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Social Accounting at Work: An Analysis of Social Impact Measurement Models

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The development of the field of social entrepreneurship has drawn attention to the need for additional work on identifying and measuring the value created through the solution of social problems by means of businesses with social impact. There has been a multiplication of the measurement models for satisfying the most widely varying demands for information about the Social Impact (SI) generated by social enterprises, although so far the results cannot be considered exhaustive. In this context, the present study attempts to contribute to the debate by investigating the effectiveness of SI measurement models in accounting and communicating SI creation, in relation to the main stakeholders' needs for information. As a result, a framework for analysing and classifying the main social accountability models is provided. The analysis shows that the measurement models considered are not always able to provide useful information for the assessment of the social activities carried out and the extent to which social oriented organizations fulfil their social goals as stated in their missions and their contribution to the promotion of wider and institutional social change.

Keywords: social enterprise, social impact, measurement models

Introduction

The lasting economic crisis in recent years has sharpened the gap between rich and poor even in countries that until a few decades ago had been able to count on a redistribution of income that minimized poverty and pain. Solidarity, subsidiarity, and the centrality of the human being have become increasingly contemporary themes in the light of social situations which economic prosperity seems to have overlooked. This tendency is reflected in the organizational forms such as cooperatives and social enterprises that have traditionally characterized the Italian entrepreneurial landscape (Borzaga & Ianes, 2006).

A form of company known as a "social enterprise" (SE) was introduced into Italian law in 2006 in order to favor businesses capable of promoting wider and institutional change. The prolonged economic crisis and job shortages led the Italian government to intervene again six years later, with recognition for new forms of entrepreneurial organization. In 2012 a particular type of SE was introduced for social oriented start-ups, defined through its potential to benefit the social system through the use of a highly technological approach on both the product and the process sides.

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To encourage this type of SE, the law includes the possibility of tax relief, but only if the Social Impact (SI) achieved is proven. The result has been the emergence of a type of SE founded to impact on social change, which must regularly prove that it is pursuing social goals through the use of accountability tools. This implies that appropriate measurement tools and processes must be adopted to different information needs.

This study analyzes the main features of the main social measurement models in the attempt to ascertain how effectively these models are able to gauge and report the SI to different stakeholders. If the SI is captured and communicate properly for each stakeholder's information need, the accountability process can offer an objective evaluation of the organizations' social impact. At the same time, accurate results may allow the assessment of the effectiveness of setting up the priorities for each type of social oriented organization, for fostering social change.

Moreover, adequate social accountability processes can not only contribute to a greater involvement of the stakeholders, but also raise awareness of entrepreneurial solutions to social problems, and can facilitate the scaling-up and replication of processes which generate SI.

The study is organized as follows: In the first section, the multidimensional approach to SE in the literature is examined. This followed by an overview of SE in the Italian context. Subsequently, the main widely adopted SI measurement models are analyzed and classified on the basis of their main features. Finally, the data are presented in a new framework of analysis and the main results and implications for SI measurement in the case of social oriented organizations are proposed. The results show that SI measurement models do not always comply with the stakeholders' needs of information and the guidelines of specific legislation. This evidence confirms the need to consider the purpose of the measurement process in order to provide an appropriate social accountability process.

Theoretical Framework

Social Entrepreneurship

Social entrepreneurship has become a topic of great importance during the last few years, especially in the light of the many successful examples from all over the world and a variety of sectors, fuelling the debate amongst the business community, academics, and legislators (Boschee, 2006; Nicholls, 2006). Virtually untouched by academic research until the late 1990s, since then social entrepreneurship and SEs have become major research topics (Dacin, Dacin, & Matear, 2010; Short, Moss, & Lumpkin, 2009), reflected by the growing number of articles and books on the subjects. The study of social entrepreneurship has developed along different lines in the Anglo-sphere and in continental Europe. In the former, attention has focused on the commercialisation of the non-profit sector and the creation of private firms supplying goods and services for public welfare. In continental Europe, however, attention has been concentrated much more on community entrepreneurship and studies at the organisational level (Defourny & Nyssens, 2008).

Although social entrepreneurship and SEs have met with widespread approval over the years, their definition is still highly context-dependent, meaning that different interpretations are possible; the main difficulty is that social entrepreneurship is a contingent combination of activities, which various researchers have set out to interpret and measure (Bacq & Janssen, 2011; Nicholls, 2010). However, most researchers agree on some common features which define the boundaries of social entrepreneurship (Martin & Osberg, 2007). All definitions of social entrepreneurship agree that social and environmental results must be given top priority, with the maximisation of profit and other strategic considerations taking a secondary role (Dees, 1988). This

"social utility" dimension is expressed not only through the creation of public goods and positive externalities, but also through new organisational processes. Another common characteristic is innovation: It may be pursued through new organisational models and processes, and new products and services, or through a new way of conceiving and defining society's demands. Finally, many authors point out that social entrepreneurs promote their socially innovative models through market-oriented actions, where economic performance is of primary importance, while extending their projects into other contexts, through alliances and partnerships, with the idea of achieving broader, more sustainable results (Weerawardena & Mort, 2006). These three aspects make up what Nicholls and Cho (2006) identify as the main constituent elements of social entrepreneurship: sociality, innovation, and market orientation. This article adopts the multi-dimensional approach set out above, recognising three key definitional features of social entrepreneurship.

Furthermore, social entrepreneurship may take a variety of legal forms, some of them hybrids, generally depending on the legal framework in the different countries concerned (Ebrahim, Battilana, & Mair, 2014). The development of the field of social entrepreneurship needs additional work on identifying and measuring the value created in solving certain classes of problems whose solutions have a SI. That would allow comparing the impact of different social entrepreneurship activities. Unfortunately, this necessity is often frustrated by the complexity of reality and not by the inability of those who are called upon to make such measurements. The variability and not predictability of human behaviours, coupled with the extreme subjectivity of values such as ethics and morality, make the use of measuring instruments quite complicated (Mulgan, 2010).

Social Impact Measurement

Studies on social entrepreneurship are increasingly in agreement concerning the need to adopt tools for measuring the results achieved by SEs, in order to produce information for use both for the internal decision-making process and for more effective communication with the largest possible number of stakeholders. Therefore, the purpose of this study is to investigate the role of SI measurement models in assessing and accounting their multidimensional results to different stakeholders.

Academics and professionals have developed a number of different measurements, assessment, and monitoring methods. The lack of agreement on the concept of SI causes confusion and is a hindrance to the satisfactory study and assessment of this aspect of economic performance. Its interdisciplinary nature leads to major differences in interpretation in the various academic sectors: From the sociological point of view, SI is defined as the combination of the social and cultural consequences arising from all the public or private actions that affect the ways in which people live, work, relate to one-another, organise to satisfy their needs and in general interact as members of society (Burdge & Vanclay, 1996). Freudenburg (1986) views SI in terms of a vast range of effects or consequences which may be experienced by an equally large assortment of social groups as the outcome of any course of action. From the psychological perspective, SI is any change in mental states and subjective impressions, motivations and emotions, knowledge and beliefs, values and behaviours, which occur in a human or animal individual further to the real, implicit or imagined presence or actions of other individuals (Latané, 1981).

In field of economics, SI is defined as the part of the total result occurring further to the activities of an organisation over and above what would have occurred without these activities (Rosenzweig, 2004). This definition is accepted, although in the world of social finance, by Nicholls, Nicholls, and Paton (2015), who defines SI as a series of foreseen and unforeseen changes in the economic prosperity of the community arising

from the allocation of social investment capital. This impact occurs whenever the effects produced by an economic activity reach beyond what would have been expected to occur. However, perhaps the most exhaustive definition, also in the field of economics, is that provided by the International Association for Impact Assessment (IAIA), which considers SI as the result of the intended and unintended, positive and negative social consequences of planned interventions (policies, programs, plans, and projects), and any processes of social change which they aim to bring about.

The objective difficulty of defining SI is reflected by at least the same level of difficulty in deciding how to measure it and which tools to use. Differences in measurement approaches and methods can be traced to two main causes. Firstly, SEs differ in size, business, and consequences, and the stakeholders interested in receiving the information therefore differ, too. It is therefore not easy to come up with a one-size-fits-all model (Arena, Azzone, & Bengo, 2015). Secondly, measurement may serve different purposes: In general terms, it may be addressed to parties inside or outside the organisation. A measurement tool may be used as an internal management tool, enabling the organisation to assess its performance and support its internal decision-making process. Conversely, measurement tools for external reporting help in the writing of reports mainly addressed to the various stakeholders.

In spite of this diversity in organisations and measurement systems, it is important to note that there is a convergence of views on some issues. First and foremost, there is general agreement concerning the multi-dimensionality of these organisations' objective. Not only there is a difference between financial and non-financial performance, but the latter is also considered in relation to the impacts it has had on the local community, the environment, society in general and the people who work for the organisation (Grieco, Michelini, & Iasevoli, 2014; Arena et al., 2015). There is also consensus on the fact that performances must be linked to the different type of results achieved. A distinction is made between immediate results (outputs) and medium and long-term results (outcomes and impacts).

Although, as already mentioned, interest in impact measurement is growing, in literature the definitions given to "impact" and "outcome" may vary. Ebrahim and Rangan (2014) distinguish between outputs (immediate results), outcomes (medium- and long-term impact on individuals), and impacts (medium and long-term impacts on communities or populations). Although there is unanimous agreement that organisations should at least measure the resources (inputs) used in their activities and their immediate results (outputs), Ebrahim and Rangan (2014) are in doubt as to whether SEs should go further than this and also measure their medium and long-term results (outcomes and impacts). Their main argument is that the causal nexus between outputs and outcomes is unclear, and that outcomes and impacts are often beyond the enterprise's control. Ebrahim and Rangan (2014) also maintain, principally on the basis of the professional technical literature, that concentrating on the measurement of outcomes and impacts could be counter-productive, since it would force organisations, many of which are small in size, to make measurements which they would not necessarily be able to use to achieve better results. Their suggestion is that outcomes and impacts should be measured at the aggregate level, for example by governments, foundations, or investors.

Main Models for Social Impact Measurement

In spite of the difficulties discussed above, there have been many attempts to measure the value created by SEs. The demand for new methods for measuring SI has come from many different players, including foundations, public officials, politicians, investors, and above all the SEs themselves, who wish to demonstrate

their impact to financiers, partners, and beneficiaries. Therefore, during the last few decades there has been a multiplication of the measurement systems for satisfying the most widely varying demands for information about the SI generated by SEs, giving rise to hundreds of calculation methods, often in competition with one-another (Mulgan, 2010). Measurement models come not only from the academic literature but also from standards published by intergovernmental organisations, industry associations, and individual corporate codes of practice. There have been various attempts to classify the many measurement models created over the years (Bengo, Arena, Azzone, & Calderini, 2015; Maas & Liket, 2011; Nicholls, 2005; 2015; Zappalà & Lyons, 2009), although so far the results cannot be considered exhaustive. Amongst these, Grieco et al. (2014) first selected 76 models from academic and operating databases by means of keywords and then subdivided them into four clusters on the basis of their main characteristics: quantitative, holistic, qualitative, and managerial.

For the purposes of our study, from these 76 models we selected the ones most often discussed in articles published in academic journals according to consolidated database combined search techniques (Belcher, Rasmussen, Kemshaw, & Zornes, 2016). Using Scopus, one of the most important databases of abstracts and quotations from the peer-reviewed literature, we selected two models for each category. To make the selection, we conducted a search on Scopus on the basis of the number of times the models appeared as keywords¹ in articles published in academic journals in the business, management, and accounting areas. The table below lists the mostly mentioned models subdivided into the clusters identified by the study taken as reference.

Table 1

Mostly Mentioned Models in Articles Published in Academic Journals in the Business, Management, and Accounting Areas as Keywords

Cluster	Models				
	Social Return on Investment (SROI)				
Quantitative	Stakeholder Value Added (SVA)				
Holistic	Global Reporting Initiative (GRI)				
	Social Balanced Scorecard (SBSC)				
O. I'm	Triple Bottom Line (TBL)				
Qualitative	Social Rating (SR)				
M1	Eco-Management and Audit Scheme (LCA)				
Managerial	Investors in People (IiP)				

The Selection of the Adequate of SI Measurement Model

As reported in the previous review of the existing SI measurement, the comparison of the various models and identification of their main distinguishing features at the operating level (Bagnoli & Megali, 2011; Nicholls, 2009; Swanson & Di Zhang, 2010) has brought considerable steps forward in terms of both their validation and their use. However, one noticeable gap is the lack of theoretical foundations for the comparison between the various models for the creation and measurement of SI (Kroeger & Weber, 2014). In this context, the question this study attempts to answer is: How effective are SI measurement models in assessing and internally and externally measuring and reporting multidimensional results, in relation to the main needs for information? The adequacy and the effectiveness of the measurement models are fundamental for evaluating if and how the operations of SEs contribute to wider and institutional social change. Theoretical studies which set out to understand and analyse the creation of value in the social context have occasionally been preceded by analyses

¹ A complete list of the keywords is included in Appendix A.

of their use, first addressing the problem of measurement (Reinhartd, 2011; White, 2010). If the model used for measuring a multidimensional phenomenon such as SI is analysed without first investigating its individual sources, the risk is that the same measure may be used to assess dimensions which are actually of different kinds. It is therefore fundamental to start by choosing the approach adopted, while never forgetting the parameter to be measured—the SI to be assessed. An emphasis on identification of the measurement model has often highlighted the difficulty of assessing SI produced in similar contexts but with different resources and needs (Brakman, 2013; Ebrahim et al., 2014).

Social accountability is based on the combination of the various stakeholders' needs for information and the balancing of their respective social and economic interest and expectations, which may often be conflicting (Gray, 2002; Mathews, 2004; Lamberton, 2005). This is particularly important for SEs which base their businesses on a mission addressed to a complex system of stakeholders. Moreover, the relationships between the various players involved in the SE are on a variety of levels (institutional, social, economic, and cultural, etc.) and evolve over time, since in the Italian context the regulatory framework and SE ecosystem are constantly changing.

Therefore, the social accounting process could be tailored more closely to the SEs specific characteristics, since it offers a measurement process based on an analysis of interests and expectations of various kinds. Moreover, like its traditional equivalent, social accounting is required to fulfil a multiplicity of informative functions within the company's processes (Cooper & Owen, 2007; Unerman & Bennett, 2004).

The Implementation of the Measurement Process

As well as fulfilling a reporting function for a variety of players, in traditional accounting the results of the measurement processes can be used for planning and control processes, to bring behaviours into line with the company's overall objectives (Cerbioni, Cinquini, & Sòstero, 2011). The standard distinction is between analytical accounting—with outputs addressed mainly to recipients within the company—and general accounting, intended mainly for external players. This distinction also bears in mind the different main objectives of these two accounting categories: On the one hand, financial accounting is used primarily for measuring assets and liabilities and establishing the overall result for a period, while on the other, managerial accounting is used to calculate specific results, such as the costs of products and processes, margins on various areas of business, etc. (Garrison, Noreen, & Brewer, 2003). On the basis of the various underlying aims of accounting processes, we aim to provide an initial analysis of issues which can be served by the different SI measurement models (internal and/or external reporting and measurement of specific and/or overall results). The prevalent approach in traditional accounting involves the identification, acquisition, measurement, and analysis of financial data in order to support companies' decision-making process (International Standard Accounting Board, 2010). Accounting is therefore the shared "language" used for economic and financial information about the company's business, used to inform stakeholders, both external (shareholders, creditors, etc.) and internal (owners and managers), or institutions and regulatory bodies (such as tax authorities and stock exchanges, etc.), how the company is pursuing its economic and overall returns in the short and long run. This information is usually supplied by means of formal documents such as financial statements, business plans, industrial plans, etc., which provide quantitative and qualitative explanations of how economic resources are managed within the company's operations.

The Purpose of the Measurement Process

The reporting functions assigned to the accounting system are expressed in the concept of accountability, meaning the obligation to provide the reader with a specific type of information and allow the assessment of actions related to an area of responsibility, performance with regard to which must be evaluated. Typically, these reporting obligations are established by regulations or legislation and verified by the institutions assigned to monitor them. Social reporting is considered as discretionary for traditional enterprises, but it assumes a role of primary importance when it becomes an essential prerequisite for the enterprise's very existence: In this case, it must comply with criteria established by the regulatory framework.

What is required is therefore to identify what the enterprise is responsible for and provide information about its operations to the parties which need to receive this information in order to monitor its performance (Gray, Owen, & Adams, 1996). The various stakeholders, in the broad sense, are considered potential recipient groups for accounting information, and can be classified on the basis of their inputs to the organisation and their expectations in terms of returns. Given this two-way flow in information (Cooper & Owen, 2007), the measurement model chosen must be capable of translating the "dialogue" between the stakeholders on the one hand and the enterprise on the other into a language meaningful for the assessment of value. This model must consider both points of view in order to satisfy the final objective of the SI measurement process, that of assessing how and to what extent the SE is pursuing its mission, considering the resources used.

SI measurement involves a number of complexes, widely differing dialogues which must be made intelligible for the parties which need to interpret them. Therefore, the recipients of "internal" strategic information are the mission stakeholders, meaning the parties to whom the process of creating the SI is mainly addressed, and those responsible for the management of the enterprise's operations. "External" information is intended for stakeholders in the broader sense, including institutions, society, the environment, etc.

Another important reporting requirement, often necessary for verification of the social project's long-term sustainability, is the life-cycle assessment of social products and/or processes in terms of the environmental impact produced (Epstein, 2008).

SI is created in processes which innovate social products or services with the final aim of innovation of the system itself. In order to take effect, this process must include changes in concepts and mentalities which are sustainable over the long term and capable of spontaneously taking effect in different contexts and situations. According to the *Open Book of Social Innovation* (Murray, Caulier-Grice, & Mulgan, 2010), this is normally reflected in all four sectors: the economy, government, society, and the family. This also implies the need for modifications to the main measurement models used to quantify and manage the change taking place.

After analysing the characteristics, a model is required to provide and the information needs it must fulfil; in order to test models' adequacy (under the accounting approach) we must consider them from the point of view or the measurement process and not just the results obtained.

Conclusions

The suitability of the measurement model for SEs depends on the definition of SI. This is possible if we consider the prevailing component in the SI multidimensionality that can be represented by evolutions in social needs or by market orientation. Recent literature has underlined that SEs vary across geography and communities (Seelos, Mair, Battilana, & Dacin, 2011; Ebrahim et al., 2014). We further highlight that various types of SEs, with different prerogatives, resources, and forms of organization, may have different information

needs for their internal and external reporting processes. The efficiency of the measurement models that SEs adopt for assessing their SI and reporting it to multiple stakeholders is affected by social accountability issues. At this stage, we are not able to pinpoint a one-size-fits-all model.

Another issue to be considered in the choice of the model is the phase of firm's development. It is important to consider SE's age for the measurement of the SI generated and the instruments needed for its assessment at the same way as for the evaluation of the economic results. For example, for the evaluation of a new SE in terms of multidimensional results (outcomes and impacts for social change) we suggest a "participatory" Social Impact Plan that considers its main prerogatives and resources and is capable of providing a useful tool for further assessment of the measurement models provided. Setting out not only the social objectives but also the plan for the sequence of activities associated to each evolving aspect of SI may enact meaningful forms of downward accountability to stakeholders and gradually increase their involvement.

Stakeholders' inclusiveness is another important topic for the better application of measurement tools and processes designed to meet the demand for accountability to different forms of SEs. In fact, while consolidated Corporate Social Responsibility measurement and reporting models consider stakeholders' involvement as one of the pillars for both defining the materiality of social actions and identifying the topics for measurement and reporting, it plays a much smaller role in SI measurement models.

Finally, we can state that in assessing SI measurement models, we have no common ground for measurement to rely on, since SI is multidimensional and thus involves a variety of activities for which benchmarks or standards are still absent (Santos, 2012). This can be a limitation for measurement models, as they represent useful frameworks but have not yet developed application standards for the various configurations of SI, and especially to define the operational aspects that facilitate the implementation of the model itself. If we consider financial statements, for example, while legislation frames the goals and standards for drafting the document, accounting standards provide the "recipe" for their application. Similarly, the SI measurement models need to include protocols that can help users to better understand and develop the tools they offer for the measurement for different social issues. By the same token, in order to better adapt to different organizations which may generate different types of SI, models need to be supported by greater understanding before their application, thus ensuring consistency with measurement and reporting requirements. This can also be useful for capturing the impact produced in mutual scenarios and for evolving needs.

References

Association for Impact Assessment. (2017). Definition of impact assessment. Retrieved from http://www.iaia.org/index.php Arena, M., Azzone, G., & Bengo, I. (2015). Performance measurement for social enterprises. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 26, 649-672.

- Bacq, S., & Janssen, F. (2011). The multiple faces of social entrepreneurship: A review of definitional issues based on geographical and thematic criteria. *Entrepreneurship & Regional Development: An International Journal*, 23(5), 373-403.
- Bagnoli, L., & Megali, C. (2011). Measuring performance in social enterprises. *Nonprofit and Voluntary Sector Quarterly*, 40(1), 149-165.
- Beattie, V., & Thomson, S. J. (2007). Lifting the lid on the use of content analysis to investigate intellectual capital disclosures. *Accounting Forum*, 31(2), 129-163.
- Belcher, B. M., Rasmussen, K. E., Kemshaw, M. R., & Zornes, D. A. (2016). Defining and assessing research quality in a transdisciplinary context. *Research Evaluation*, 25(1), 1-17.
- Bengo, I., Arena, M., Azzone, G., & Calderini, M. (2015). Indicators and metrics for social business: A review of current approaches. *Journal of Social Entrepreneurship*, 7(1), 1-24.
- Borzaga, C., & Ianes, A. (2006). L'economia della solidarietà: Storia e prospettive della cooperazione sociale. Roma: Donzelli.

- Boschee, J. (2006). Social entrepreneurship: The promise and the perils. In A. Nicholls (Ed.), *Social entrepreneurship. New models of sustainable social change* (pp. 356-390). Oxford: Oxford University Press.
- Brakman, R. D. (2013). Theorizing forms for social enterprise. Emory Law Journal, 62, 681-739.
- Burdge, R. J., & Vanclay, F. (1996). Social impact assessment: A contribution to the state of the art series. *Impact Assessment*, 14, 59-86.
- Cerbioni, F., Cinquini, L., & Sòstero, U. (2011). Contabilità e bilancio. Milan: McGraw-Hill.
- Cooper, S. M., & Owen, D. L. (2007). Corporate social reporting and stakeholder accountability: The missing link. Accounting, Organizations and Society, 32(7), 649-667.
- Costa, E., & Ramus, T. (2012). The Italian Economia Aziendale and catholic social teaching: How to apply the common good principle at the managerial level. *Journal of Business Ethics*, 106(1), 103-116.
- Dacin, P. A., Dacin, M. T., & Matear, M. (2010). Social entrepreneurship: Why we don't need a new theory and how we move forward from here. *Academy of Management Perspectives*, 24(3), 37-57.
- Dees, J. G. (1988). The meaning of social entrepreneurship. Retrieved from https://entrepreneurship.duke.edu/news-item/the-meaning-of-social-entrepreneurship (visited 21 January 2017)
- Defourny, J., & Nyssens, M. (2008). Conceptions of social enterprise in Europe and in the United States. A comparative analysis. 8th ISTR International Conference and 2nd EMES-ISTR European Conference: "The Third Sector and Sustainable Social Change: New Frontiers for Research", Barcelona.
- Ebrahim, A., Battilana, J., & Mair, J. (2014). The governance of social enterprises: Mission drift and accountability challenges in hybrid organizations. *Research in Organizational Behavior*, *34*, 81-100.
- Ebrahim, A., & Rangan, V. K. (2014). What impact? A framework for measuring the scale and scope of social performance. *California Management Review*, *56*, 118-141.
- Epstein, M. J. (2008). Implementing corporate sustainability: Measuring and managing social and environmental impacts. *Strategic Finance*, 89(7), 24-31.
- Freudenburg, W. R. (1986). Social impact assessment. Annual Review of Sociology, 12, 451-478.
- Garrison, R. H., Noreen, E. W., & Brewer, P. C. (2003). Managerial accounting. New York: McGraw-Hill/Irwin.
- Gray, R., Owen, D. L., & Adams, C. (1996). Accounting and accountability: Social and environmental accounting in a changing world. Harlow, England, and New York: Financial Times/Prentice Hall.
- Gray, R. H. (2002). The social accounting project and accounting, organizations and society: Privileging engagement, imagination, new accountings and pragmatism over critique? *Accounting, Organizations and Society, 27*(7), 687-708.
- Grieco, C., Michelini, L., & Iasevoli, G. (2014). Measuring value creation in social enterprises: A cluster analysis of social impact assessment models. *Nonprofit Voluntary Sector Quarterly*, 44, 1173-1193.
- Guthrie, J., Petty, R., Yongvanich, K., & Ricceri, F. (2004). Using content analysis as a research method to inquire into intellectual capital reporting. *Journal of Intellectual Capital*, 5(2), 282-293.
- International Accounting Standards Board: International Accounting Standards Board (IASB). (2010). The conceptual framework for financial reporting 2010. London: IASB.
- Krippendorff, K. (1980). Content analysis: An introduction to its methodology. Beverly Hills, USA: Sage.
- Kroeger, A., & Weber, C. (2014). Developing a conceptual framework for measuring social value creation. *Academy of Management Review*, 39(4), 513-540.
- Lamberton, G. (2005). Sustainability accounting—a brief history and conceptual framework. Accounting Forum, 29(1), 7-26.
- Latané, B. (1981). The psychology of social impact. American Psychologist, 36(4), 343-356.
- Maas, K., & Liket, K. (2011). Social impact measurement: Classification of methods. In R. Burritt, S. Schaltegger, M. Bennett, T. Pohjola, and M. Csutora (Eds.), *Environmental management accounting and supply chain management, eco-efficiency in industry and science* (Vol. 27, pp. 171-202). Delft, The Netherlands: Springer.
- Manetti, G., & Becatti, L. (2009). Assurance services for sustainability reports: Standards and empirical evidence. *Journal of Business Ethics*, 87, 289-298.
- Martin, R. L., & Osberg, S. (2007). Social entrepreneurship: The case for definition. *Stanford Social Innovation Review, Spring*, 29-39.
- Mathews, R. (2004). Developing a matrix approach to categorise the social and environmental accounting research literature. *Qualitative Research in Accounting and Management*, 1(1), 30-45.
- Mook, L., Quarter, J., & Richmond, B. J. (2007). What counts: Social accounting for nonprofits and cooperatives. London: Sigel Press.

- Mulgam, G. (2010). Measuring social value. Stanford Social Innovation Review, Summer, 39-43.
- Murray, R., Caulier-Grice, J., & Mulgan, G. (2010). The open book of social innovation. London: The Young Foundation.
- Nicholls, A. (2005). *Measuring impact in social entrepreneurship: New accountabilities to stakeholders and investors?* London: ERSC Seminar, Local Government Research Unit.
- Nicholls, A. (Ed.). (2006). Social entrepreneurship. New models of sustainable social change. Oxford: Oxford University Press.
- Nicholls, A. (2009). "We do good things, don't we?": "Blended Value Accounting" in social entrepreneurship. *Accounting, Organizations and Society, 34*(6), 755-769.
- Nicholls, A. (2010). The legitimacy of social entrepreneurship: Reflexive isomorphism in a pre-paradigmatic field. *Entrepreneurship Theory and Practice*, *34*(4), 611-633.
- Nicholls, J. (2015). Measuring social impact. Pioneers Post Quarterly, Summer(1), 49-53.
- Nicholls, A., & Cho, A. H. (2006). Social entrepreneurship: The structuration of a field. In Nicholls A. (Ed.), *Social entrepreneurship. New models of sustainable change* (pp. 99-118). Oxford: Oxford University Press.
- Nicholls, A., Nicholls, J., & Paton, R. (2015). Measuring social impact. In A. Nicholls, J. Emerson, and R. Paton (Eds.), *Social finance* (pp. 253-281). Oxford: Oxford University Press.
- Reinhardt, C. S. (2011). Evaluating methods for estimating program effects. The American Journal of Evaluation, 32, 246-272.
- Rosenzweig, W. (2004). Double bottom line project report: Assessing social impact in double bottom line ventures. *Working Paper Series*. Centre for Responsible Business at Berkeley-Haas.
- Santos, F. M. (2012). A positive theory of social entrepreneurship. Journal of Business Ethics, 111(3), 1-17.
- Seelos, C., Mair, J., Battilana, J., & Dacin, T. (2011). The embeddedness of social entrepreneurship: Understanding variation across local communities. In C. Marquis, M. Lounsbury, and R. Greenwood (Eds.), *Research in the sociology of organizations*. Communities and organizations (Vol. 33, pp. 333-363). Sydney: Emerald Press.
- Short, J., Moss, T., & Lumpkin, G. (2009). Research in social entrepreneurship: Past contributions and future opportunities. *Strategic Entrepreneurship Journal*, *3*, 161-194.
- Swanson, L. A., & Di Zhang, D. (2010). The social entrepreneurship zone. *Journal of Nonprofit & Public Sector Marketing*, 22(2), 71-88.
- Unerman, J., & Bennett, M. (2004). Increased stakeholder dialogue and the Internet: Towards greater corporate accountability or reinforcing capitalist hegemony? *Accounting, Organizations and Society*, 29(7), 685-707.
- Weerawardena, J., & Mort, G. S. (2006). Investigating social entrepreneurship: A multidimensional model. *Journal of World Business*, 41(1), 21-35.
- White, H. (2010). A contribution to current debates in impact evaluation. Evaluation, 16, 153-164.
- Zappalà, G., & Lyons, M. (2009). Recent approaches to measuring social impact in the third sector: An overview. *Background Paper No.* 5. Centre for Social Impact. Retrieved from http://www.socialauditnetwork.org.uk/files/8913/2938/6375/CSI_Background_Paper_No_5_-_Approaches_to_measuring_social_impact_-_150210.pdf

Appendix A

			Appendix A			
Clusters	lusters Models		AT Article title	AB Abstract	KW Keywords	Business, management, and accounting—article
Cluster 1 Simple social quantitative	Soft outcomes universal learning	All fields	0	0	0	"Soft outcomes universal learning"
	Best available charitable option	1	0	0	0	"Best available charitable option"
	Co-operative performance indicators	1	0	0	0	"Co-operative performance indicators"
	* *	1	0	0	0	
	Local Multiplier 3 (LM3)	00	7	U	1	"Local Multiplier 3" or "LM3"
	Social Return on Investment (SROI)	88	′	14	10	"Social Return on Investment" or "SROI"
	MicroRate	6	0	0	0	"MicroRate"
	Pulse-Portfolio data management system	0	0	0	0	"Pulse-Portfolio"
	Expected return	2	0	0	0	"Expected return" and "Social enterprise" or "Social entrepreneurship"
	Cost per impact	0	0	0	0	"Cost per impact"
	Social footprint	17	1	1	2	"Social footprint"
	Stakeholder value added	1232	1	99	7	"Stakeholder" and "value added"
	AA 1000	149	1	12	0	"AA 1000" or "AA1000"
	GRI sustainability reporting framework	1,078	41	203	122	"GRI" or "Global Reporting Initiative"
	Measuring impact framework	42	1	4	0	"Impact framework"
	Millennium development goal scan	289	5	39	5	"Millennium development goal" or "MDG"
	Practical quality assurance system for small organizations	0	0	0	0	"Practical quality assurance system for small organizations"
	SOCIAL	4	0	0	0	"Social" and "Action" and "MFI"
	Social investment risk assessment	0	0	0	0	"Social investment risk assessment" and "SIRA"
	Social accounting and audit	14	0	1	0	"Social accounting and audit"
	Third sector performance dashboard	0	0	0	0	"Third sector performance dashboard"
Cluster 2	Impact reporting and investment standard	0	0	0	0	"Impact reporting and investment standard"
Holistic complex	Global Impact Investing Rating System (GIIRS)	1	0	0	0	"Global Impact Investing Rating System" or "GIIRS"
	Social enterprise balanced scorecard	236	7	16	7	"Sustainability balanced scorecard" or "SBSC"
	HIP scorecard	1	0	0	0	"HIP investor"
	Methodology for impact analysis and assessment	0	0	0	0	"Impact analysis and assessment"
	Success measures data system	0	0	0	0	"Success measures data system"
	Acumen scorecard	0	0	0	0	"Acumen scorecard"
	Charity assessment method of performance	0	0	0	0	"Charity assessment method of performance"
	Participatory impact assessment	7	0	0	0	"Participatory impact assessment"
	Star social firm	0	0	0	0	"Star social firm"
	The Committee on Sustainability Assessment (COSA) Methodology	0	0	0	0	"The Committee on Sustainability Assessment Methodology" and "COSA"

Clusters	Models	AF	AT	AB	KW	Business, management, and accounting—articles
		All fields	Article title	Abstract	Keywords	
Cluster 3 Qualitative screening	Atkisson compass assessment for investors	0	0	0	0	"Atkisson compass assessment for investors"
	BoP (Base of the Pyramid) impact assessment framework	0	0	0	0	"BoP impact assessment framework" and "Base of the Pyramid impact assessment framework"
	Fit for purpose	0	0	0	0	"Fit for purpose" and "Social enterprise"
	EFQM	3	0	0	0	"EFQM" and "Social enterprise"
	Logic model builder	0	0	0	0	"Logic model builder"
	Prove it!	1	0	0	0	"Prove it!" and "Social enterprise"
	Social Impact Measurement for Local Economies (SIMPLE)	0	0	0	0	"Social Impact Measurement for Local Economies" and "SIMPLE"
	Volunteering impact assessment toolkit	0	0	0	0	"Volunteering impact assessment toolkit"
	The values based checklist for social firms	0	0	0	0	"The values based checklist for social firms"
	Assessment and improvement indicators	0	0	0	0	"Assessment and improvement indicators"
	Charity analysis framework	0	0	0	0	"Charity analysis framework"
	Echoing green midyear and year-end report	0	0	0	0	"Echoing green midyear and year-end report"
	Movement above the US\$1 a day threshold	0	0	0	0	"Movement above the US\$1 a day threshold"
	Progress out of poverty index	1	1	1	1	"Progress out of poverty index"
	SCALERS	2	0	2	0	"SCALERS"
	Wallace assessment tool	0	0	0	0	"Wallace assessment tool"
	The FINCA client assessment tool	1	0	0	0	"FINCA" and "client assessment tool"
	Triple Bottom Line (TBL) scorecard	116	1	47	9	"Triple Bottom Line" and "TBL"
	Social value metrics	1	0	1	0	"Social value metrics"
	Social Rating	235	5	10	6	"Social Rating"
	Social performance indicators	31	1	8	3	"Social performance indicators"
	Ongoing Assessment of Social Impacts (OASIS)	0	0	0	0	"Ongoing Assessment of Social Impacts" and "OASIS"
	Public value scorecard	13	0	1	0	"Public value scorecard"
	Social compatibility analysis	1	1	1	1	"Social compatibility analysis"
	Social return assessment	0	0	0	0	"Social return assessment"
	Wellventure monitor	0	0	0	0	"Wellventure monitor"
	Social enterprise mark	3	0	0	0	"Social enterprise mark"
	Wellbeing measure	0	0	0	0	"Wellbeing measure"
	Family of measures	N/A				"Family of measures"
	Business ethics excellence model	1	0	0	0	"Business ethics excellence model"
	SIM tool survey	0	0	0	0	"SIM tool survey"

Clusters	Madala	AF	AT	AB	KW	Business, management, and accounting—article
	Models	All fields	Article title	Abstract	Keywords	
Cluster 4 Management	Eco-mapping	9	2	1	0	"Eco-mapping"
	Eco-Management and Audit Scheme (EMAS)	126	3	21	2	"Eco-Management and Audit Scheme" and "EMAS"
	Investors in people (IiP)	37	0	21	3	"Investors in people" and "IiP"
	Quality first	83	5	19	0	"Quality first"
	The big picture	7	0	0	0	"The big picture" and "Social enterprise" and "Social entrepreneurship"
	Cradle to cradle certification	41	1	5	1	"Cradle to cradle certification"
	Trucost	15	0	4	0	"Trucost"
	The B impact rating system	0	0	0	0	"The B impact rating system"
	Toolbox for analyzing sustainable ventures in developing countries	3	0	0	0	"Sustainable ventures in developing countries"
	Socioeconomic assessment toolbox	0	0	0	0	"Socioeconomic assessment toolbox"
	Community impact mapping	1	0	0	0	"Community impact mapping"
	Outcome star	1	0	0	0	"Outcome star"
	C3 Perform	38	0	0	0	"C3 Perform"
	Customer service excellent	0	0	0	0	"Customer service excellent"