantitative measurement of social value is a great challenge that has aroused academic interest (Mulgan, 2010). Social value is defined as the "wider non-financial impacts of programmes, organizations and interventions, including the wellbeing of individuals and communities, social capital and the environment" (Viviani & Maurel, 2019: 8). To measure such social value, diverse methods have been proposed, such as SROI, social accounting, social impact assessment (SIA), and cost-benefit analysis (Boardman, Greenberg, Vining, & Weimer, 2017).

By considering the literature and communicating with impact investing practitioners, we identified a series of subcategories, which in turn explain each of the three main categories (see Tables 3 and 4). First, five criteria are identified to constitute intentionality. The first is investment "strategy," and according to the GIIN (2016) and Brown and Swersky (2012), this subcategory corresponds to the mission of the investee in question, as well as its investment policies. Second, as Johnson and Lee (2013) and Bolis, Sahan, West, Irani, and Nash (2017) showed, "internal validators" are important, referring to the impact experts, either individually or in the form of an impact committee, who are involved in a fund's decision making process. "External validators" add another layer of reliability to a fund's intentions. "Coherence" is another concept within this category and is related to the level of commitment to a social objective. In other words, coherence refers to the determination of whether what is said fits with what is actually done (Roundy et al., 2017). The "impact-return tradeoff" refers to the fact that economic and social returns must be balanced (Phillips & Johnson, 2019) because both are considered by impact investors.

<Insert Table 3 about here>

<Insert Table 4 about here>

The second category corresponds to the "beneficial" feature, which refers to the positive change generated by an investment (Brest & Born, 2013; Findlay & Moran, 2019) and is explained by another five subcategories. The first refers to the "impact theme" of an investment, given that there are some areas that require greater attention than others (Höchstädter & Scheck, 2015), such as the health sector, education, or gender equality. Another subcategory is the orientation to the final beneficiary or "target end customer." Given the different stages of an investment, it is important that the investment contributes to the final beneficiary, generating a relatively direct impact (Phillips & Johnson, 2019). "Effectiveness" is another concept that relates to the quality of

the effect obtained (Clark, Langsam, Martin, & Worsham, 2018; Glänzel & Scheuerle, 2016). The "level of innovation" of a solution is also important since innovative solutions tend to have a greater effect on problems, sometimes generating systemic changes (Phillips & Johnson, 2019). Finally, "nonfinancial contribution" refers to the benefit produced by an impact investor, which is measured not only through his or her economic contribution but also through the expertise or technical assistance shared (Mersland, Nyarko &, Sirisena, 2020).

Finally, the "measurable" category contains another five subcategories that correspond to the ability to understand, measure and demonstrate a generated impact (Findlay & Moran, 2019). The first subcategory identified is "impact measurement methodology." The basis of any impact measurement is a recognized standard or metric (Mudaliar, Schiff, & Bass, 2016; Phillips & Johnson, 2019). The second refers to the "evaluation process," through which the strengths and weaknesses of an impact are identified (Phillips & Johnson, 2019; Reeder, Colantonio, Loder, & Jones, 2015). An analysis of the "impact workforce structure" permits us to determine if the generation of an impact is a special in-company effort (La Torre & Calderini, 2018) that is unlike other methods such as outsourcing. "Research and publication" contribute to generating internal and external knowledge about impact measurement systems and methods as well as generating trust among stakeholders given the relevance and thoroughness of this type of study (Ormiston et al., 2015). Finally, in most cases, "presence in the field" is defined as a real commitment to understanding a complex reality and provides greater confidence in relation to the results obtained (Mula & Sarker, 2013).

Each investment alternative can be analyzed under each of the subcategories listed here. In this case, we used an example of an impact investment portfolio consisting of eight different impact investment fund investments to apply this analysis and method. Weights were assigned to each subcategory, which were validated by the experts, and the investments were analyzed under each subcategory. Then, the multicriteria decision system was executed, improving the ranking of the alternatives and moving them closer to an ideal solution and farther from an anti-ideal solution. As we have already stated, the TOPSIS method, therefore, allows for a comparison of alternatives and offers an assessment based on selected subcategories, which correspond to those that the literature, practitioners, and experts have defined as being the most relevant for impact investing. Table 5 shows an example of different alternatives, Table 6 presents the distances to the ideal and anti-ideal solutions for each alternative, and Table 7 presents the final ranking once the method has been executed.

<Insert Table 5 about here>

<Insert Table 6 about here>

<Insert Table 7 about here>

As we can see in Table 5, Fund IV is the preferable option as it has a shorter distance to the ideal solution and a longer distance to the anti-ideal solution. Fund VIII, on the other hand, is the least attractive option for this set of criteria and weightings, as it has the longest distance to the ideal solution and the shortest distance to the anti-ideal solution. Funds with coefficient values less than 0.5 are closer to the anti-ideal solution than to the ideal solution, and the TOPSIS method would not consider them within the recommendable range of alternatives.

DISCUSSION AND CONCLUSIONS

This study makes two types of fundamental contributions: theoretical and practical. As we explained in the introduction, our main theoretical contribution lies in the extension of the impact investing concept and the definition of its categories and subcategories. Scholars have highlighted the enormous gap that exists in the literature and the difficulty faced in differentiating impact investing from other types of similar phenomena such as sustainable investments or investments with ESG criteria. According to Nicholls (2010), impact investors need a conceptual framework that enables them to avoid misidentifying impact investing and to separate it from other types of investments that have certain social and/or environmental benefits. This theoretical contribution is also useful for enabling a better distinction between the impact investing concept and other types of investments with which it could be confused. Moreover, beyond addressing the definition issue, this study develops a valid criteria system for making investment decisions, thus contributing to one of the great problems faced by impact investors, namely, the difficulty faced in analyzing profitability, risk, and impact variables at the same time. As we have already declared, the model that we present here cannot be identified as a measurement tool but rather as an assessment tool. In fact, it can help align the interests of investors with the level of impact of potentially investible funds and projects. However, as we said, this study utilizes a methodological approach that is approximative, so we consider this study as the first of its kind but not the last, because it is necessary that others research this topic in order to consolidate our methodology and apply it to different circumstances using large data samples.

This study supports the results of Agrawal and Hockerts's (2019) research because, through the support of institutional logic, it emphasizes the need to contribute to connecting the interests of investors with the projects in which they invest. We think that this study contributes to this insofar as it facilitates a better selection of projects based on a series of criteria related to social impact and offers a framework of transparency for other types of stakeholders.

As Lehner et al. (2019) show in their study, impact investors must maintain a certain level of coherence between what they communicate regarding their scope in terms of impact and the reality of the social performance that they are capable of achieving. This study contributes to expanding Lehner, Harrer, & Quast (2019) <incomplete citation; lacks year; needs a corresponding reference entry> study with an admonition to avoid the risks derived from a lack of social legitimacy and the risk of "impact washing," which can occur in the same way that "greenwashing" occurs in multinationals whose communicated sustainability criteria do not correspond to what they are doing. A decision-making system based on a multicriteria decision system (TOPSIS) can be used to rank different options, prioritizing those that are closer to the criteria and standards set in the beneficial, measurable, and intentional categories and subcategories.

Furthermore, this study contributes to the debate about the balance between social and economic returns. Defining criteria and obtaining results based on 15 subcategories that cover all aspects of this impact allow us to balance the information used at an impact level with economic return information. Thus, investors will be able to make decisions more consciously and minimize the competitive logic between commercial and social aspects that exists due to ignorance.

This study has some obvious limitations, which are mainly related to the short lifetime, thus far, of the impact investing industry. On the one hand, this circumstance explains the current lack of empirical studies in the field. On the other hand, it serves as a motivation to continue to research this concept, not only through empirical studies but also through theoretical studies. Therefore, this limitation can become an opportunity. In fact, it may be possible and even

convenient to apply this concept in different sectors—covering various areas of impact such as health, education, microfinance, and the environment—as the decision system that we offer in this paper is an effective, new, and multicriteria *impact investment assessment tool*.

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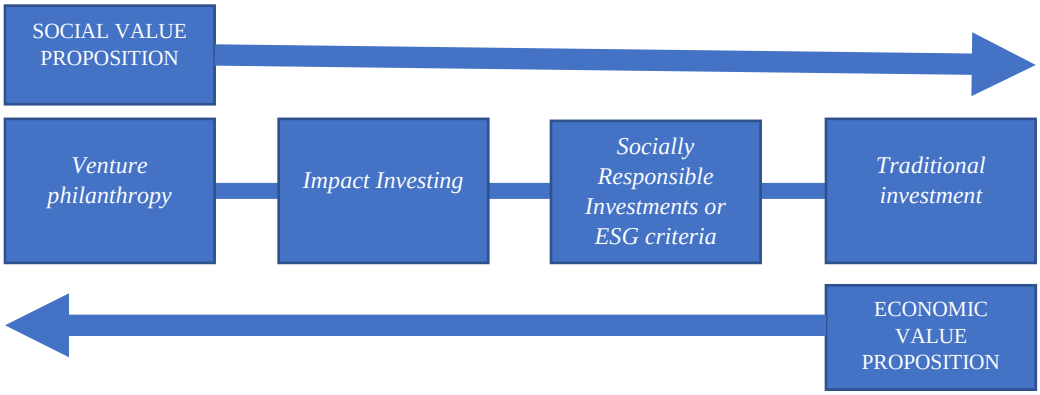

Figure 1: The Spectrum of Social Finance

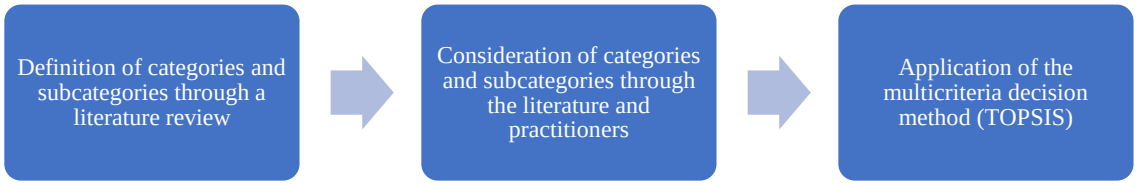

Figure 2: Steps for the Development of the Model and Decision Making Criteria

№	Years of experience	Area of expertise
Expert 1	10	Academia
Expert 2	20	Finance
Expert 3	15	Philanthropy
Expert 4	25	Foundation
Expert 5	10	Impact Investor
Expert 6	20	Sustainability
Expert 7	15	Finance

Table 1: Expert Panel

	Criteria			
Alternative	c_1	c_2	…	c_n
A_1	a_{11}	a_{12}	…	a_{1n}
A_2	a_{21}	a_{22}	⋮	a_{2n}
⋮	⋮	⋮	⋮	⋮
A_m	a_{m1}	a_{m2}	…	a_{mn}
Weight (W)	w_1	w_2	…	w_n

Table 2: Alternative Matrix A = $(a_{ij})_{m\,x\,n}$

Category	**Definition**	**Reference**
Intentional	"Requires explicit intention for positive impact creation from both the investor and investee"	Findlay and Moran, 2019, p. 4
	"(The investment) cannot be an incidental side effect of a commercial deal"	Höchstädter and Scheck, 2015, p. 454 <no year; might be 2015>
	"Investing in enterprises with the motivation of creating social and environmental value"	Agrawal and Hockerts, 2019, p. 1 <no year; might be 2019>
Beneficial	"To compromise on financial performance for social and environmental returns"	Lehner, Harrer and Quast, 2019, p. 418 <no corresponding reference entry; might be the Lehner et al. (2019) reference>
	"The investors are not making philanthropic gifts but anticipating a financial as well as a social return"	Phillips and Johnson, 2019, p. 2.

	"An impact investor seeks to produce beneficial social outcomes that would not occur but for his or her investment"	Brest and Born, 2013, p. 22.
Measurable	"Social impact measurement includes the processes of analysing, monitoring and managing the intended and unintended social consequences"	Vanclay, 2003, p. 6 <no corresponding reference entry>
	"Demonstration of results in addressing complex social problems"	Ebrahim and Rangan, 2014, p. 473. <corresponding reference entry; year might be 2014; no page number>
	"Social change is the process mediating between the actions of social entrepreneurs and the effects of these actions on beneficiaries"	Pareja-Cano, Valor and Benito, 2020, p. 1. . <no corresponding reference entry>

Table 3: Definition of the Categories from the Literature Review

Category	**Subcategory**	**Reference**
Intentional	Strategy	GIIN, 2016; Brown and Swersky, 2012
	Internal validators	Bolis et al., 2017; Johnson and Lee, 2013
	External validators	Bouri et al, 2018 <no corresponding reference entry>
	Coherence	Roundy, Holzhauer, and Dai, 2017
	Impact-return tradeoff	Phillips and Johnson, 2019
Beneficial	Impact theme	Höchständter and Scheck, 2015
	Target end client	Phillips and Johnson, 2019
	Effectiveness	Glänzel and Scheuerle, 2016; Clark et al., 2018
	Level of innovation	Phillips and Johnson, 2019

	Nonfinancial contribution	Mersland, Buddhika and Anokye, 2019 <no corresponding reference entry>
Measurable	Impact measurement methodology	Phillips and Johnson, 2019; Mudaliar et al. 2016
	Evaluation process	Phillips and Johnson, 2019; Reeder et al., 2015.
	Impact workforce structure	La Torre and Calderini, 2018
	Impact research and publication	Orminston et al., 2015
	On-the-ground presence	Mula and Sarker, 2013.

Table 4: Justification of the Subcategories from the Literature

	Beneficial					Intentional					Measurable				
	Impact theme	Target end client	Effectiveness	Level of innovation	Non-financial contribution	Strategy	Internal validators	External validators	Coherence	Impact-return trade-off	Impact measurement methodology	Process evaluation	Impact workforce	Impact research and publication	On the ground presence
Fund I	0.90	0.62	0.92	–	0.43	1.00	0.75	0.71	1.00	–	0.70	0.89	0.48	0.29	0.54
Fund II	0.63	0.62	0.63	–	–	0.84	0.50	0.63	0.60	–	0.46	0.82	0.48	1.00	0.34
Fund III	0.58	0.38	0.85	0.50	–	0.85	0.94	0.67	0.90	0.50	0.43	0.69	0.30	0.29	0.75
Fund IV	1.00	0.96	1.00	1.00	1.00	1.00	1.00	0.63	1.00	1.00	0.90	1.00	0.70	1.00	0.99
Fund V	0.90	0.58	0.98	1.00	1.00	1.00	1.00	0.67	0.90	–	0.85	0.95	0.30	–	0.82
Fund VI	0.90	0.50	0.94	0.50	1.00	1.00	0.38	0.79	0.90	0.25	0.85	0.93	0.40	0.71	0.89
Fund VII	0.90	0.69	0.81	–	1.00	1.00	0.81	0.71	0.90	0.75	0.61	0.93	0.40	1.00	0.75
Fund VIII	0.85	0.40	0.83	1.00	0.43	0.92	0.28	0.50	0.60	–	0.51	0.72	–	0.29	1.00
Weight (W%)	13.3%	6.7%	10.0%	1.7%	1.7%	11.7%	5.0%	3.3%	11.7%	1.7%	10.0%	10.0%	5.0%	5.0%	3.3%

Table 5: Alternatives and Weights

Fund	Distance to ideal	Distance to anti-ideal
Fund I	0,03295403	0,04266416
Fund II	0,0491283	0,03487007
Fund III	0,05134477	0,02892828
Fund IV	0,00282511	0,06784028

Fund V	0,03710046	0,04528105
Fund VI	0,03015232	0,04599071
Fund VII	0,02699931	0,04731479
Fund VIII	0,05603824	0,02382982

Table 6: Distances to Ideal and Anti-Ideal Solutions

Rank	**Coefficient value**
Fund IV	0.96
Fund VII	0.64
Fund VI	0.60
Fund I	0.56
Fund V	0.55
Fund II	0.42
Fund III	0.36
Fund VIII	0.30

Table 7: Ranking of Alternatives