


# Measuring Value Creation in Social Enterprises: A Cluster Analysis of Social Impact Assessment Models

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## Abstract

The relationship between business and community is becoming increasingly important, especially with the current blurring of the boundaries between profit and not-for-profit sectors, and the growing number of hybrid organizations such as social enterprises. For these organizations, the assessment of social impact plays a strategic role in helping them understand to what extent their social mission has been accomplished. As a result of increasing interest in the practice of Social Impact Assessment (SIA), many models have been developed, but a system to classify them is still lacking, and so the overall picture remains rather fragmentary if not confusing. In this research, a hierarchical cluster analysis was developed based on a sample of 76 SIA models to group them in macro-categories and help social entrepreneurs choose the model that is best suited to the needs of their organization.

## Keywords

social entrepreneurship, social impact, measurement models, value creation, cluster analysis

## Introduction

In recent years, the third sector has begun to acquire the know-how, tools, and models that have traditionally characterized the business world. This has led to the establishment of new enterprises defined as “integrated” or “hybrid” that blur the boundaries between the profit and not-for-profit models (Harris, 2012). They have become so

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numerous that they form a new emerging sector known as “the fourth sector” (Fourth Sector Network, 2009).

The phenomenon of social entrepreneurship (SE) falls within this sector as it uses economic activity to pursue a social objective. Although, in many respects, SE is similar to conventional entrepreneurship, it involves the provision of goods or services not as an end in itself, but as an integral part of an intervention aimed at contributing to social change (Mair, Battilana, & Cardenas, 2012).

The goal of fulfilling a social mission raises the question of how the impact these organizations have on society should be assessed, to understand if and how they are really achieving their objectives and contributing to the well-being of society. Furthermore, social enterprises have multiple stakeholders to account to, and several categories of interested parties who require greater accountability, and this makes the process of assessment even more important (Bagnoli & Megali, 2011; Ebrahim, 2010). In this context, the practice of Social Impact Assessment (SIA) may be seen as the process of providing evidence that an organization is providing a real and tangible benefit to the community or the environment.

Even though social entrepreneurs may be able to see with their own eyes the benefits created by the work their organization carries out, assessing this social impact in more detail can be useful in improving internal management and obtaining funds.

Due to the growing interest in this topic, a rich body of literature on SIA has emerged lately. However, as highlighted by the Organisation for Economic Co-operation and Development (OECD; 2010), assessing social impact is not easy especially because of the difficulties in identifying qualitative and quantitative metrics for reporting information to stakeholders. This complexity has resulted in the development of many different models aimed at providing guidelines and indicators for assessing social impact. This ongoing proliferation of models is due to the fact that organizations differ in size, capacity, activities, and focus, and consequently there is no single model that is suitable for all of them.

Although some attempts have been made, an overall classification of these models has not yet been developed, and that is why organizations have to face the challenge of choosing the model they consider the most appropriate for them.

Starting from this premise, in this article, we present an analysis of the main SIA models, which we divided into four major categories giving a description of their profiles. The models we examined have been developed to support the activities of those for-profit and not-for-profit organizations wishing to assess their impact, beyond simply making a profit. In our view, as the goal of achieving a social mission and the greater involvement of stakeholders are among the main features of social enterprises, SIA can play an important strategic role if they make use of it.

Clustering existing models according to precisely defined variables offers a clearer overview of the available ways of assessing social impact. The benefit of this approach is twofold: First, it helps social entrepreneurs to evaluate the complex array of existing models, to choose the most suitable one for them, thus improving the practice of social impact assessment, and second, a comparison between models shows their weakness and strengths better.

## A Literature Review of Social Impact Assessment

Assessing social impact is one of the most important challenges for scholars in the field of SE. The main problem is not the measurement itself, but the conversion of qualitative data related to the achievement of a social mission into quantitative metrics.

The existing studies in the field are based on the concept of *blended value proposition*, as coined by Emerson (2003). Organizations must move beyond the traditional belief that their economic value is separate from and in conflict with their social value. In fact, these components may be wrongly considered as two separate aspects of the corporation's value proposition, thus completely overlooking their dynamic interplay.

The organizations' goal should be to understand how the economic and social output can be integrated and measured together, so as to maximize social and financial value creation as well as shareholder return.

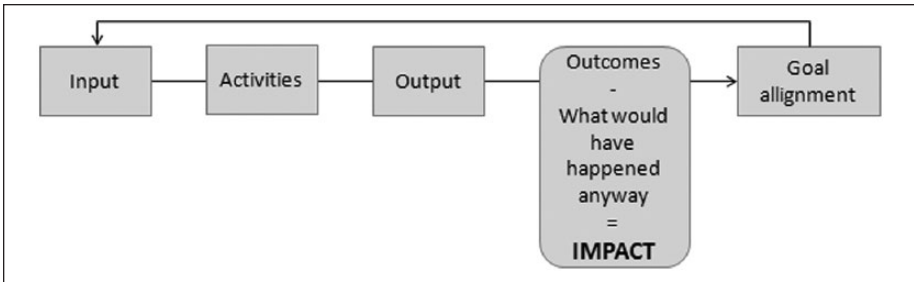
This is of crucial importance to social enterprises inasmuch as they are both market-oriented and social mission-centered. Several studies on SE emphasize the benefits of blending economic and social value creation (Austin, Gutierrez, Ogliastri, & Reficco, 2006; Boyd, Henning, Reyna, Wang, & Welch, 2009; Nicholls, 2009). In fact, combining them can broaden market participation, facilitate more equitable economic exchanges, and also promote local empowerment and well-being (Le Ber, Bansal, & Branzei, 2010).

Within the wider process of creating value, organizations need to be aware of the importance of the measurement process in unlocking new value and creating valuable opportunities for innovation and growth that would otherwise be missed (Porter, Hills, Pfitzer, Patscheke, & Hawkins, 2012).

A large number of studies show the interest in accountability in the not-for-profit sector (MacIndoe & Barman, 2013). A review of the literature reveals a rather imprecise definition of the concepts examined (Maas & Liket, 2011; Nicholls, 2007). Social impact is described as a combination of resources, inputs, processes, or policies that occur as a result of the real, implied, or imagined presence or actions of individuals in achieving their desired outcomes (Emerson, Wachowics, & Chun, 2000; Latané, 1981; Reisman & Giennap, 2004). As a result of externally induced change (Council for Social Development, 2010), social impact includes intended/unintended effects, the negative/positive effects, and both long- and short-term consequences (Wainwright, 2002).

An interesting contribution is that of Clark, Rosenzweig, Long, and Olsen (2004) who introduced the concept of impact value chain. His work is based on logic models that have been widely used to better understand the relationship between program inputs and outcomes, and also to reveal the mechanisms of change involved in moving from inputs to desired results (Ebrahim & Rangan, 2010).

In the impact value chain, social impact represents the portion of the total outcome achieved due to an organization's activities, above and beyond what would have happened anyway. This definition underlines how social value is created by distinguishing



**Figure 1.** Impact value chain.

Source. Adapted from Clark, Rosenzweig, Long, and Olsen (2004).

between outputs and outcomes. It also shifts the emphasis from the former to the latter so as to identify the organization's actual contribution to social change (see Figure 1).

Outputs are the results that organizations can measure or assess directly, whereas outcomes are wider changes that they attempt to elicit in the world (Clark et al., 2004). The literature review also identified a growing interest in outcome measurement to assess organizational effectiveness because outcomes have become the optimal signs of organizational performance, replacing other traditional indicators of success (Alexander, Brudney, & Yang, 2010; Liket & Maas, 2013; Mitchell, 2013).

The SIA concept was originally developed as a method for predicting social impact within the environmental impact assessment (EIA). Although EIA was intended as an all-inclusive framework for analysis of environmental and social issues, it failed to adequately address social issues, and, therefore, SIA was developed with a gradual extension of the items under consideration (Esteves et al., 2012; Richmond, Mook, & Quarter, 2003). The SIA process allows organizations to identify, measure, and gather evidence of the benefits they create for stakeholders in the environment and the local economy (Social Impact Analysts Association [SIAA], 2013).

The need to identify suitable indicators to measure social output is widely felt not only in the third sector, but in other sectors as well. In for-profit companies, for example, the growth of this trend is directly linked with the increasing importance given to corporate social responsibility and the consequent need for proper indices of measurement. The same requirement is also emerging in the public sector, where efforts are limited to the health sector and, to a lesser extent, to the care sector (Zappalà & Lyons, 2009).

The reasons for the growing interest in this field on the part of social entrepreneurs and not-for-profit organizations can be found in the limitations of financial accounting, which excludes non-monetized items and focuses on shareholders and lenders to the exclusion of employees, users, or consumers of the service, society, government, volunteers, and members. The new competitive environment these organizations face requires proper assessment of their impact to enable them to improve their performance and to communicate the benefits of their activities effectively. Financial accounts have great advantages in terms of scalability, collectability, level of objectivity, and comparability across organizations; thus, they do not completely reflect the

benefits created. Hence, inclusion of social benefits is key to providing a more complete view of overall performance (Liket & Maas, 2013; Richmond et al., 2003).

The attempt to move toward an analysis that differs from the traditional economic approach has to confront the deep-rooted belief in the extreme complexity of measuring and quantifying the creation of social value (Burdge, 2003; Emerson et al., 2000; Porter et al., 2012). Although there are generally accepted accounting principles that support financial reporting, similar standards related to the measurement and communication of social impact have not been produced yet, because it is difficult to arrive at a comprehensive definition of the concept of social impact, and the related measurement models often lack the rigor that characterizes accounting approaches aimed at assessing financial returns (Zappalà & Lyons, 2009).

However, despite the undeniable difficulties, assessing social impact offers many strategic opportunities for social entrepreneurs (Burdge, 2003; Le Ber et al., 2010; Nicholls, 2009). It can improve an organization's performance, because it allows a deep understanding of how to best allocate resources to maximize social outcomes. Also, it promotes improved accounting practices, thus enhancing the legitimacy of the organization in the eyes of its stakeholders (Dart, 2004).

Moreover, inasmuch as SIA provides information about the way in which funds are used in addressing social issues, it is extremely useful for funders. In the context of increasing competition for funds, the existence of standard procedures for assessing and reporting social outcomes is useful for those seeking to evaluate projects to invest in (Porter et al., 2012; Ruttman, 2012).

## **The Need for Classifying Models**

Many documents have been developed to establish the state-of-the-art and prescribe best practice in the SIA process. One of them, the Guidelines and Principles for Social Impact Assessment edited by the U.S. Interorganizational Committee on Guidelines and Principles for Social Impact Assessment (1994), is considered a milestone because it represents a consensus on the core procedures understood to constitute SIA at the time (Esteves, 2011). Although the steps in the SIA process are clearly understood (Nicholls, 2009; Porter et al., 2012; Rowan, 2009; Vanclay, 2003), there is less agreement on how to identify and, above all, measure impact.

For this reason, a number of models have been developed by various authors. There are several groups of academics who are interested in improving SIA practice. Among other interested parties are SIA practitioners, regulatory agencies, policy and program developers, financiers, and, above all, the not-for-profit organizations themselves and their end users. Measurement models originate not only from the academic literature, but also from intergovernmental organizational standards (such as the United Nations [UN] Global Compact, many International Labour Organization [ILO] conventions and declarations, OECD guidelines, UN Principles for Responsible Investment), multilateral financial institution standards, multi-stakeholder initiative standards, industry associations, and individual company codes of practice (Vanclay, 2003).

The increasing number of models has occurred for a variety of reasons. First, because, as mentioned earlier, from the perspective of social entrepreneurs, the concept of social impact can be measured in a variety of ways (intended/unintended, positive/negative, short/long term), and each organization is interested in the assessment of some of these areas in particular. As a result, the existing models are tailored to the requirements of different types of organizations, which vary in their size, activities, and objectives. Second, social enterprises have many different stakeholders to account to, and each of them may be interested in a different kind of impact.

For these reasons, there is no single model that suits all organizations wanting to assess their impact.

This variety makes the categorization of models extremely important, because its absence could be an obstacle for social entrepreneurs wanting to start the SIA process. The large number of existing options is confusing for managers who want to select a model, because it is difficult for them to assess the various models in use and decide which one may be the most suitable for them. Moreover, it can hamper the work of researchers involved in the development of new models, and academics attempting to analyze the progress in SIA (Maas & Liket, 2011).

Literature review and Internet search result in the identification of some attempts at classification. The main purpose of the present study is to define a set of criteria that may help organizations understand the main features of the models included in this study. Such shared knowledge may help improve the reliability and transparency of accounting practices, and even enable performance comparisons between different organizations within the same sectors or areas. Table 1 summarizes the classification systems that have emerged.

Some of these systems contain a less articulated structure, such as the one by Nicholls (2005) who classifies the models according to the type of data required for the assessment (qualitative or quantitative), or the one in Zappalà and Lyons (2009) who focus on the model features to distinguish between framework and methods. Frameworks provide guidelines for organizations to consider to design, plan, implement, and embed performance measurements into a project, program, or organization as a whole, but they do not prescribe a specific method or indicators that can be used in assessing social impact. In contrast, methods are aimed at providing organizations with proper indicators based on financial criteria.

Conversely, other authors have proposed a more complex set of criteria with several variables, as it is the case with Maas and Liket (2011) who selected six variables and 17 sub-variables for analysis. This work is certainly a good example of how to develop a classification of models, but it focuses on performance evaluation.

Interesting contributions can be found on the Internet, such as the Tools and Resources for Assessing Social Impact (TRASI<sup>1</sup>) project and the New Economics Foundation (NEF<sup>2</sup>). The former was launched in 2010 by the Foundation Center (an association of more than 500 foundations worldwide) to create a database of SIA models that currently includes more than 150 examples. Furthermore, the Foundation Center manages a network of not-for-profit organizations, financiers, and social enterprises with the aim of encouraging members of the network to share experiences.

**Table 1.** Classification Variables in Literature.

Author	Year	Variables (sub-variables)
Clark, Rosenzweig, Long, and Olsen	2004	Functional category (process, impact, monetization) Impact value chain (input, activity, output, outcome, goal alignment) Life-cycle stage (start up, expansion, maturity) Purpose (screening, partnership formation, management operation, scaling, external reporting, exit, retrospective evaluation) Cost/time Time breakdown (management, staff, third-party consultant, investor)
Nicholls	2005	Qualitative/quantitative
Zappalà and Lyons	2009	Methods/framework
Rinaldo	2010	Motivation (assessing effectiveness and/or efficiency, implementing change, quality mark, funder requirement) Readiness (defined/undefined social purpose) Capacity (small, medium, large) Impact typology (environmental, economic, holistic, on volunteers)
Maas and Liket	2011	Purpose (screening, monitor, reporting, evaluation) Time frame (prospective, ongoing, retrospective) Orientation (input, output) Length of time frame (short term, long term) Perspective (micro, meso, macro) Approach (process methods, impact methods, monetization)
NEF		Organizational size (large, medium, small) Category of measure (strategy, quality, impact) Impact typology (environmental, economic, holistic, people)
TRASI		Purpose (assessment, management, certification) Organization typology (not-for-profit, government, foundation, social enterprise, social investor) Sector (general, specific) Focus (organizational effectiveness, social impact) Stage of the Impact Value Chain (output, outcome, impact)

Note. NEF = New Economics Foundation; TRASI = Tools and Resources for Assessing Social Impact.

Similarly, the NEF is a not-for-profit organization that carries out research into social and environmental economies at the international level.

Although these contributions are significant and useful for classifying models, our study discovered that a cluster analysis could be more effective, because it can identify macro-categories of models that could be described with reference to a number of variables. This could be of more help to social entrepreneurs by enabling them to choose the most suitable model according to the particular needs of their organization.

For this reason, we selected a sample of 76 models and carried out a cluster analysis that led to the identification of four macro-categories whose main features are described in the next section.

## **Method**

The first stage of our research was the selection of models to be included in the sample. As one of the emerged obstacles in approaching this topic is an often imprecise definition of the terms, the word “models” will be used hereafter to indicate those instruments entrepreneurs can rely on in measuring their social impact. This concept includes both “frameworks” and “methods,” where the former are qualitative frames to read organizations’ social impact and the latter foresee quantitative indicators, often based on financial criteria (Zappalà & Lyons, 2009).

We chose models that had been used and positively reviewed so that we could find the information we needed.

To select the sample, the following steps were taken:

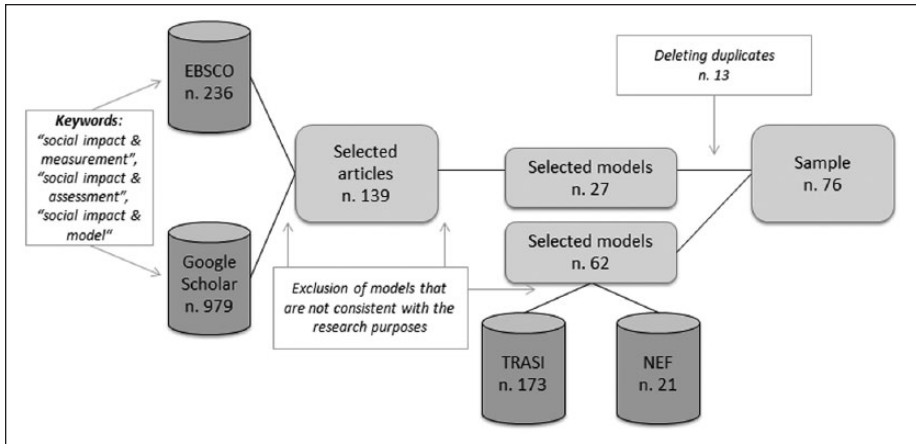
1. First, we searched two academic databases: EBSCO and Google Scholar. We searched for articles that contain in their titles or abstracts the keywords, “social impact AND measurement,” “social impact AND assessment,” and “social impact AND model.” Using this method, 1,215 articles were identified;
2. Relevant articles describing one or more models were selected after reading abstracts and full papers, resulting in the selection of 139 articles;
3. From these articles, 27 SIA models were selected;
4. We decided to supplement the academic results by collecting data from fact sheets on models available on the web. To this end, we searched two managerial databases: the Foundation Center (TRASI) and the NEF.
5. From these databases, 194 models were identified, and, from this sample, 62 were selected;
6. Finally, the results were merged, and duplicates were deleted (13; cf. Appendix A).

This process led to the identification of 76 social impact measurement models that represent the sample under investigation. Figure 2 shows the model collection, selection stages, and the corresponding quantitative output.

We excluded from our selection those models that were not consistent with the objectives of our research, that is, those focused only on the assessment of the organization’s internal efficiency, models that were not directly addressed to organizations (e.g., governmental activity impacts), or models for which there was too little information to be included in our study.

After selecting the sample, we identified a number of variables for classification models, making substantial use of the literature review. Variables were selected





**Figure 2.** The process of sample selection.

Note. NEF = New Economics Foundation; TRASI = Tools and Resources for Assessing Social Impact.

according to the following criteria: the frequency with which they were used in the research and the availability of the required information.

This process resulted in the definition of seven variables of analysis:

1. Data typology: quantitative, qualitative, quali-quantitative (Nicholls, 2005). The nature of data required for the assessment has a great influence on the model itself. In fact, qualitative data are usually more general and make the overall models easier to apply; conversely, quantitative models require more specific information and data that may require more time to gather.
2. Impact typology: holistic, people, environmental, social, economic (Rinaldo, 2010; NEF). As mentioned earlier, impact can refer to a variety of aspects. Holistic models tend to be general and assess the overall effect of the organizations' activities on surrounding areas. Other models are focused on specific kinds of impact that can affect those working in the organizations, the environment, society in general (e.g., promoting further education, reducing poverty, and social exclusion) or the economy (e.g., number of employees, increase in workforce).
3. Purpose: screening, assessment, management, certification, reporting (Clark et al., 2004; Maas & Liket, 2011; Rinaldo, 2010; TRASI). As organizations have different needs, they may have different reasons to implement SIA processes. Consequently, we identified five of them: screening (when the model is used to verify the achievement of specific goals), assessment (when it aims to measure accurately the impact generated), management (when the SIA process is carried out to assist managers in running their organization), certification (when the final aim is to obtain some external recognition for the organization), and reporting (when the objective is to account to stakeholders, and a specific accounting structure is needed).

4. Model complexity: basic, simple, complex, highly complex (Maas & Liket, 2011; Zappalà & Lyons, 2009). These variables were identified on the basis of number and typology of indicators or categories provided for the study.
5. Sector: general, specific (TRASI). Models can be cross-sector or can be developed specifically for organizations working in a specific field and this influences the indicators used and the information required.
6. Time frame: prospective, retrospective, ongoing (Clark et al., 2004; Maas & Liket, 2011). Some models can be used prospectively to help managers decide whether the project should proceed as it is, proceed with certain changes, or be abandoned altogether, with contingency plans being developed to deal with the potential negative impact on those individuals and communities affected. In this sense, “assessment” takes on an unusual meaning: It denotes a process that takes place before the impact has actually occurred, whereas the term usually refers to an *ex post facto* audit carried out to measure outcomes against intended objectives to determine whether they have been met. Also, SIA can be an ongoing, lifelong process that can be undertaken before, during, and after the deployment of the organizations’ projects.
7. Developer: research center/university, not-for-profit network, not-for-profit organization, consulting firm, institution. As mentioned earlier, many different actors are involved in the development of SIA models and their diversity may be reflected in the models they produce.

In the next stage, a hierarchical cluster analysis was carried out. Ward’s method was used to identify the clusters and the Euclidean distance to identify similarities between models. The data was processed with IBM Statistics SPSS 20 software.

## Findings

An analysis of the frequency of each variable was carried out to produce an overview of the main characteristics of the models examined (Table 2).

With respect to the impact typology, most models enable holistic (47.4%) and social (25%) measurements and only a few focus on the analysis of economic and environmental impact (both 5.3%). The most common objective is screening to verify the achievement of specific objectives (44.6%). With reference to the complexity of the models, most of the sample consists of basic (40.8%) and simple (27.6%) models with less than 40 indicators. Only 6.6% represent complex models with greater than 90 indicators. The analysis shows that the majority of models are generic (78.9%), rather than specific (21.1%), with an ongoing (40.8%) and retrospective (55.3%) time frame and they employ qualitative data (47.4%). A final observation concerns the typology of the organizations that develop and offer the models, which are mostly networks of not-for-profit organizations (31.6%) and the not-for-profit organizations themselves (30.2%).

**Table 2.** Frequency Analysis.

Variable	Frequency (%)
Impact typology	
Holistic	47.4
People	17.1
Social	25
Environmental	5.3
Economic	5.3
Purpose	
Screening	44.6
Assessment	13.2
Management	17.1
Certification	7.9
Reporting	17.1
Complexity	
Basic	40.8
Simple	27.6
Complex	25
Highly complex	6.6
Sector	
General	78.9
Specific	21.1
Time frame	
Prospective	3.9
Ongoing	40.8
Retrospective	55.3
Developer	
University/research center	19.7
Not-for-profit network	31.6
Not-for-profit organization	30.2
Consulting firm	13.2
Institution	5.3
Data typology	
Qualitative	47.4
Quantitative	17.1
Quali-quantitative	35.5

The results of the cluster analysis were visualized using a dendrogram, which lists all of the models with the hierarchy of solutions (Appendix B). A solution with four clusters was identified using the criteria of size and interpretability of the cluster (considering the significance of each variable).

Subsequently, contingency tables were developed by matching the variables used for classification with the identified clusters. Table 3 shows the Pearson chi-square

**Table 3.** Pearson's Chi-Square for Variable.

Pearson's chi-square	Value	df	p. value
Data typology	71.689	6	.000
Impact typology	31.106	12	.002
Purpose	141.223	12	.000
Complexity	33.141	9	.000
Sector	10.249	3	.017
Time frame	34.698	6	.000
Developer	28.501	12	.005

value for each crossing and the corresponding level of significance. All variables contribute to generate significant differences among clusters (level of significance  $\leq .05$ ).

A more detailed analysis of the characteristics of the clusters allows us to develop a descriptive profile for each group:

- Cluster 1 (14.5%; Simple Social Quantitative) contains models based on quantitative indicators. These models are intended to produce a quantitative measure of the social impact (e.g., number of beneficiaries of services provided) and of the impact on employees (e.g., employee satisfaction, organizational climate). The time frame of the analysis is retrospective. These models are easy to apply (consisting of no more than 15 indicators), are generic, or applicable in any sector. These models were proposed by a number of different promoters: research centers, universities, not-for-profit networks, not-for-profit organizations, consulting firms, and institutions. An example of this cluster is the *Cost per Impact* method developed by the Center for High Impact Philanthropy (University of Pennsylvania). This model aims to provide donors with a starting point from which they can evaluate opportunities and produces an estimate that can help make decisions based on empirical information about the cost required to achieve success. To provide a realistic estimate, this model combines the estimated costs with the empirical results from past implementations. The required information is quantitative, being based on calculations, and the time frame is retrospective because this model provides information on the ratio between the incurred costs and the achieved outcomes;
- Cluster 2 (26.3%; Holistic Complex) contains models characterized by both qualitative and quantitative variables. The typology of impact measured by these models is primarily holistic or based on the overall added value. The main purposes are screening to verify the achievement of specific objectives and reporting for reasons of stakeholder accountability. The focus on reporting and communication of results achieved make these models particularly suited for the purpose of obtaining funding. These models have a high degree of complexity (some contain more than 100 indicators) and are applicable to any sector. The time frame is ongoing or retrospective, and the models are

developed primarily by not-for-profit networks. One example is that of the GRI (Global Reporting Initiative) *Sustainability Reporting Framework*, which enables organizations to measure and report their economic, environmental, social, and governance performances, the four key areas of sustainability. Its main objective is the assessment of impact for the information of stakeholders. The GRI is a highly complex model, because it contains more than 100 indicators, both qualitative and quantitative, allowing an ongoing analysis of the impact achieved;

- Cluster 3 (40.8%; Qualitative Screening) is the largest cluster and is characterized by models that employ qualitative variables. The typology of measured impact is mainly holistic. The time frame is retrospective, and due to their qualitative nature, these models have a basic level of complexity. The models that belong to this cluster can also be applied to specific sectors and have been developed by a variety of organizations. One example is the *Charity Analysis Framework* produced by NEF, which provides selected qualitative indicators to help organizations identify whether they are tackling the most critical issues, making a significant difference to the life of the community, and whether they have the necessary ambition, leadership, and resources they need to function properly. This model is fairly simple and is primarily directed at organizations involved in the education and employment sectors;
- Cluster 4 (18.4%; Management) is characterized by models that use qualitative or quantitative variables and aim to measure different types of impact (e.g., holistic, employees, environmental, social, and economic). They are characterized mainly by their purpose as they are used for management or certification and are applied during the course of activities (ongoing time frame). These models are generic and are primarily employed by consulting firms and institutions. One example is the European Union Eco-Management and Audit Scheme (EMAS) model developed by the European Commission, which aims to help organizations evaluate and improve their environmental impact. Its purpose is to assess the current impact of an organization by conducting an environmental audit and to help it make the necessary changes by establishing an environmental management system. The ultimate goal of this model is to aid organizations in managing their activities so as to reduce their negative impact and to provide them with external certification of their commitment to this cause.

Table 4 shows how models are distributed within the different clusters, and the features that differentiate them from each other.

## Discussion and Conclusion

The literature review highlighted the increasingly important role of the so-called hybrid enterprises in the modern world. This phenomenon creates a need to assess

**Table 4.** The Social Impact Assessment Models Choosing Grid.

Cluster	Models' main features							
	Models (cf. Appendix A)	Data typology	Impact typology	Purpose	Model complexity	Sector	Time frame	Developer
Cluster 1: Simple Social Quantitative	1; 4; 6; 13; 24; 38; 41; 43; 54; 58; 64.	Quantitative	Society People	Measurement Assessment Reporting Certification Management	Simple	General	Retrospective	Research centers Nonprofit organizations Network Consulting firms Institutions
Cluster 2: Holistic Complex	2; 11; 15; 16; 17; 21; 22; 23; 26; 28; 29; 31; 36; 37; 49; 53; 55; 57; 66; 71.	Quali-quantitative	Holistic	Assessment Reporting	Complex	General	Ongoing Retrospective	Nonprofit network
Cluster 3: Qualitative Screening	3; 5; 7; 10; 14; 18; 20; 27; 30; 32; 33; 35; 39; 40; 42; 44; 46; 48; 50; 51; 52; 56; 60; 61; 62; 65; 67; 70; 73; 75; 76.	Qualitative	Holistic	Measurement Assessment Reporting Certification Management	Basic	Specific	Retrospective	Research centers Nonprofit organizations Network Consulting firms Institutions
Cluster 4: Management	8; 9; 12; 19; 25; 34; 45; 47; 59; 63; 68; 69; 72; 74.	Quali-quantitative	Holistic Society People Environment Economic	Management Certification	Basic Simple Highly complex	General	Ongoing	Consulting firms Institutions

accurately the difference that these organizations can make to society. Measuring their impact nowadays creates added value for firms, whether by improving performance or by involving stakeholders by showing them the actual achievements of their outcomes.

Even though many measuring models have been developed, a lack of classification of those models is noticeable and may represent a problem as the choice of models is wide and often confusing. This work is an attempt to fill this gap with the development of a classification system whose aim is twofold. First, grouping models in four macro-categories can make it easier for social entrepreneurs to choose a model. In this sense, the proposed choosing grid can be a useful landmark that can guide them in their choice of existing models. The identified clusters provide an overall frame of reference for understanding models and offer an overview that facilitates the identification and understanding of each model.

It should be acknowledged that the present study has some shortcomings. The selected sample examined a wide but not complete set of models. In fact, several selection criteria were applied to include in the sample only those models that were relevant to the objective of the analysis. Also, the analysis techniques employed (hierarchical cluster analysis) require a certain discretion on the part of the researcher and consequently introduce the potential for partiality in conducting the analysis. However, the four-cluster solution was chosen for the level of significance of each variable.

This work opens promising avenues for further research. The first is, of course, an analysis of the needs that social enterprises have when approaching the process of SIA. Clustering a sample of social enterprises according to their objectives in assessing impact could be extremely useful: First, to understand the extent to which existing models are really suited for social entrepreneurs' needs, and, second, such a study could complement the present work, highlighting which kinds of models are inadequate, and how the current state of affairs can be improved to fully meet the actual needs of social entrepreneurs.

## Appendix A

### *The Sample of Models*

No.	Model
1	Soft outcomes universal learning
2	AA1000
3	Atkisson compass assessment for investors
4	Best available charitable option

*(continued)*

## Appendix A (continued)

No.	Model
5	BoP (Base of the Pyramid) impact assessment framework
6	Co-operative performance indicators
7	Fit for purpose
8	Eco-mapping
9	EMAS
10	EFQM
11	GRI sustainability reporting framework
12	Investors in people
13	LM3
14	Logic model builder
15	Measuring impact framework
16	Millennium development goal scan
17	Practical quality assurance system for small organizations
18	Prove it!
19	Quality first
20	Social Impact Measurement for Local Economies (SIMPLE)
21	SOCIAL
22	Social investment risk assessment
23	Social accounting and audit
24	Social return on investment
25	The big picture
26	Third sector performance dashboard
27	Volunteering impact assessment toolkit
28	Impact reporting and investment standard
29	Global Impact Investing Rating System (GIIRS)
30	The values based checklist for social firms
31	Social enterprise balanced scorecard
32	Assessment and improvement indicators
33	Charity analysis framework
34	Cradle to cradle certification
35	Echoing green midyear and year-end report
36	HIP scorecard
37	Methodology for impact analysis and assessment
38	MicroRate
39	Movement above the US\$1 a day threshold
40	Progress out of poverty index
41	Pulse–Portfolio data management system
42	SCALERS

(continued)



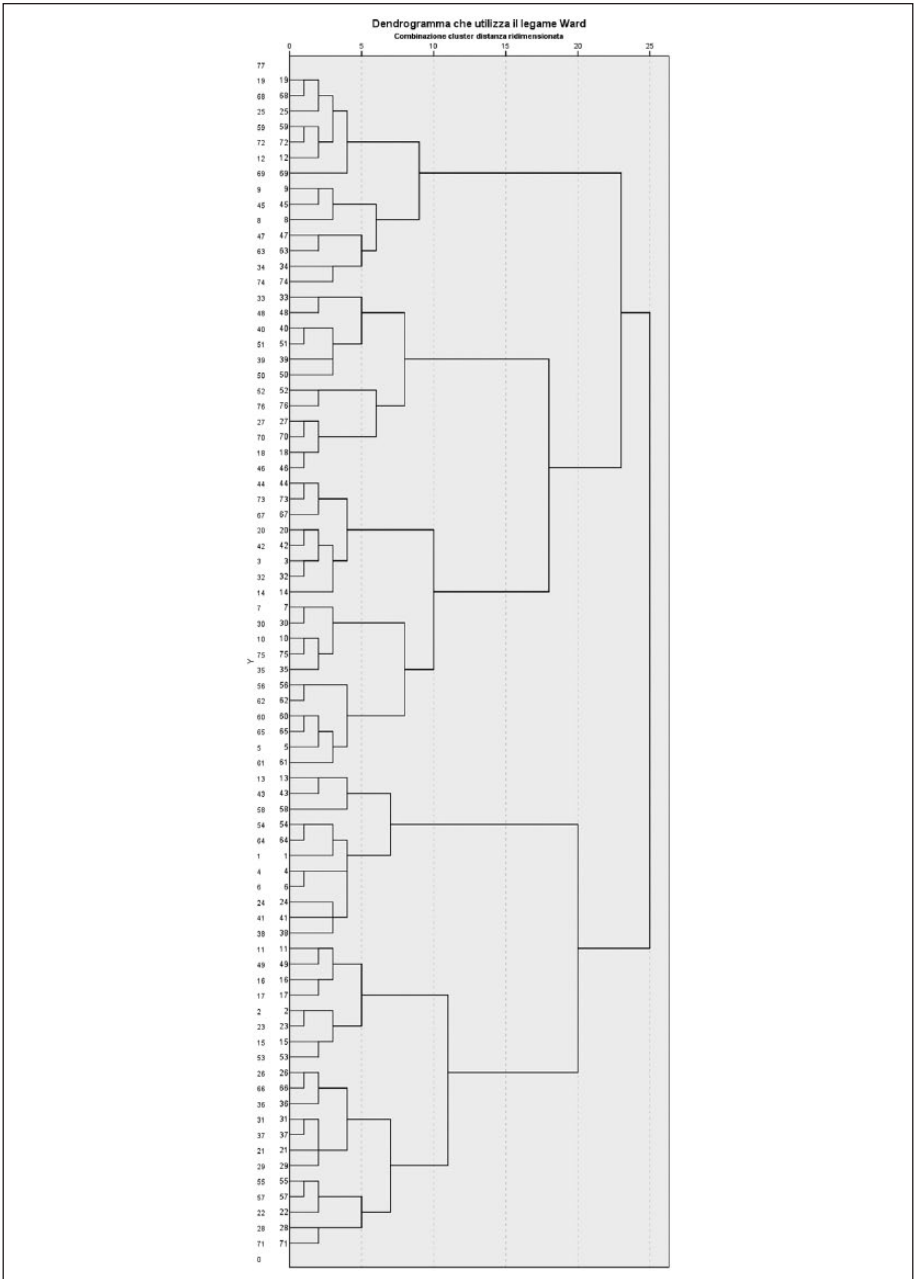
## Appendix A (continued)

No.	Model
43	Expected return
44	Wallace assessment tool
45	Trucost
46	The FINCA client assessment tool
47	The B impact rating system
48	Triple Bottom Line (TBL) scorecard
49	Success measures data system
50	Social value metrics
51	Social rating
52	Social performance indicators
53	Acumen scorecard
54	Cost per impact
55	Charity assessment method of performance
56	Ongoing Assessment of Social Impacts (OASIS)
57	Participatory impact assessment
58	Social footprint
59	Toolbox for analyzing sustainable ventures in developing countries
60	Public value scorecard
61	Social compatibility analysis
62	Social return assessment
63	Socioeconomic assessment toolbox
64	Stakeholder value added
65	Wellventure monitor
66	Star social firm
67	Social enterprise mark
68	Community impact mapping
69	Outcome star
70	Weelbeing measure
71	The Committee on Sustainability Assessment (COSA) Methodology
72	C3 Perform
73	Family of measures
74	Customer service excellent
75	Business ethics excellence model
76	SIM tool survey

Note. EFQM = European Foundation for Quality Management; GRI = Global Reporting Initiative; LM3 = Local Multiplier 3; SIMPLE = Social IMPact Measurement for Local Economies; HIP = Human Impact + Profit; OASIS = Ongoing Assessment of Social Impacts; EMAS = European Union Eco-Management and Audit Scheme.

# Appendix B

## The dendrogram



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## Notes

1. For more information see: <http://trasi.foundationcenter.org/search.php>
2. For more information see: <http://www.proveandimprove.org/>

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