Demonstrating value: how entrepreneurs design new accounting methods to justify innovations

Emily Barman[a], Matthew Hall[b]* and Yuval Millo[c]

[a]*Department of Sociology, Boston University, Boston, United States of America;*
[b]*Department of Accounting, Monash University, Melbourne, Australia;*
[c]*Department of Accounting, University of Warwick, Coventry, United Kingdom* and *Department of Management and Marketing, University of Melbourne, Melbourne, Australia*.

*corresponding author: matthew.hall2@monash.edu

Accepted by Teemu Malmi.

- Date of first submission: 16 October 2017
- Date of final acceptance: 7 May 2020

Demonstrating value: how entrepreneurs design new accounting methods to justify innovations

An important activity of entrepreneurs is to justify the value of an innovation to gain support from stakeholders. We examine how entrepreneurs can develop an accounting methodology to demonstrate the value of a proposed innovation, focusing on the case of a charitable foundation's promotion of social enterprise and its efforts to develop the accounting methodology of Social Return on Investment (SROI). We show how the process for designing new accounting methods that helps in demonstrating the value of innovations involves entrepreneurs (1) imagining the expectations of their stakeholders (2) putting in place the necessary infrastructure through which numbers can be generated and (3) iteratively reconfiguring the accounting methodology *and* the espoused value the innovation is expected to generate. Our study furthers understanding of the role of accounting numbers in the entrepreneurial process, particularly in situations where entrepreneurs seek to generate new accounting methodologies to develop persuasive stories about the benefits of their innovations.

Keywords: innovation, accounting, entrepreneurial storytelling, social enterprise, social return on investment.

Introduction

An important activity of entrepreneurs is to communicate convincingly the potential value of an envisioned innovation to obtain support from important stakeholders (Seo & Creed, 2002; Suddaby & Greenwood, 2005; Lawrence & Suddaby, 2006; Etzion & Ferraro, 2010; David et al., 2013). The value in this context, the literature indicates, is the perceived merit, usefulness or desirability of the innovation in the eyes of such stakeholders, with entrepreneurs aiming for the proposed innovation to become 'taken-for-granted as a social fact' (Rao et al., 2000, p. 242). Effective communication is crucial in bringing about support from such stakeholders (e.g. allocating resources) and thus increasing the chances of the innovation being realised. Studies show how entrepreneurs can work discursively to present the potential merits of a proposal and convince stakeholder to agree with their presentation by aligning such presentation with

the stakeholders' existing preferences and routines (Suddaby & Greenwood, 2005; David et al., 2013). Importantly, however, prior research has presumed that entrepreneurs typically face difficulties in demonstrating the perceived value of an innovation to stakeholders (Suddaby & Greenwood, 2005; David et al., 2013).

A number of empirical examples indicate that pioneers of innovations can also engage in efforts to mobilise measured outputs as part of their efforts to demonstrate the value of their proposed changes. Recent research shows that, for example, entrepreneurs in the field of microfinance gathered data aimed at demonstrating how loans to women improved their economic welfare (Banerjee et al., 2015) and entrepreneurs developed a new stock market index to demonstrate the financial return of socially responsible investing (Déjean et al., 2004). More broadly, it is recognized that organizations are increasingly subject to pressures to use numbers to demonstrate their value to external audiences (e.g., Porter, 1995; Espeland & Sauder, 2007), where accounting numbers can be persuasive as part of discussions and debates about particular proposals or viewpoints (e.g., Kenno & Free, 2018; Goretzki et al., 2018; Christensen & Skærbæk, 2007; Kadous et al., 2005; Englund & Gerdin, 2015).

While the existing literature on persuasiveness analyses the dynamics involved in reusing and reframing existing accounting numbers, it provides us with little analytical insight when it comes to entrepreneurial activity. This is primarily due to the fact that entrepreneurs who aim to communicate convincingly to stakeholders the merits of a yet-unrealised innovation typically also operate in settings where useable accounting numbers do not exist. This motivates us to ask how such entrepreneurs aim to use numbers to bring about positive views among stakeholders regarding the value of their proposed innovation. Power (2015, p. 45) suggests that infrastructures that facilitate the generation of new accounting numbers are 'the often invisible and

neglected ground of visible accounting methodology.' We agree with this call for making accounting infrastructures, and the dynamics through which they come about, more visible. Thus, to address the question of how entrepreneurs generate persuasive accounting numbers, we aim to identify the infrastructures that are developed and utilised to support the generation of a persuasive entrepreneurial narrative that attempts to demonstrate the value of an innovation.

We examine the case of a charitable foundation's promotion of the social enterprise as an innovation (Tracey et al., 2011), and its related efforts to develop an accounting methodology. These efforts faced challenges as the value generated by social enterprises were deemed not compatible with the information compiled by existing accounting methodologies. This, in turn, motivated the entrepreneurs to develop an infrastructure that facilitated the collection, compilation, communication and analysis of new accounting numbers, in what would eventually become Social Return on Investment (SROI). As the entrepreneurs began doing so, however, especially as the design progressed and the methodology became more concrete, a significant transformation took place, not only in the accounting methodology but also a change in perception of the nature of value associated with the work of the social enterprises.

Our analysis shows that as the entrepreneurs sought to communicate effectively the merits of their innovation, and, as part of these efforts, aimed to demonstrate the value of social enterprises with SROI, they faced three challenges in developing a new (rather than deploying an existing) accounting methodology. (1) Rather than being able to draw on prior experience in dealing with stakeholders, entrepreneurs faced the challenge of imagining what types of numbers may be regarded as persuasive by the stakeholders from which the entrepreneurs wish to gain support for their innovation (c.f. Garud et al., 2014; Emirbayer & Mische, 1998). (2) To move from their imagined

methodology to its actual operationalisation (c.f. Hopwood, 1987; Briers & Chua, 2001; Chua, 1995; Andon et al., 2007; Power, 2015), entrepreneurs needed to mobilise resources such as money, time, and expertise to develop the infrastructure of the new accounting method. This dynamic stands in contrast with focusing efforts on framing and interpreting existing accounting numbers, which is commonly examined in the accounting literature. (3) The iterative and experimental nature of the development process (c.f. Garud et al., 2014; Briers & Chua, 2001; Chua, 1995; Andon et al., 2007) meant that the entrepreneurs faced ongoing challenges in reconfiguring both the accounting methodology *and* the espoused value their innovation is expected to generate.

Our study makes three contributions. First, we examine the roles that accounting numbers play in the entrepreneurial process, particularly where entrepreneurs aim to build persuasive arguments by developing new accounting methodologies rather than rely on existing numbers (e.g., Kenno & Free, 2018; Goretzki et al., 2018; Kadous et al., 2005; Englund & Gerdin, 2015). We show how the process of designing new accounting methods that help to demonstrate the benefits of innovations is qualitatively different from repurposing existing accounting numbers. This difference revolves around entrepreneurs (1) imagining the expectations of their stakeholders (2) putting in place the necessary infrastructure through which the numbers could be generated and (3) iteratively reconfiguring the accounting methodology *and* the espoused value the innovation is expected to generate. Importantly, we show how initial narratives about the future benefits of a proposed innovation are confronted with the constraints of realising the desired accounting methodology - as a result, both the accounting methodology, and, critically, the innovation itself, are reshaped.

Second, we contribute to the literature on entrepreneurial storytelling (e.g., Lounsbury & Glynn, 2001; Martens et al., 2007; Garud et al., 2014; Manning & Bejarano, 2017) by developing understanding of the role of numbers in generating persuasive stories about the benefits of innovations. Although this literature acknowledges that entrepreneurs change and revise their stories, it only links such changes and revisions to setbacks in the entrepreneurial venture itself (Garud et al., 2014). Instead, we show how entrepreneurial storytelling is better understood as an iterative process, involving on-going oscillation between the shape of the entrepreneurial innovation and the trials and experiments involved in producing persuasive stories about the innovation's benefits. From this perspective, not only do setbacks in the entrepreneurial venture lead to revised stories about the its benefits, but setbacks in the development of persuasive stories can lead to revisions to the shape of the innovation itself.

Third, we contribute to literature on accounting innovation (e.g., Hopwood, 1987; Miller, 1991; Jones & Dugdale, 1998, 2002; Power, 2015; Cooper et al., 2017) by focusing directly on the 'local laboratories' (Cooper et al., 2017, p. 1004) from which accounting innovations emerge. This focus is important as the conditions surrounding the early stages in the innovation process can shape the initial contours of the accounting innovation in ways that persist long after it has left the local laboratory. In this way, analysing the inception stages of the accounting innovation process can provide us with more complete understanding of the beginnings of new accountings (Power, 2015). In particular, we show how new accountings can begin as part of a proactive process owing to entrepreneurial innovation at a localised level rather than as a response to the formation and elaboration of new objects at the field level (Power, 2015). Our study also shows how the phases in the emergence of new accounting forms

may influence each other dynamically and recursively over time (c.f., Power, 2015), pointing to the ways in which challenges in developing accounting infrastructure can influence and potentially even transform object formation and elaboration.

The remainder of the paper is structured as follows: in the next section, we review research on entrepreneurs' efforts aimed at gaining support for their innovations. We examine how much of the existing research has been directed at analysing the discourse entrepreneurs generate, while relatively little attention has been given to the conditions that underpin the generation of such efforts. We use our discussion to highlight a gap in our knowledge regarding the role that accounting plays in innovation processes by demonstrating the future benefits of the proposed innovation. The third section outlines our data and methods, with the fourth section presenting our analysis from the empirical study. The fifth section discusses our findings, with the final section outlining our contributions and their implications for future research.

Demonstrating the value of an innovation

From rhetoric to numbers

To gain legitimacy for their new innovation, entrepreneurs need to convince stakeholders that their vision of the future has the possibility of coming to fruition, and can do so by conveying the innovation's future characteristics as well as the future benefits that might accrue to stakeholders (Lounsbury & Glynn, 2001; Garud et al., 2014). Prior literature assumes that this process is based on entrepreneurs successfully mobilizing a rhetorical narrative through which they exhibit the innovation to important stakeholders (Lounsbury & Glynn, 2001; Martens et al., 2007; Manning & Bejarano, 2017). To be persuasive, the rhetorical narrative needs to addresses the expectations of the potential stakeholder 'recruits', which can be achieved by highlighting the

innovation's cognitive, pragmatic and/or normative value (Strang & Meyer, 1993; Suddaby & Greenwood, 2005). Addressing stakeholder expectations may prove difficult, however, as the stakeholders can question the plausibility and value of the venture and may not comprehend the suggested future changes, especially when such changes differ significantly from their experience**.** As such, as part of their rhetorical efforts, entrepreneurs may seek to convince stakeholders by developing projective stories whereby they imaginatively generate possible future trajectories of action and suggest various permutations of the innovation's manifestation (Garud et al., 2014; Emirbayer & Mische, 1998). Such stories may prove to be credible and convincing to stakeholders when the storylines portray vivid accounts of future possibilities, the steps required to reach the desired outcomes, as well as connect to expectations of the future the stakeholders are already familiar with (Manning & Bejarano, 2017; Garud et al., 2014; Lounsbury & Glynn, 2001).

Although noting the importance of artefacts and evaluation routines (Garud et al., 2014), prior research on entrepreneurial storytelling has largely overlooked the conditions under which such narratives become persuasive. One of the ways in which entrepreneurs can aim to make their narrative more persuasive is through using or even relying on numerical representations as a central part of their communications to stakeholders (Dansou & Langley, 2013). This insight, in turn, is rooted in empirical observations indicating numerical data's perceived authority as an independent, rational, and objective source of knowledge about the social world (Porter, 1995), where it tends to be taken as a given that 'people find numbers credible ways of knowing and communicating' (Espeland & Sauder, 2007, p. 417). In addition, accounting research, particularly studies examining accountants as agents of change in organisations (e.g., Burns & Baldvinsdottir, 2005; Busco et al., 2006), shows how accounting numbers are

used as part of attempts to generate convincing arguments for change. For example, accounting numbers can be pitted against other forms of information in public policy debates (Hall & Millo, 2018); are used by managers to make other numbers more persuasive (Englund & Gerdin, 2015), or as raw materials in a process of sense-giving (Jordan & Messner, 2012). Actors also draw on accounting numbers to make persuasive arguments for different courses of action, such as particular investment proposals (Kadous et al., 2005), bargaining positions (Kenno & Free, 2017) or interpretations of performance (Goretzki et al., 2018).

Prior studies also suggest that entrepreneurs do undertake projects to develop new numbers in order to promote their innovations. Empirical examples include the area of Socially Responsible Investing, where proponents developed a new stock market index to demonstrate that socially and environmentally responsible companies could generate comparable financial return to traditionally selected stocks (Déjean et al., 2004), sustainability advocates who developed the Global Reporting Initiative and other rankings to demonstrate the worth of socially responsible businesses (Etzion & Ferraro, 2010; Bermiss et al., 2013), methods for measuring and valuing social impact to justify policy changes (Franks & Vanclay, 2013, Aledo et al., 2015), and a national survey to promote happiness as a policy objective (Bates, 2009; McBain & Alsamawi, 2014). In these examples, absent appropriate and ready-made numbers, entrepreneurs seek to develop and establish new methods that can be used in persuading stakeholders of the characteristics and benefits of the proposed innovation.

The challenges in generating new numbers

Importantly, as entrepreneurs attempt to design and put in place new accounting methods through which persuasive numbers would be generated, we suspect they are likely to face different challenges from the ones commonly faced by actors drawing on

existing numbers. Whilst the numbers drawn upon by the actors may be complex and thus require significant effort to make them persuasive for others, the potential challenge of producing the numbers in the first instance does not feature as a salient issue in these contexts. As such, the challenge for actors in drawing on existing numbers is mainly one of framing, interpretation and positioning. For example, convincing others that the numbers are objective and prepared competently (Kadous et al., 2005), and that they are legitimate, salient and appropriate to the discussions and negotiations at hand (Goretzki et al., 2018, Kenno & Free, 2018).

In contrast, an entrepreneur's vision of the future can often be difficult to communicate because appropriate artefacts and evaluation routines (e.g., accounting methods) have yet to materialise (Garud et al., 2014). This is complicated further by the fact that existing accounting methodologies are usually part of prevailing norms and routines, so entrepreneurs may find that such numbers cannot be mobilised or contextualized effectively to communicate their new vision, particularly where the proposed value of their innovation may not be reflected (or reflected appropriately) in the existing accounting information systems that are available (Hopwood, 1987; Power, 2015). As such, rather than repurpose existing numbers, entrepreneurs may need to imagine possible future accounting methods that they conjecture stakeholders would find persuasive (c.f. Garud et al., 2014; Emirbayer & Mische, 1998). This task is likely to be quite challenging as entrepreneurs need to imagine the ways in which the accounting method and its outputs could convey the characteristics and benefits of a yet non-existent innovation and do so in ways that stakeholders would find plausible and credible (cf. Garud et al., 2014).

The material dimension of the new accounting method also means entrepreneurs are likely to face challenges in mobilising resources. This is because in order to generate

a persuasive narrative that uses an accounting method, the entrepreneurs need to establish the infrastructure that would make possible such generation of information (i.e. by collecting, compiling and aggregating data) and then presenting that information in ways that help to sustain the credibility of the narrative. Prior accounting research indicates that putting in place this necessary infrastructure is a non-trivial task. For example, Hopwood (1987) recounts how, for Wedgewood, moving from the idea of cost to the ability to produce calculations of the cost of products was not easy. As no established procedures were available, the evidence of costing had to be laboriously created rather than simply being revealed by existing systems. Existing information systems may not collect the data that is required (Andon et al., 2007; Briers & Chua, 2001), leading to substantial efforts to construct new data items, and reconfigure and reconstruct existing data to fit the demands of the new method (Briers & Chua, 2001; Chua, 1995; Andon et al., 2007). For example, Power (2015) shows how existing systems could not produce effectively the information needed to operationalise the new category to be accounted for, prompting the creation of new roles (e.g., impact officers), information systems (e.g., collecting evidence of impact) and governance structures (e.g., peer review of impact case studies) to bring this about. Thus, operationalising the concept of research 'impact' required extensive infrastructure to be put in place in order to produce impact accounts.

It is important to note that a process of developing a new accounting method may also not proceed in a straightforward, linear fashion where entrepreneurs simply bring about their imagined accounting method (albeit with challenges and difficulties). Rather, entrepreneurs may need to go through a process of ongoing experimentation and trial and error (Briers & Chua, 2001; Chua, 1995; Andon et al., 2007; Jones & Dugdale, 2002; Cooper et al., 2017). For example, as they expose their initial formulations of the

proposed accounting method to stakeholders, entrepreneurs may realise that their beliefs about the kinds of methods and numbers stakeholders might find convincing were not correct or require modification, or that the espoused benefits of the innovation turn out to be difficult to demonstrate with their proposed accounting method. Conversely, entrepreneurs may fail to mobilise a sufficient quantity and/or type of resources needed to put their imagined accounting method into practice. In this situation, resource constraints can shape the ways in which the accounting method is developed, both limiting possibilities but also potentially prompting innovation to make the new accounting practice work (Andon et al., 2007).

Building on the literature on the persuasive power of accounting numbers, we focus on situations where entrepreneurs, as part of their efforts to persuade stakeholders to agree on a proposed future benefits of an innovation, take part in generating new accounting numbers to demonstrate the value of innovations, typically because usable accounting numbers do not exist or existing numbers are not appropriate. As they engage in these efforts, prior literature suggests that entrepreneurs can face challenges in imagining a new accounting method that stakeholders will find persuasive, and in mobilising resources to develop the necessary infrastructure to operationalise their new method. Finally, this process is likely to involve ongoing experimentation and trial and error as the entrepreneurs seek to bring about an accounting method that can persuasively demonstrate the value of the innovation to stakeholders. To understand how entrepreneurs design new accounting methods to demonstrate the value of an innovation, we conduct a qualitative, historical case study of REDF, a nonprofit organization committed to addressing the innovative use of social enterprises to solve the problem of homelessness in the Bay Area of San Francisco, and its development of a new accounting methodology, Social Return on Investment (SROI).

Research design

The case

The Roberts Enterprise Development Fund (REDF), which was originally formed under another name by the Roberts Foundation in 1990, sought to gain support for the new organizational form of the social enterprise – a for-profit company, each one owned and managed by a nonprofit, that provided employment training and opportunities – as the preferred vehicle to assist homeless individuals. Part of this process involved developing what would become SROI, a new accounting methodology for use by the nonprofit and its membership of funded social enterprises, as a means to demonstrate the social and economic value of social enterprises to key stakeholders.

Whilst prior studies have examined issues surrounding the use of SROI, such as challenges in its implementation (Arvidson et al., 2013; Arvidson & Lyon, 2014; Maier et al., 2015) or the content and structure of SROI reports (Krlev et al., 2013), very few studies have examined how the methodology was developed (but see Hall et al., 2015; Hall & Millo, 2018). Given our research questions, we focus our empirical attention not on the application of SROI but on entrepreneurs' efforts to construct the SROI methodology itself.

Data sources

As Hopwood (1987, p. 214) laments, 'it is rarely possible to witness the birth pains of a newly emergent accounting.' In a similar vein, we became aware of the case of REDF and SROI only after the fact, thus precluding our direct observation of events as they unfolded in real time. As such, like Hopwood, we seek to examine the development of SROI indirectly, drawing on multiple sources of data, including numerous documents pertaining to the development of the SROI methodology and secondary scholarship.

Unlike Hopwood and the case of Wedgewood, however, we were able to undertake interviews with key actors involved in the development of SROI at REDF given that the method had emerged relatively recently. At the first stage of data collection, using existing historical accounts of SROI (see, for example, Emerson et al., 1998; Emerson & Twersky, 1996**)** we identified an indicative set of the significant historical events in the history of REDF and SROI (Van de Ven & Poole, 1990). We collected these events into a timeline (Appendix A). At the second stage, we approached actors whom the historical records indicated played key roles in the emergence and development of SROI.

Our primary data source is documents, particularly those pertaining to REDF and its development of social enterprise and SROI. We obtained documents from two sources. The first source is publicly available documents. Given its leading role in developing and promoting social enterprise and later SROI, REDF produced and made public numerous documents, such as those outlining its views on social enterprise, as well as SROI reports, reports on pilot studies, and various SROI methodology guidance documents. In addition, we collected books and other documents on social enterprise and SROI written by actors at REDF. We gathered these documents based on a systematic web search, a search of WorldCat, and based on suggestions from our interview subjects. Appendix B provides a list of the publicly available documents analysed in the study.

The second source is over 20 proprietary documents our interviewees provided to us pertaining to work they had done on SROI, such as draft versions of SROI reports and methodology documents, documents elaborating the data collection and reporting systems they developed, as well as Excel spreadsheets used by participants to perform early-stage SROI calculations and analysis.

To complement our documentary sources, we also gained access to conduct eight in-depth interviews with actors who were involved in REDF's development of SROI. Given our research question is focused on entrepreneurs' construction of new accounting methodologies, we targeted those actors at REDF who were centrally involved in the formulation of SROI, as described in the documents and other publications recounting the history of REDF. We also followed purposive and snowball sampling principles (Morse, 2010) using information from interviews to identify and contact additional informants who were reported to have played a part in the historical events (Thompson, 2000, p. 151). At the time of our approach for interviews, it had been over 10 years since REDF had produced its SROI methodology, and many of the informants had moved on to other jobs and were no longer employed at or involved with REDF. As such, although the total number of interviews is relatively small, in such a context we were able to obtain access to many actors who played a central role in the development of SROI at REDF. In particular, many of the interviewees included in our study were those involved in writing the publicly available books and other reports we collected on REDF and its promotion of social enterprise and development of SROI.

Because our interview subjects were located across locales, we opted for using telephone interviews. The literature indicates that while telephone interviews do not reveal nonverbal cues and the immediate context (McCoyd & Kerson, 2006; Novick, 2008), the quality of data collected using this method is similar to face-to-face interviews (Sturges & Hanrahan, 2004; Sweet, 2002). Interviews were conducted between November 2012 and February 2013, lasted between 30 minutes and 2 hours, and were digitally recorded and then transcribed in full. We use pseudonyms to protect the identities of our interviewees (but refer to other actors that were not interviewed by name, such as George Roberts, where done so by our interviewees). We followed a

semi-structured interview protocol asking questions about the respondent's work history, their involvement with REDF and SROI, and in particular we focused on understanding their account of how SROI developed and their role therein. These interviews often expanded to include other topics of interest that respondents deemed relevant to this list of initial questions. Appendix C provides a list of interviewees, including their current job role, the type of organization in which they currently work, their prior work roles as they relate to REDF, and their location.

Data analysis

Our goal was to identify the dynamics related to the development of SROI, as we trace how the entrepreneurs aimed to develop the methodology to demonstrate the value of social enterprise as a new organizational form. We coded the documents and interviews employing an emergent methodology with a focus on actor-presented themes in the data (Glaser & Strauss, 1967). To analyze this data, we focused our data collection and analysis on the underpinning processes involved in developing and deploying the new accounting methodology.

The design of our analysis of the case of REDF and the new organizational form of social enterprise was based on our awareness that the process we describe is embedded in a complex, historical narrative, where differing and potentially conflicting motivations unfolded. Hence, we tried to collect, whenever possible, several data points for each of the events we identified as potential turning points in the process to produce a more comprehensive picture of the organization's efforts (Abbott, 1992; Glaser & Strauss, 1967). For example, we triangulated data from the interviews with draft documents prepared by the same interviewees and final versions of the same documents. Furthermore, when different actors or documents referred to the same events, we tried to reconcile differences in the versions (if such variation was exhibited

and was significant). On several occasions, we sent the transcripts of the interviews back to interviewees and asked for more details and/or additional clarifications.

As our interviews took place over 10 years after the events we analyse, they may suffer from informants' inability to recall events or to do so in particular ways. We addressed this concern in three ways. First, as noted above, the primary data source in our study is documents rather than relying only on interviews. Second, prior to conducting the interviews, we used our documents to construct a detailed understanding and timeline of events in the history of REDF and SROI coinciding with the events discussed during interviews (Lofland & Lofland, 1995). As such, during interviews, we used this understanding to prompt participants for further detail and/or refer them to relevant examples or illustrations to aid or nuance their descriptions and explanations. Third, in our data analysis, we placed more evidential weight on documentary sources, and avoided, where possible, relying on accounts of events or issues that emerged only from interviews.

Throughout the data analysis process, we compared our emerging themes regarding the key actor's efforts with existing research to identify the extent of correspondence between our data and the insights from prior research and theory. In particular, we highlighted issues that did not appear to fit with past scholarship for further investigation. This process was iterative throughout the research and ended when we believed we had generated a plausible and consistent fit between our research questions, data, and theory.

In the next section, we identify the entrepreneurs in our case, which consisted of the individuals affiliated with REDF. We then outline the steps involved in these actors' decision to develop a new accounting methodology, including how REDF staff sought to develop an infrastructure that could produce numbers to convince sceptical

stakeholders of the value of social enterprises. Figure 1 provides an overview of the process.

[Figure 1 here]

Findings

The value of social enterprise

Social enterprises are organizations that pursue a social mission while relying on commercial activities that sustain their operations (Mair, 2010; Battilana & Lee, 2014). While organisations pursuing both a social and economic purpose have existed in one form or another for some time, the category of social enterprise became prominent in the 1980s and 1990s, following a decline in government funding of nonprofits in the US and UK and the turn to a neoliberal logic that embraced market-solutions to social problems (Kerlin, 2006). Emerging out of the nonprofit sector in the 1990s, social enterprises attempt to employ market methods in order to ensure clients' equitable participation in the economy while at the same time relying on sales revenue (rather than grants or donations) for income (Barman, 2016).[1]

The entrepreneurs in our case consisted of those individuals and organizations affiliated with REDF, a grant-giving nonprofit organization among the first in the United States to fund and promote social enterprises as a new organizational form to solve the social problem of chronic homelessness. The origins of REDF can be traced to the work of the Roberts Foundation, a private family foundation in San Francisco formed in 1986 by George Roberts – the co-founder of the global leverage buyout firm,

[1] Given our focus on the specific case of REDF and SROI, we do not elaborate the broader history and events related to the emergence of the category of social enterprise. For further information, see, for example, Battilana and Lee (2014) and Barman (2016).

Kohlberg Kravis Roberts & Co – and his wife, Leanne Roberts. In 1989, the foundation moved to centre around George Roberts' commitment to a 'free enterprise approach to homelessness' by giving grants to Bay Area nonprofits (Emerson & Twersky, 1996, p. i). In 1997, the Roberts Foundation decided to emphasize the efforts of social enterprises to address homelessness in the Bay Area by creating a new foundation: The Roberts Enterprise Development Fund ('REDF'). The actors involved defined a social enterprise as 'a revenue generating venture founded to create economic opportunities for very low-income individuals, while simultaneously operating with reference to the financial bottom-line' (Emerson & Twersky, 1996).

The Roberts Foundation supported social enterprise as a new organizational form for both social and economic reasons. First, by providing clients with a combination of paid services, training, and long-term employment, social enterprises were perceived by REDF staff to best ensure that individuals would gain the skills required to obtain meaningful and permanent employment in the labour market (Emerson & Twersky, 1996; REDF, 2001). Second, social enterprises were expected to produce enough profit to be self-financing by selling products and services, as opposed to the uncertain, short term support upon which foundations or government agencies were reliant (Emerson et al., 1998; Tuan & Emerson, 2000; Tuan, 2002).

As part of their championing of this new organizational form, REDF staff sought to convince other stakeholders, in particular The Roberts Foundation, that the social enterprise model could effectively assist the homeless and be economically viable. REDF did so by not relying only on the rhetorical framing of the dual economic and social value of social enterprises but also by generating representations that support their case. Their motivation to provide this 'objective information' (Suddaby & Greenwood, 2005, p. 36) related to the staff's belief that there had 'been little evidence'

social enterprises could succeed (Tuan & Emerson, 2000), given that 'community economic development efforts focusing upon job creation by non-profit organizations had what many felt was an extremely poor track record' (Emerson & Twersky, 1996, p. 1). As a consequence, while REDF staff saw the value of social enterprises, they felt that audiences, including other funders and organizations involved in the problem of homelessness in the area, would be sceptical given the lack of existing proof of this new organizational form's success in providing a financially sustainable way to solve the problem of chronic homelessness.

Lack of appropriate accounting methods to demonstrate value

The precise challenge for REDF staff was to measure the value of social enterprises both in terms of their financial sustainability and in terms of their ability to provide meaningful economic opportunities to clients who were chronically unemployed (Tuan & Emerson, 2000). As Melissa, who worked at REDF at the time, recalled:

> And the big question was, all right, if we think that nonprofits [who own social enterprises] run the most successful potential strategy, can we actually demonstrate that that's true? From a financial standpoint—are they sustainable businesses? And then from a social standpoint, once that individual's hired and keeping with these businesses, are they really improving their lives?

REDF also believed that demonstrating value was important because 'many of the returns created by social purpose enterprises (and many tax-exempt nonprofit organizations) go undocumented. They are therefore largely under-appreciated by practitioners, funders, and policy makers' (Emerson & Cabaj, 2000, p. 10).

Methods that philanthropic funders typically used to gauge the worth of nonprofit organizations at the time were deemed inadequate by REDF to demonstrate the value of social enterprises (Emerson et al., 1998; Emerson et al., 2000). Jared, a

senior executive at REDF at the time who had worked as director of a youth services nonprofit, commented:

> The fact is that in the non-profit sector at that time [1990s], if you had a program officer do a walk-through and you connected well and you could kind of schmooze the program office, you stood a pretty good chance of getting a grant [...] But, that was not connected to your performance. It was a question of accountability for expenditure, not for impact.

REDF staff criticized methodologies like the 'walk-through' which typically employed qualitative, anecdotal information and relied on inter-personal connections as part of the value assessment. REDF staff regarded this approach to demonstrating the value of social enterprise as deficient because it did not relate the activities of the non-profit to their 'performance' or their 'impact' – their ability to effect social change for their clients (Emerson & Twersky, 1996). In effect, the prevailing evaluation norms and routines in the non-profit sector, such as the walk-through, focused on an organization's expenditure and activities and did not provide or prioritise information on its performance or impact.

In addition, REDF staff also viewed the data produced by funded social enterprises as inadequate and lacking comparability. Left to themselves, REDF soon realized that nonprofits collected 'little reliable data on outputs (such as number of enterprise employees), let alone the outcomes in those people's lives' for their social enterprises (Tuan, 2004, p. 109). Sara, a long-time REDF staff member, recalled how her colleague expressed that the data from the funded nonprofits 'wasn't terribly rigorous, and some of it he found downright contradictory. And so he got very frustrated about the lack of consistency, standardization, rigor in reporting.' This frustration stems from the proposed value of social enterprise not being reflected in the existing information systems being used in non-profit organisations (c.f. Hopwood,

1987; Power, 2015), with REDF's vision for social enterprises thus being seen as difficult to demonstrate because appropriate evaluation routines had yet to materialise (c.f. Garud et al., 2014). Given the perceived inability of existing accounting methodologies in the nonprofit sector to generate valid data to demonstrate the dual social and economic benefits of social enterprises, REDF staff members decided that entrepreneurial innovation was called for in the form of developing a new accounting methodology (Emerson et al., 2000).

Imagining: the challenge of resonating with stakeholders' expectations

Members of REDF were keenly aware that the success of their effort to promote social enterprises relied on gaining support for this innovative form of organisation from a broader set of stakeholders. One staff member recounted that the question REDF faced was: '[Can we] demonstrate it to ourselves, to George [Roberts], and to the field?' This quote highlights the perceived necessity among REDF staff members to demonstrate the viability of social enterprises as financially sustainable providers of economic opportunities to the homeless – to 'the field.'

One critical stakeholder was REDF's key resource provider, George Roberts, who had first espoused the foundation's mission of providing economic development opportunities for the homeless. Roberts, in spite of being a strong supporter of the cause of social enterprises, was at a loss when it came to capturing their performance. As a long-time staff member recalled: 'we had our funder, George Roberts, who kept asking, "Well, how do I know that something good is happening from this? How do I know?"' REDF staff also viewed government agencies as a potential funder of social enterprises (Emerson et al., 1998; Gair, 2009). At the time, social enterprises were considered a new means by which a charity could generate sustainable financial support and provide assistance to disadvantaged populations. Federal and local governments were engaging

in the marketization of welfare services as part of a broader privatization of the public sector, increasingly turning to charities and for-profit firms to deliver government-funded social service programs. Thus, REDF hoped to highlight to government agencies as stakeholders the capacity of social enterprises to deliver publicly funded services to address the problem of homelessness. When asked to recount the origins of SROI, a senior executive at the time outlined, 'I thought, "Who's actually the market for this information?" And I thought, "I bet government agencies are the best market."' Also, in this case the innovators merely guessed that government agencies would be interested, but had to imagine what accounting methods may be used to capture and communicate the value of social enterprises to the government (Emerson et al., 2000). Finally, REDF believed other charitable foundations with a mission to end homelessness could be convinced of the merit of social enterprise (REDF, 2001; Gair, 2002). In summary, although it was relatively straightforward for REDF to identify its relevant stakeholders, far more challenging was imagining how to communicate persuasively the benefits of social enterprises, particularly as stakeholders, like George Roberts, did not necessarily know what information about the social enterprise model they would find plausible and credible (c.f. Garud et al., 2014).

Beginning in 1997, REDF staff sought to design a new infrastructure that would align with stakeholders' configurations of value. To do so, they imaginatively generated the contours of a future accounting method that they believed would resonate with stakeholders (c.f. Garud et al., 2014; Emirbayer & Mische, 1998). In particular, REDF staff imagined that current and potential funders of social enterprises expected to see value expressed as investment returns when considering the impact of their philanthropic support (Emerson et al., 1998) rather than existing approaches like the 'walk-through' focused on qualitative, anecdotal information. As such, the goal for

REDF was to appeal to stakeholders by demonstrating that a 'dollar invested in the social mission of a nonprofit today generates future economic and social returns in excess of the initial value of that dollar' (Emerson et al., 2000, p. 135). Recalling a meeting held with Roberts in 1995, Jared, the head of REDF stated:

> it dawned on me that he [Roberts] really liked what he saw, but he wasn't really clear on what he had bought, right? At that point, he had paid enough attention to this very topic - how to roll this together and assess not only whether or not you're really, at the street level, having the impact, but also, as an investor, as a philanthropic investor, you're having the impact.

This quote shows more precisely REDF's challenge in demonstrating value. For one, financial investors traditionally have judged the success of their investments by whether they produced monetary gain. Accordingly, REDF imagined that social enterprises could only be deemed successful if it could be demonstrated that the benefits – both economic and social – were monetized and exceeded the value of economic resources invested. Critically, REDF's main funder, whose background was in financial investment, could not fully grasp how useful the activities of REDF's funded social enterprises were. This was because the language in which the results were initially presented to him by REDF staff was in the traditional non-profit model of number of outputs per organization – the number of services provided or clients aided – without a clear connection to monetized benefits, unlike the financial discourse of return on investment.

Similarly, drawing from their interactions with charitable foundations in the Bay Area and from broader professional discourse (Letts et al., 1997), REDF staff imagined that many foundations, especially other venture philanthropists, also framed the activity of their charitable donations through the metaphor of financial investment. 'These new donors speak not only of "measurement" and "outcome funding," but rather of "social

return" and the ability to document the "added-value" of their philanthropic investments,"' stated one REDF publication at the time (Emerson et al., 2000, p. 132). Given these imagined expectations of funders, REDF began the process of constructing an infrastructure that would help to produce indications of value-generation that could plausibly and credibly convey the characteristics and benefits of social enterprises to stakeholders (c.f. Garud et al., 2014).

Mobilising resources: the challenge of developing an infrastructure

Aiming to develop an infrastructure that would collect relevant information regarding the financial viability and social impact of social enterprises, the entrepreneurs at REDF faced a significant challenge of presenting the social and economic value of social enterprises. In the nonprofit sector such information was not commonly collected in the mid 1990s and REDF witnessed a lack of suitable information systems, as well as an absence of appropriate accounting methodologies. Jared explained:

> Do you have a management information system in place that allows you to understand whether or not you're actually doing that [what you intend to do]...we knew that until we answer that question and these groups [the portfolio members] had good reporting systems in place, any discussion about impact and valuation or returns was kind of stupid because it was a garbage in - garbage out kind of thing.

The quote indicates that the dual economic and social value of the social enterprises could not be demonstrated until suitable data collection routines were constructed and made operational, as the future demonstration of value depended on such data (Emerson et al., 1998). In particular, there was little point in talking about 'return' before acceptable data to depict the quantities of inputs and outputs were available. For REDF staff, given their expertise and understanding of financial notions of value and valuation, the development of an accounting methodology required, first, the collection

of suitable data. A new reporting system was needed because existing data was not suitable for demonstrating value in ways that would resonate with the expectations of stakeholders. Sara, another REDF employee, who had spent many years running her own business prior to moving to the non-profit sector, also echoed this understanding when she commented 'what we need in the social sector is [...] the equivalent of double-entry bookkeeping.'

To that end, REDF staff focused on developing an information system to avoid the 'garbage in-garbage out' view of existing nonprofit reporting methods. As such, at first, beginning in 1997, this process involved REDF requesting the collection of each social enterprise's financial data according to a set format from each nonprofit's portfolio members on a monthly basis. Draft documents from the time show that these reports contained financial categories, such as 'revenue', 'expendables', a comparison of 'planned vs. actual sales', along with a calculation of monthly 'net profit.' The requirements to collect and report data using such a framework reflected the 'for profit' focus of running businesses, as well as the way in which the information was reported in similarly formatted spreadsheets and tables for each social enterprise run by a non-profit organization.

Collecting such financial data from the portfolio members, however, was difficult because the data REDF sought was not readily available at that time. One challenge was that – although owners of for-profit social enterprises – nonprofits were employing fund accounting (a method that tracks how resources from a funder are distributed by a non-profit in order to demonstrate accountability), not business accounting and so were not tracking the financial performance of their social enterprises (Tuan, 2004). Besides employing fund accounting, another problem was that all assets of a social enterprise were regarded as assets of its managing non-profit organization –

they were not viewed as separate, stand-alone businesses. For REDF, this was problematic because in order to incorporate into the infrastructure a financial value of a social enterprises, it was necessary to establish a measurement of the financial performance for each social enterprise as a separate entity.

To do this, REDF decided to install a new information system that generated systematic economic data on a monthly basis for each social enterprise, as well as collecting additional customizable indicators (Emerson et al., 1998). The system necessitated reporting on a number of business and financial indicators including gross sales monthly, gross sales year-to-date, gross profit monthly, and gross profit year-to-date, among others (see Appendix D). To assist the nonprofits in collecting and recording the right type of data in the new system involved REDF's expenditure of the additional resource of employing an intern with a MBA to work with non-profits. As a later publication outlines this 'business consultant spent hours each week with enterprise managers and nonprofit controllers teaching them about income statement line items, formats, and the value of cash flow projections' (Tuan, 2004, p. 115). Nonetheless, despite REDF's outlay on staff with knowledge and expertise to guide the data collection, REDF did early on experience challenges in gathering valid data from its portfolio of members given their lack of knowledge with business accounting (Twersky, 2002). Proprietary REDF documents from 1999, for example, show that efforts to gather consistent business and financial indicators from nonprofits about their social enterprises often did not succeed: the scanned Excel sheets show that data was not 'current' or key cells left empty, and handwritten notes by REDF staff of 'missing again!' were common.

As REDF's intended infrastructure was to generate information that would capture and communicate both the financial and social value of a social enterprise, staff

also developed a new reporting system in 1999 to track systematically the 'social' benefits resulting for individuals employed by social enterprises. At the beginning, the development of this reporting system, which came to be called OASIS ('Ongoing Assessment of Social Impacts'), a web-based distributed 'social management information system,' focused on tracking those clients employed by each social enterprise over the previous two-year period (Twersky, 2002). As explained by Melissa, this 'took quite some time,' not only because the 'infrastructure in our non-profit partners was limited' such that systematic data was not currently available, but also because the people employed could be transient, where they could be 'hired one day, and then a week later, they would resign or disappear.'

REDF's ambitions for using OASIS to demonstrate the social value of social enterprise were much broader than counting the number of employees hired by member nonprofits' social enterprises. They endeavoured to create a system to track the 'social impact indicators' (the key improvements in clients that followed after social enterprise employment) as they related to each employee on a systematic basis (Tuan, 2004). The resulting OASIS system called for collecting and inputting of up to forty indicators of seven key outcomes (clients' job stability, income level, housing stability, self-esteem, social support system, and their usage of various social services) for all individuals employed by each portfolio member; each employee would complete a survey once every six months for two years (Twersky, 2002, p. 13). This requirement was a hugely expensive and time-consuming exercise, involving staff at REDF, the portfolio members of social enterprises, and the hiring of teams of outside consultants, enabled by the resources REDF had at the time (Tuan, 2004). Melissa outlined the operation of OASIS as follows:

> We had this team of researchers at [external consulting firm], like maybe five of them, trained in different languages and skilled at finding out different types of information from the public health and psychiatric departments on how to track some of these people, to be able to find them, six, twelve, eighteen, twenty-four months later.

This quote illustrates how REDF's employment of OASIS required the use of highly skilled people, able to track down the individuals that were or had been employed by the portfolio members for a period of 24 months. As was the case with the collection of financial data, this required significant resources to employ the appropriate expertise and labour.

It was only once REDF staff believed that the collected data on financial and social performance could not be described as 'garbage in' were they then willing to consider precisely how to demonstrate the value of social enterprises to stakeholders via a particular formula. In other words, the development of the data collection and reporting systems was never viewed as end in itself, but as a step in the larger entrepreneurial endeavour of creating an accounting methodology to provide an overall demonstration of the value of social enterprises.

Reconfiguring: the challenge of modifying the accounting method and the imagined value of the innovation

The next phase in creating the infrastructure was the development and operationalization of the SROI calculation to represent the value of REDF's portfolio of social enterprises. To be used by each of REDF's social enterprises on an annual basis, this formula calculated a ratio between the amount of financial resources invested in a social enterprise and a monetized estimate of the amount of economic and social value produced by the social enterprise. The benefits a social enterprise generates for its clients, in the form of economic profit and social benefit, were to be estimated over a

specific time horizon (e.g., 7 years) and then, employing discounted cash flow techniques, discounted back to their present value (REDF, 2001).

The shape the SROI formula took was affected significantly by the stakeholders' imagined configurations of value and by the methodologies of valuation that were deemed valid by REDF staff and affiliated experts and consultants. Jared, the head of REDF, commented:

> In conversations with George [Roberts], we'd talk about...you know, I'd be learning about discounted cash flow and financial analysis and that kind of stuff and we would start, just kind of, you know, bullshitting about, 'well, how would you think about this from a social perspective? What are the equivalent metrics that you would use?

To resolve this question, REDF staff sought to apply an existing and accepted calculative routine: return on investment (Gair, 2002). Jared stated in an interview 'out my finance work [during the MBA], I was really intrigued by this idea [...] "what does the social return on investment look like?"' In other words, REDF's effort to demonstrate the dual economic and social value of social enterprises to key stakeholders borrowed the form of an existing finance formula, but expanded its content beyond financial value to incorporate the social value of social enterprises. However, the application of a return on investment schema, drawn from the field of financial investment to the field of social enterprise, did not proceed in a straightforward linear fashion with the imagined formula simply translated into the social enterprise setting. In particular, the entrepreneurs encountered two problems in trying to bring about their desired method for calculating SROI. The first problem concerned the monetisation of social value and the second problem revolved around deriving a measure of risk, or what REDF termed 'social beta'. Both these instances show how difficulties with building the infrastructure required reconfiguring not only the SROI methodology itself but also the imagined value the entrepreneurs at REDF believed social enterprises could

generate.

Calculating social value

The use of the return on investment formula required REDF to monetize both investments in the social enterprises' operations (the denominator in the ratio calculation) and the resulting economic and social benefits (the numerator in the ratio calculation). In its SROI methodology, REDF incorporated a measure of social enterprises' economic value, defined as the 'present value of excess cash generated by enterprise's business operations' (REDF, 2001, p. 17). Enabling this calculation was REDF's reconstruction of financial accounting data (as noted above) in order to separate the social enterprises' assets and cash flows from the other activities of the nonprofit organizations.

The entrepreneurs sought to incorporate into the infrastructure a measure to indicate the value of positive changes in the lives of social enterprises' clients, who ideally were no longer homeless and unemployed. In a public document accompanying REDF's articulation of SROI, REDF labelled this individual-level change as 'social value,' which was created when 'resources, inputs, processes or policies are combined to generate improvements in the lives of individuals or society as a whole' (REDF, 2001, p. 12). Examples of the types of social value produced by social enterprises included individuals' increased housing stability, improved self-esteem, and the 'psychological impact on an individual whose family has moved from welfare to work' (Gair, 2002, p. 2).

However, while REDF invested significant time and effort to collect individual outcome data in OASIS (as noted above), ultimately these benefits were not included in the calculation of SROI. The entrepreneurs' decision to omit this data followed the realization that social value, although being at the core of social enterprises, was

deemed to encompass a wide variety of individual-level benefits, many of which were feared would be impossible to measure with the rigor involved in the measure of economic value. Most prominently, the benefits generated for individuals from their engagement with social enterprises were seen to suffer from two problems: they were hard to quantify and difficult to monetize (Emerson et al., 2000; REDF, 2001). For example, individuals' accounts of desired psychological and social changes in their lives were viewed by REDF as inherently subjective in nature, difficult to agree upon, and believed to be better captured by the use of narrative rather than numbers (Gair, 2009). Further, many of the changes produced by social enterprises in clients' lives were 'hard to translate into dollars' (Gair, 2002, p. 3) as no existing estimates were available, and so 'no matter how positive, could not be reliably monetized' (Gair, 2009, p. 5). As Sara stated, REDF's approach was 'to be conservative and only using quantifiable, monetizable data,' which meant that 'if something could not be monetized…it really didn't get counted into that number [SROI].' For REDF, this situation made it impossible to incorporate social value into the calculation of SROI as the formula required all inputs be expressed in monetary terms. As a consequence, a measure of social enterprise's social value (as defined as benefits to clients), a core claimed benefit of social enterprises, was difficult to capture in financial terms, and so ended up being excluded from the formula constituting SROI. More generally, this shows how entrepreneurs may imagine benefits that prove to be difficult to demonstrate as they gradually materialise their proposed accounting method (c.f. Garud et al., 2014).

Instead, REDF reconfigured SROI by employing another measure of the value of social enterprises in solving the problem of homelessness, one that it labelled 'socio-economic value' (REDF, 2001). A social enterprise creates socio-economic value 'by making use of resources, inputs, or processes; increasing the value of these inputs, and

by then generating cost savings for the public system' (Emerson et al., 2000, p. 138). Unlike the outcomes for social value that had no readily available and reliable monetized data, socio-economic value was operationalized using existing government data that provided estimates of the monetary savings produced by social enterprises for state and federal governments. These monetary savings included clients decreased net use of government services, such as health care, food stamps, legal services, prison, and food banks, and the government revenue gained in the form of taxes paid by social enterprise clients who had gained employment. In other words, the social benefits produced by social enterprises' work with clients would be measured at the aggregate, community-wide or even societal level, rather than at the individual level. In this way, the SROI formula and the imagined benefits of social enterprise were both reconfigured – SROI included estimates of governmental cost savings but excluded estimates of individual client benefits – and instead of being seen primarily as a benefit to individual clients of the social enterprise, social value was reimagined as socio-economic value to focus on 'community benefit' (Gair, 2009, p. 16), a more amorphous improvement of general social welfare brought about by the activities of social enterprises.

Calculating Social Beta

A similar process was evident in other parts of the proposed SROI methodology, particularly in the attempts made to incorporate an element of risk into the calculation of social return. The entrepreneurs at REDF were motivated by the goal of demonstrating that investments in social enterprises can be regarded as an acceptable form of investment, as they imagined that REDF's funders, whose backgrounds were in financial investments, would be amenable to such a demonstration of social value. In particular, the entrepreneurs envisioned that they would be able to present social value generated by social enterprises as comparable to a financial return on investment, and as

such, an acceptable forecast of investment in a social enterprise would include a measure of the risk involved, as well as a measure of return. In the social enterprise context, risk for the potential investor related to the way ‘certain populations are more difficult to serve than others...and often carry greater risk of ‘failure’ or face compounded challenges’ (Emerson et al., 2000, p. 149). The risk measure the entrepreneurs in REDF envisioned and attempted to developed was termed ‘Social Beta’, borrowing the concept of beta from The Capital Asset Pricing Model of financial economics (Sharpe, 1964; Lintner, 1965). The entrepreneurs argued that Social Beta would enable existing and prospective investors to compare across different organisations that cater to differing beneficiaries and social problems (Tuan & Emerson, 2000).

To obtain the relevant figures necessary for calculating Social Beta, the entrepreneurs started to develop a complex set of procedures for data collection that the social enterprises were asked to follow. Individual client data (which was collected by the OASIS information system) were to be fed into a calculation procedure, which was comprised of mapping the data onto numerically weighted degrees of risk (Emerson et al., 2000, p. 153). However, as the entrepreneurs began to collect actual data, they gradually realised they were facing significant challenges, as Sara describes:

> it’s hard to quantify [Social Beta] on several dimensions, one of them being that it’s hard to apply the way that the capital markets and the for-profit sector uses beta, because it’s a statistical number around standard deviation of failure. And when you’ve got a sample size of twenty, twenty-three [social enterprises], you never have a good statistical number. And then two, you don’t have as much definition with consistency around what a failure was.

REDF's 'portfolio' entailed a limitation because of the relatively small number of social enterprises, which was seen to limit the statistical validity of the proposed social beta calculation.

Even more challenging was the differences between how risk is conceptualised in financial markets and in the social enterprise context, which the Social Beta measure conflated, leading to perverse measurements:

> If, for example, an enterprise with an excellent management team and a highly profitable business (high net income) serves an extremely high-risk group, it would have a low Social Beta value that did not capture the riskiness of the employee population (REDF, 2001, p. 78).

Indeed, many of the social enterprises in REDF's portfolio were established specifically to provide employment opportunities to 'high-risk' individuals. As such, as they delved into the details of putting together the infrastructure to calculate social beta, the entrepreneurs realised that not only would it be difficult to obtain the necessary quantity of data but, more critically, they ran the risk of conceptualising wrongly the nature of the value social enterprises generated through casting more challenging populations as a 'failure'. As with case of social value, the imagined value of social enterprises turned out to be difficult to demonstrate with the proposed accounting method (c.f. Garud et al., 2014), with REDF moving away from an SROI methodology that would formally relate a measure of risk and return in the same way as in financial markets.

These realisations motivated the entrepreneurs to once again reconfigure the SROI methodology, using an alternative measure to Social Beta, termed the 'Employment Risk Assessment' (ERA) (see Appendix E). Unlike the monetary and forecasting qualities of Social Beta, ERA provided a set of retrospective descriptive statistics, concerning aspects of the target population of each social enterprise (e.g., % convicted of a crime), which were already collected and available through the OASIS

system. These statistics, the entrepreneurs explain, ‘indicate the degree of difficulty of finding and/or maintaining employment for people with a given set of social risk factors’ (REDF, 2001, p. 79) and aim to indicate to the reader of the report the value generated by the social enterprise by employing them (Appendix E shows the ERA alongside the presentation of the SROI calculations). To stress, contrary to the concept of social beta whereby high risk would demand higher return, a higher degree of risk in the ERA was not perceived as a problem, but as an indication of a successful social enterprise, whereby ‘enterprises serving ‘more difficult’ populations with more complex challenges and possibly higher possibilities of ‘failing’ can be credited for undertaking a more difficult task’ (REDF, 2001, p. 82). That is, the attempt to realise their imagined risk-weighted calculation of SROI led the entrepreneurs to the conclusion that the value generated by social enterprises and its means of calculation both needed to be reconfigured. Instead of envisioning a social enterprise as a producer of liquid return-yielding risky assets, assets whose qualities can be forecasted effectively in advance, they re-imagined the value generated by the social enterprise according to their ability to employ ‘risky’ individuals, abandoning efforts to calculate social beta and instead incorporating a set of descriptive statistics about client populations into the SROI methodology.

Discussion

Our goal in this paper was to examine how entrepreneurs developed a new accounting methodology that helps to gain the support of stakeholders by demonstrating the value of an innovation. We see that entrepreneurs’ efforts to demonstrate the value of an innovation do not consist only of the use of rhetorical strategies (e.g., David et al., 2013; Maguire et al., 2004; Garud et al., 2014) but also rely on the development of an accounting methodology. In this process, entrepreneurs can demonstrate the value of an

innovation by generating numerical information that is presented as indicative of the innovation's benefits (Dansou & Langley, 2013). To achieve this, they develop, establish and maintain an accounting methodology to demonstrate the success of the proposed innovation. Our analysis indicates that developing a new accounting methodology was shaped by entrepreneurs' realization of key stakeholders' scepticism about the proposed innovation and the inadequacy of existing accounting methodologies to produce appropriate data, which then presented entrepreneurs with a variety of obstacles and challenges to overcome in order to demonstrate the value of their innovation. Building from our empirical analysis, we identify three different (and interrelated) dimension of activity in which entrepreneurs engage in developing a new (rather than deploying an existing) accounting methodology to demonstrate the value of an innovation (see Table 1 and Figure 1).

First, designing a new accounting method that helps to demonstrate the value of an innovation is predicated on imagining successfully what types of numbers would be regarded as persuasive by the stakeholders the entrepreneurs wish to convince (c.f. Garud et al., 2014; Emirbayer & Mische, 1998). Imagining what may be persuasive is vital as the stakeholders themselves, as our case indicates, may only have a general (or limited) idea about what type of information about the, yet non-existent, innovation they may find persuasive. Similarly, as entrepreneurs are seeking to demonstrate the value of an innovation rather than existing idea, product or service, prior experience with stakeholders can only offer insights of a more general nature rather than specific insights related to the particular innovation proposed. In existing research, the challenge is for actors to frame and reframe accounting numbers generated using existing, acceptable methods, as they discuss with stakeholders (or draw on similar past encounters) their proposed arguments and present their merits (e.g., Goretzki et al.,

2018), or to work out how to operationalise existing templates in ways that stakeholders would find credible (Power, 2015). In contrast, to demonstrate the value of a yet-unrealised innovation, entrepreneurs have limited resource to past encounters or existing accounting methods and templates, and are thus presented with the challenge of imagining the very kinds of numbers or templates they believe stakeholders would find persuasive.

Second, our empirical examination reveals that the generation of the would-be persuasive numbers requires the mobilisation of resources (e.g., expertise, money and time) critical to the development of the infrastructure. Given its focus on the use of rhetoric, existing research on entrepreneurial storytelling has ignored or is largely silent on the scope or significance of this challenge (e.g., Garud et al., 2014; Manning & Bejarano, 2017). But as we saw with SROI, moving from an imagined idea of the benefits of social enterprise to the ability to produce information of such benefits was not easy. As no established procedures were available, REDF had to painstakingly create this information, requiring both the reconstruction of existing financial data and the establishment of a new information system in the form of OASIS. This creation process was enabled through the mobilisation of a variety of resources, such as REDF staff's own expertise and experience in developing information systems, as well as outside help in the form of a research fellow and a team of external consultants. This resonates with prior research on the development of new accounting methodologies, where moving from an idea to its actual representation or calculation is a non-trivial endeavour (Hopwood, 1987; Briers & Chua, 2001; Chua, 1995; Andon et al., 2007; Power, 2015). This strongly contrasts with situations where actors draw upon existing accounting methods – their challenge is primarily related to framing and interpreting the numbers produced by these existing accounting methods. In entrepreneurial settings,

like those faced by REDF, the challenge is primarily related to mobilising resources to operationalise their accounting methodology, before they can even begin to offer their interpretation regarding the benefits of social enterprises using these numbers.

Third, the process of designing the new accounting method requires ongoing reconfiguration to ensure the purported benefits of the innovation can actually be demonstrated by the new accounting method. As with the development of other accounting methodologies, the process for developing SROI was not a simple translation from an imagined methodology to realised calculations, but proceeded as an iterative process of experimentation and trial and error (Briers & Chua, 2001; Chua, 1995; Andon et al., 2007; Jones & Dugdale, 2002; Cooper et al., 2017). In particular, Power (2015) notes how in this process actors can discover the meaning of ambiguous objects as they work to bring new accountings into being, such as the ambiguous object of research impact being discovered and materialized through the process of writing successive drafts of impact case studies. Similarly, actors at REDF discovered more about the purported benefits of social enterprises as they worked to bring the SROI methodology into being.

But our case shows how objects may not only be ambiguous – as initially formulated, they can also turn out to be difficult to materialise, where constraints on time, money and expertise can make it difficult for entrepreneurs to bring about the accounting methodology they imagine stakeholders will find persuasive. For example, despite considerable efforts, entrepreneurs at REDF could not put in place the infrastructure in order for the SROI methodology to produce their imagined calculation of the risk-adjusted social return of social enterprises. As such, the process in our setting is akin to an engineering endeavour, where designers develop a product or service for an unknown set of customers and, as a result, the shape of the final product is an outcome

of an iterative and potentially costly process of trial and error. For example, as the entrepreneurs put into concrete form the general ideas behind the imagined accounting methodology, discrepancies can emerge between the espoused value of an innovation and the value that can actually be demonstrated through the realised accounting methodology. This may be because the realised accounting methodology cannot demonstrate fully the value of the innovation (e.g., SROI ratios not incorporating individual-level benefits for clients) and/or does so in ways that are potentially less likely to resonate with stakeholders (e.g., SROI ratios that do not provide a risk adjusted measure of return). Such discrepancies are clearly problematic for the entrepreneurs as, depending on scale and significance, they may prevent them from demonstrating the benefits of the innovation in ways stakeholders find persuasive. This, in turn, can inhibit stakeholders' ability to understand the characteristics and benefits of the innovation, potentially leading to disappointments and frustrations that can threaten the ongoing legitimacy of the entrepreneurial endeavour (Garud et al., 2014).

Although not observed in our study, one avenue for addressing such discrepancies would be to obtain more time, money and/or expertise to overcome the problems in putting the infrastructure in place. Whether or not this avenue is likely to prove productive depends on the resources available in particular contexts, but even in the most unrestrictive contexts, there are likely to be hard constraints on the time, money and/or expertise entrepreneurs can mobilise. Another avenue, and the one observed in our study, is for entrepreneurs to face the challenge of having to reconfigure the accounting methodology *and* the espoused value the innovation is expected to generate. That is, the process of developing new accountings can involve not only discovering more about ambiguous objects (Power, 2015), but can also involve *transforming* the nature of the object to be accounted for. As the examples of

calculating social value and social beta indicate, REDF's conception of social value, before detailed work on realising the methodology took place, centred on the generation of individual-level benefits for beneficiaries, moderated by the forecasted riskiness involved in serving some client populations compared to others. However, when it was realised that putting in place the infrastructure to monetise individual level social benefits and the aggregate riskiness of beneficiary cohorts was difficult, the entrepreneurs at REDF reconfigured their conception of the social value generated by social enterprises (e.g. to focus on community rather than individual-level benefits) and reconfigured the SROI methodology (e.g., to focus on measures of governmental cost savings and a variety of retrospective descriptive statistics on the riskiness of different client cohorts). Collectively, the examples of calculating social value and social beta not only show the reconfiguration challenge involved as entrepreneurs attempt to put in place the necessary infrastructure to produce their accounting methodology, but also how the imagined value of the innovation can also be reconfigured in line with the realisation of the constraints of demonstrating it.

Conclusion

Our study makes three contributions. First, rather than seeking to enrol or rely on existing numbers (e.g., Kenno & Free, 2018; Goretzki et al., 2018; Kadous et al., 2005; Englund & Gerdin, 2015), we focus on how actors aim to develop a new accounting methodology aimed at generating persuasive numbers. The focus of the literature on the framing of numbers refers to a discussion between concrete actors about existing accounting methods and numbers (e.g., Kenno & Free, 2018; Goretzki et al., 2018; Kadous et al., 2005; Englund & Gerdin, 2015). We show how this process is qualitatively different from repurposing existing numbers so as to help in generating persuasive arguments, identifying and analysing three processes engaged in by

entrepreneurs as they seek to demonstrate the value of an innovation using an accounting methodology. Specifically, we showed how the process by which persuasive accounting numbers come about revolves around the entrepreneurs (1) imagining the expectations of their stakeholders (2) putting in place the necessary infrastructure through which the numbers could be generated and (3) iteratively reconfiguring the accounting methodology *and* the espoused value the innovation is expected to generate. Overall, this process we identify and analyse is not merely a rhetorical process of framing existing numbers, but one that comprises an ongoing interaction between the development of persuasive arguments and the concrete material actions needed to bring the proposed accounting methodology into being. At the core of this iterative process is the enabling (or constraining) role of infrastructure (c.f., Power, 2015), where the development of a persuasive narrative requires the creation of the infrastructure that can generate the desired numbers. Beyond our specific setting of social enterprise and SROI, this process may resonate more broadly with situations where actors seek to develop new accounting methods to demonstrate the value or importance of particular activities or outcomes, such as blended value (e.g., Nicholls, 2009), sustainability (e.g., Contrafatto, 2014), or social impact (e.g., Mook, 2013).

Second, we contribute to the literature on entrepreneurial storytelling by developing understanding of the role of numbers in generating persuasive stories about the benefits of innovations. Despite numerous cases where entrepreneurs develop new numbers in order to persuade stakeholders (e.g., Déjean et al., 2004; Etzion & Ferraro, 2010; Bermiss et al., 2013; Franks & Vanclay, 2013, Aledo et al., 2015; Bates, 2009; McBain & Alsamawi, 2014), prior research has not identified the exact roles that numbers can play in entrepreneurs' attempts to demonstrate the value of their innovations to stakeholders (e.g., Lounsbury & Glynn, 2001; Martens et al., 2007;

Garud et al., 2014; Manning & Bejarano, 2017). We highlight how the challenges in mobilising numbers are different to those in relying only on rhetoric, which can lead entrepreneurs to offer revised stories because the proposed methodology for persuading stakeholders doesn't materialise as planned. This is important because prior research only focuses on how entrepreneurs offer revised stories where the entrepreneurial venture itself experiences disappointments (Garud et al., 2014). Our study indicates that entrepreneurs may also experience disappointments in realising the planned accounting methodology, thus identifying an additional explanation for why entrepreneurs may need to revise their entrepreneurial stories to gain legitimacy for their innovations (Garud et al., 2014). Importantly, this is not a case of entrepreneurs failing to develop numbers to support a pre-existing narrative (Garud et al., 2014) but instead a generative process whereby the entrepreneurs oscillate between the creation of projective stories (Emirbayer & Mische, 1998) and the trials and experiments involved in producing the numbers that can form part of a persuasive narrative.

Third, our focus on the emergence of new accounting methodologies as part of a broader entrepreneurial process contributes to recent analysis of how accounting begins (Power, 2015). In particular, it shows that when entrepreneurs are faced with situations where the value of their innovation is not compatible with or conveyed effectively by existing accounting methodologies, this can provide the motivation to begin the development of new accounting methodologies. As such, new accountings can begin not only as a response to the formation and elaboration of new objects at the field level (Power, 2015), but also as part of a more proactive process owing to entrepreneurial innovation at a localised level. In particular, our analysis necessitates a dimension of imagining as part of the innovative process, whereas Power (2015) emphasises compliance with higher-order principles that exist in the field. Our study also provides

detailed insight into how the phases in the emergence of new accounting forms may not simply unfold in a linear fashion, but influence each other dynamically and recursively over time (Power, 2015). Specifically, we show how difficulties in realising the accounting infrastructure can shape and potentially even lead to transformations in the formation of the objects to be accounted for. In this process, neither the infrastructure nor the relevant practices are regarded as stable (Power, 2015), as both can co-construct and potentially co-destruct one another as the new accountings evolve.

More broadly, the study focuses greater attention on the 'local laboratories' (Cooper et al., 2017, p. 1004) from which accounting innovations initially emerge and the related dynamics that shape their early formation, complementing research that focuses on how and why particular accounting innovations become popular and in widespread use (e.g., Miller, 1991; Jones & Dugdale, 2002; Cooper et al., 2017). We add to this literature by focusing directly on the earliest stages of newly emergent accountings (Hopwood, 1987) by examining one such 'local laboratory' where a new accounting methodology was imagined and initially put together. Better understanding of these early stages in the innovation process is important because the initial contours of the accounting innovation can persist long after it has left the local laboratory. For example, although SROI did indeed change as it spread and became popular outside of REDF (Hall et al., 2015), many of its initial features persisted, such as the monetisation of benefits and the calculation of a ratio of social return. Thus, analysing the conditions present at the inception stages of the innovation can provide us with more complete understanding of the emergence and spread of accounting innovations.

Acknowledgements

We thank the Associate Editor, Teemu Malmi, the two anonymous reviewers, and seminar participants at ESSEC Business School, Kings College London and University of Glasgow for very helpful comments.

References

Abbott, A. (1992). From causes to events notes on narrative positivism. *Sociological Methods & Research*, *20*(4): 428-455.

Aledo, A., García-Andreu, H., & Pinese, J. (2015). Using causal maps to support ex-post assessment of social impacts of dams. *Environmental Impact Assessment Review*, *55*, 84-97.

Andon, P., Baxter, J., & Chua, W. F. (2007). Accounting change as relational drifting: A field study of experiments with performance measurement. *Management Accounting Research*, *18*(2), 273-308.

Arvidson, M., & Lyon, F. (2014). Social impact measurement and non-profit organizations: Compliance, resistance, and promotion. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *25*(4), 869–86.

Arvidson, M., Lyon, F., McKay, S., & Moro, D. (2013). Valuing the social? The nature and controversies of measuring social return on investment (SROI). *Voluntary Sector Review*, *4*(1), 3–18.

Banerjee, A. V., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation. *American Economic Journal: Applied Economics*, *7*(1), 22-53.

Barman, E. (2016). *Caring Capitalism*. n.p.: Cambridge University Press.

Bates, W. (2009). Gross national happiness. *Asian-Pacific Economic Literature*, *23*(2), 1-16.

Battilana, J., & Lee, M. (2014). Advancing research on hybrid organizing – Insights from the study of social enterprises. *The Academy of Management Annals*, *8*(1), 397-441.

Bermiss, Y. S., Zajac, E. J., & King, B. G. (2013). Under construction: How commensuration and management fashion affect corporate reputation rankings. *Organization Science*, *25*(2), 591-608.

Briers, M., & Chua, W. F. (2001). The role of actor-networks and boundary objects in management accounting change: a field study of an implementation of activity-based costing. *Accounting, Organizations and Society*, *26*(3), 237-269.

Burns, J., & Baldvinsdottir, G. (2005). An institutional perspective of accountants' new roles – the interplay of contradictions and praxis. *European Accounting Review*, *14*(4), 725–757.

Busco, C., Riccaboni, A., & Scapens, R. W. (2006). Trust for accounting and accounting for trust. *Management Accounting Research*, 17(1), 11–41.

Christensen, M., & Skærbæk, P. (2007). Framing and overflowing of public sector accountability innovations: A comparative study of reporting practices. *Accounting, Auditing & Accountability Journal*, *20*(1), 101–132.

Chua, W. F. (1995). Experts, networks and inscriptions in the fabrication of accounting images: a story of the representation of three public hospitals. *Accounting, Organizations and Society*, *20*(2-3), 111-145.

Contrafatto, M. (2014). The institutionalization of social and environmental reporting: An Italian narrative. *Accounting, Organizations and Society*, *39*(6), 414-432.

Cooper, D. J., Ezzamel, M., & Qu, S. Q. (2017). Popularizing a management accounting idea: The case of the balanced scorecard. *Contemporary Accounting Research, 34*(2), 991-1025.

Dansou, K., & Langley, A. (2013). Institutional work and the notion of test. *Management, 15*(5), 503-527.

David, R., Sine, W. D., & Haveman, H. A. (2013). Seizing opportunity in emerging fields: how institutional entrepreneurs legitimated the professional form of management consulting. *Organization Science, 24*(2), 356-377.

Déjean, F., Gond, J. P., & Leca, B. (2004). Measuring the unmeasured: An institutional entrepreneur strategy in an emerging industry. *Human Relations, 57*(6), 741-764.

Emerson, J., & Cabaj, M. (2000). Social return on investment. *Making Waves, 11*(2), 10-14.

Emerson, J., & Twersky, F. (Eds.). (1996). New social entrepreneurs: The success, challenge and lessons of non-profit enterprise creation. *The Homeless Economic Fund, The Roberts Foundation*, 416.

Emerson, J., Tuan, M. T., Dutton, L., & Kessler, D. (1998). *The Roberts Enterprise development fund: Implementing a social venture capital approach to philanthropy.* Stanford University Graduate School of Business. S-E- 45, October.

Emerson, J., Wachowicz, J., & Chun, S. (2000). Social return on investment: Exploring aspects of value creation in the nonprofit sector. *The Box Set: Social Purpose Enterprises and Venture Philanthropy in the New Millennium, 2*, 130-173.

Emirbayer, M., & Mische, A. (1998). What is agency?. *American Journal of Sociology, 103*(4), 962-1023.

Englund, H., & Gerdin, J. (2015). Developing enabling performance measurement systems: on the interplay between numbers and operational knowledge. *European Accounting Review*, *24*(2), 277-303.

Espeland, W., & Sauder, M. (2007). Rankings and reactivity: How public measures recreate social worlds. *American Journal of Sociology, 113*(1), 1-40.

Etzion, D., & Ferraro, F. (2010). The role of analogy in the institutionalization of sustainability reporting. *Organization Science, 21*(5), 1092-1107.

Franks, D. M., & Vanclay, F. (2013). Social impact management plans: Innovation in corporate and public policy. *Environmental Impact Assessment Review, 43*, 40-48.

Gair, C. (2002). *A report from the good ship SROI.* San Francisco: The Roberts Foundation.

Gair, C. (2009). *SROI act II: A call to action for next generation SROI.* San Francisco: REDF.

Garud, R., Schildt, H. A., & Lant, T. K. (2014). Entrepreneurial storytelling, future expectations, and the paradox of legitimacy. *Organization Science*, *25*(5), 1479-1492.

Glaser, B. G., & Strauss, A. L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research.* Chicago: Aldine Pub. Co.

Goretzki, L., Mack, S., Messner, M., & Weber, J. (2018). Exploring the persuasiveness of accounting numbers in the framing of 'performance' – a micro-level analysis of performance review meetings. *European Accounting Review*, *27*(3), 495-525.

Hall, M., & Millo, Y. (2018). Choosing an accounting method to explain public policy: Social return on investment and UK non-profit sector policy. *European Accounting Review*, *27*(2), 339-361.

Hall, M., Millo, Y., & Barman, E. (2015). Who and what really counts? Stakeholder prioritization and accounting for social value. *Journal of Management Studies*, *52*(7), 907-934.

Hopwood, A. G. (1987). The archaeology of accounting systems. *Accounting, Organizations and Society*, *12*(3), 207-234.

Jones, T. C., & Dugdale, D. (1998). Theory of constraints: transforming ideas?. *The British Accounting Review*, *30*(1), 73-91.

Jones, T. C., & Dugdale, D. (2002). The ABC bandwagon and the juggernaut of modernity. *Accounting, Organizations and Society*, *27*(1-2), 121-163.

Jordan, S., & Messner, M. (2012). Enabling control and the problem of incomplete performance indicators. *Accounting, Organizations and Society*, *37*(8), 544-564.

Kadous, K., Koonce, L., & Towry, K. L. (2005). Quantification and persuasion in managerial judgement. *Contemporary Accounting Research*, *22*(3), 643-686.

Kenno, S., & Free, C. (2018). Fostering and forcing uses of accounting: Labour-Management negotiations in the automotive crisis in Canada 2008-2009. *Management Accounting Research*, *39*, 17-34.

Kerlin, J. A. (2006). Social enterprise in the United States and Europe: Understanding and learning from the differences. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *17*(3), 247-263.

Krlev, G., Münscher, R., & Mülbert, K. (2013). *Social Return on Investment (SROI): state-of-the-art and perspectives-a meta-analysis of practice in Social Return on Investment (SROI) studies published 2002-2012*. Retrieved December 19, 2018, from http://archiv.ub.uni-heidelberg.de/volltextserver/18758/1/CSI_SROI_Meta_Analysis_2013.pdf,

Lawrence, T. B., & Suddaby, R. (2006). Institutions and institutional work. *The SAGE Handbook of Organization Studies*, 215-254.

Letts, C. W., Ryan, W. & Grossman, A. (1997). Virtuous capital: What foundations can learn from venture capitalists. *Harvard Business Review*, *75*, 36-50.

Lintner, J. (1965). Security prices, risk, and maximal gains from diversification. *The Journal of Finance*, *20*(4), 587-615.

Lofland, J., & Lofland, L. H. (1995). *Analyzing social settings – A guide to qualitative observation and analysis.* Belmont, CA: Wadsworth Publishing.

Lounsbury, M., & Glynn, M. A. (2001). Cultural entrepreneurship: stories, legitimacy, and the acquisition of resources. *Strategic Management Journal*, *22*(6-7), 545–564.

Maguire, S., Hardy, C., & Lawrence, T. B. (2004). Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada. *Academy of Management Journal*, *47*(5), 657-679.

Maier, F., Schober, C., Simsa, R., & Millner, R. (2015). SROI as a method for evaluation research: Understanding merits and limitations. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *26*(5), 1805-1830.

Mair, J. (2010). *Social entrepreneurship: taking stock and looking ahead.* (IESE Business School Working Paper No. 888). Retrieved from https://ssrn.com/abstract=1729642.

Manning, S., & Bejarano, T. A. (2017). Convincing the crowd: Entrepreneurial storytelling in crowdfunding campaigns. *Strategic Organization*, *15*(2), 194–219.

Martens, M. L., Jennings, J. E., & Jennings, P. D. (2007). Do the stories they tell get them the money they need? The role of entrepreneurial narratives in resource acquisition. *Academy of Management Journal*, *50*(5), 1107–1132.

McBain, D., & Alsamawi, A. (2014, August). Quantitative accounting for social economic indicators. *Natural Resources Forum*, *38*(3), 193-202.

McCoyd, J. L., & Kerson, T. S. (2006). Conducting intensive interviews using email: A serendipitous comparative opportunity. *Qualitative Social Work, 5*(3), 389–406.

Miller, P. (1991). Accounting innovation beyond the enterprise: Problematizing investment decisions and programming economic growth in the UK in the 1960s. *Accounting, Organizations and Society*, *16*(8), 733-762.

Mook, L. (Ed.). (2013). *Accounting for social value*. University of Toronto Press.

Morse, J. M. (2010). Sampling in grounded theory. *The Sage Handbook of Grounded Theory*, 229-244.

Nicholls, A. (2009). 'We do good things, don't we?': 'Blended Value Accounting' in social entrepreneurship. *Accounting, Organizations and Society*, *34*(6-7), 755-769.

Novick, G. (2008). Is there a bias against telephone interviews in qualitative research?. *Research in Nursing & Health*, *31*, 391–398.

Porter, T. (1995). *Trust in numbers*: *The pursuit of objectivity in science and public life*. Princeton University Press.

Power, M. (2015). How accounting begins: Object formation and the accretion of infrastructure. *Accounting, Organizations and Society*, *47*, 43-55.

Rao, H., Morrill, C., & Zald, M. N. (2000). Power plays: How social movements and collective action create new organizational forms. *Research in Organizational Behaviour, 22*, 237-281.

REDF. (2001). *SROI Methodology: Analysing the value of social purpose enterprise within a social return on investment framework*. San Francisco: The Roberts Foundation.

Seo, M. G., & Creed, D. (2002). Institutional contradictions, praxis, and institutional change: A dialectical perspective. *Academy of Management Review, 27*(2), 222-247.

Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *The Journal of Finance, 19*(3), 425-442.

Strang, D., & J. W. Meyer. (1993). Institutional conditions for diffusion. *Theory and Society, 22*(4), 487–511.

Sturges, J. E., & Hanrahan, K. J. (2004). Comparing telephone and face-to-face qualitative interviewing: A research note. *Qualitative Researc*h, *4*(1), 107–118.

Suddaby, R., & Greenwood, R. (2005). Rhetorical strategies of legitimacy. *Administrative Science Quarterly, 50*(1), 35-67.

Sweet, L. (2002). Telephone interviewing: Is it compatible with interpretive phenomenological research?. *Contemporary Nurse, 12*(1), 58-63.

Thompson, P. (2000). *Voice of the past: Oral history*. Oxford University Press.

Tracey, P., Phillips, N., & Jarvis, O. (2011). Bridging institutional entrepreneurship and the creation of new organizational forms: A multilevel model. *Organization Science, 22*(1), 60-80.

Tuan, M. (2002). *REDF: Reflections on five years of venture philanthropy implementation.* Venture Philanthropy Partners, Inc. Venture Philanthropy.

Advancing Nonprofit Performance Through High-Engagement Grantmaking. Washington DC.

Tuan, M. (2004). Cultivating a culture of measurement. *Funding Effectiveness: Lessons in Building Nonprofit Capacity*, 105-142.

Tuan, M., & Emerson, J. (2000). *The Roberts Enterprise Development Fund: A case study on venture philanthropy.* Social Purpose Enterprises and Venture Philanthropy in the New Millennium, Volume II. San Francisco: Roberts Enterprise Development Fund.

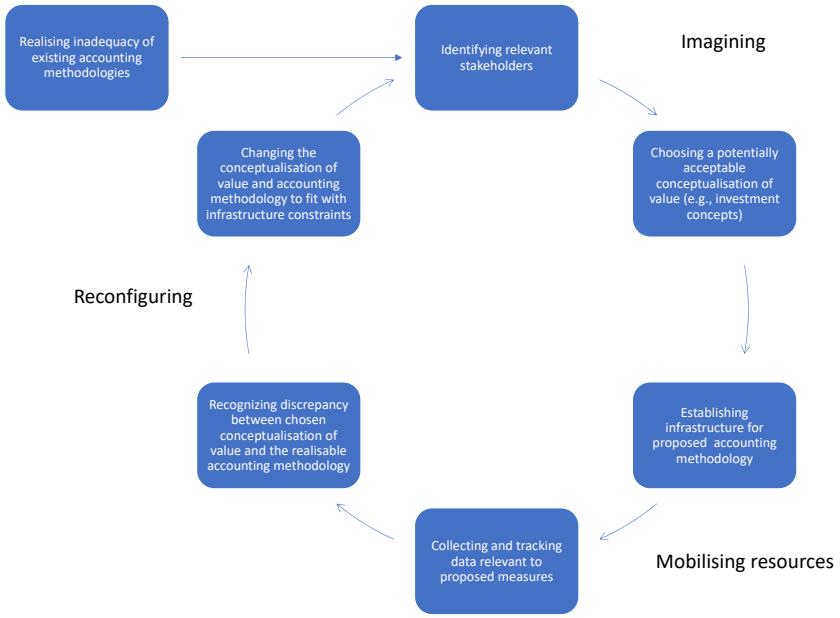
Twersky, F. (2002). *An information OASIS: The design and implementation of comprehensive and customized client information and tracking systems*. San Francisco: REDF.

Van de Ven, A. H., & Poole, M. S. (1990). Methods for studying innovation development in the Minnesota innovation research program. *Organization Science*, *1*(3), 313–334.

Table 1. Making numbers persuasive: using existing accounting methods vs designing new accounting methods

Using existing accounting methods	**Designing new accounting methods**
Knowledge challenge - draw on prior experience in dealing with stakeholders to determine what existing numbers would be persuasive	Imagination challenge - imagining the contours of a new accounting method that would convey the benefits of the innovation in ways stakeholders would find persuasive
Interpretive challenge - providing new and/or different framing and interpretation to existing accounting numbers. Accounting methods exist and are (relatively) taken-for-granted	Resource challenge - mobilising resources (money, time, expertise) to develop the infrastructure to support the new accounting method
Rhetorical challenge - convincing stakeholders that numbers are valid and relevant in the current setting	Reconfiguration challenge - reconfiguring the accounting method and the proposed value of the innovation so that the benefits of the innovation can actually be demonstrated by the new accounting method

Figure 1. Process for designing new accounting methods to demonstrate the value of innovations



Appendices

Appendix A: Timeline of relevant events

Time	Event
1986	• The Roberts Foundation is formed in San Francisco
1996	• The Roberts Foundation forms the Roberts Enterprise Development Fund ('REDF'), a fund aimed specifically at supporting social enterprises combating homelessness in the San Francisco Bay area. • REDF conducts a cost-benefit analysis of its funded social enterprises in the San Francisco Bay area.
1997-1998	• REDF begins to collect and compile information from 23 social enterprises, including reconstructing financial information. • REDF collects data manually using paper-based questionnaires.
1999	• REDF launches the distributed database OASIS (Ongoing Assessment of Social ImpactS) project • REDF staff and affiliated experts begin to develop the concept of Social Beta
2000	• REDF produces SROI reports on social enterprises • REDF report presents a general description of how Social Beta is to be calculated, as part of an explanation about SROI

2001	• REDF publishes its SROI methodology (REDF, 2001), including:
	  o the difficulties in calculating social value, and
	  o the difficulties in calculating Social Beta in practice

Appendix B: Primary documents analysed (in chronological order)

Emerson, J., & Twersky, F. (Eds.). (1996). New social entrepreneurs: The success, challenge and lessons of non-profit enterprise creation. *The Homeless Economic Fund, the Roberts Foundation*, 416.

Emerson, J., Tuan, M.T., L. Dutton, & Kessler, D. (1998). *The Roberts Enterprise Development Fund: Implementing a Social Venture Capital Approach to Philanthropy*. Stanford University Graduate School of Business. S-E- 45, October.

Tuan, M., & Emerson, J. (2000). *The Roberts Enterprise Development Fund: A case study on venture philanthropy.* Social Purpose Enterprises and Venture Philanthropy in the New Millennium, Volume II. San Francisco: Roberts Enterprise Development Fund.

Emerson, J., Wachowicz, J., & Chun, S. (2000). Social return on investment: Exploring aspects of value creation in the nonprofit sector. *The Box Set: Social Purpose Enterprises and Venture Philanthropy in the New Millennium, 2,* 130-173.

Emerson, J., & Cabaj, M. (2000). Social return on investment. *Making Waves, 11*(2), 10-14.

REDF. (2001). *SROI Methodology: Analysing the value of social purpose enterprise within a social return on investment framework*. San Francisco: The Roberts Foundation.

REDF. (2002). *An information OASIS*. San Francisco: REDF.

Gair, C. (2002). *A report from the good ship SROI.* San Francisco: REDF.

Tuan, M. (2002). REDF: Reflections on Five Years of Venture Philanthropy Implementation. In *Venture Philanthropy Partners, Inc. Venture Philanthropy. Advancing Nonprofit Performance Through High-Engagement Grantmaking*. Washington DC.

Dees, J. G., Emerson, J., & Economy, P. (2002). *Enterprising nonprofits: A toolkit for social entrepreneurs.* (Vol. 186). John Wiley & Sons.

Tuan, M. (2002). *REDF: Reflections on five years of venture philanthropy implementation.* Venture Philanthropy Partners, Inc. Venture Philanthropy. Advancing Nonprofit Performance Through High-Engagement Grantmaking. Washington DC.

Twersky, F. (2002). *An Information OASIS: The Design and Implementation of Comprehensive and Customized Client Information and Tracking Systems*. San Francisco: REDF.

Tuan, M. (2004). Cultivating a culture of measurement. *Funding effectiveness: Lessons in Building Nonprofit Capacity,* 105-142.

Gair, C. (2005). *If the shoe fits: Nonprofit or for-profit? The choice matters.* San Francisco: REDF.

BTW Consultants. (2005). *REDF Social Impact Report 2005*. San Francisco: REDF.

Javitz, C. (2008). *REDF's Current Approach to SROI.* San Francisco: REDF.

Gair, C. (2009). *SROI act II: A call to action for next generation SROI.* San Francisco: REDF.

Appendix C: Interviews

Who	Organization	Location	Connection with REDF	No. Interviews
Chief Executive Officer	Non-profit Evaluation Consultancy	San Francisco, USA	Former REDF staff member	1
Impact Investment Advisor	Venture Philanthropic Fund	San Francisco, USA	Former REDF staff member	1
Independent Consultant		Philadelphia, USA	Former REDF staff member	1
Professor of Finance	Stanford School of Business	Stanford, USA	Advisor to REDF on development of SROI	1
Senior Associate	Hedge Fund	Connecticut, USA	Former REDF staff member	1
Senior Advisor	REDF	San Francisco, USA	Staff member (at time of interview)	1
Chief Executive Officer	Social Enterprise	Winchester, USA	Former CEO of social enterprise funded by REDF	1
Portfolio Analyst	REDF	San Francisco, USA	Staff member (at time of interview)	1
				8

Appendix D: Indicators collected from REDF's portfolio of social enterprises

Business Operations Indicators for the REDF Portfolio

Standard Financial Indicators

- Gross sales monthly
- Gross sales year-to-date
- Gross profit monthly
- Gross profit year-to-date
- Net profit before social costs and subsidy monthly
- Net profit before social costs and subsidy year-to-date
- Net profit including social costs and subsidy monthly
- Net profit including social costs and subsidy year-to-date

Customized Operations Indicators (Note: These are samples of monthly indicators that differed by enterprise.)

- Customer satisfaction
- Cost of goods sold
- Cost of direct labor
- Number of sales calls monthly
- Timely completion of jobs
- Revenue per square foot
- Inventory reliability
- Inventory turnover rate
- Production wastage

Source: Tuan (2004)

Appendix E: First page of REDF SROI Report on a social enterprise from 2000

SROI Report • Winter 2000

THE ROBERTS ENTERPRISE DEVELOPMENT FUND
a philanthropic venture of The Roberts Foundation

Enterprise ABC

PARENT AGENCY: YOUTH INDUSTRY

Business Summary: Enterprise ABC and the recently opened Enterprise ABC2 are retail stores that sell used clothing and household items in San Francisco's Mission District.

1999		INDEX OF RETURN
Enterprise Value	$411,906	0.93
Social Purpose Value	$20,861,055	47.14
Blended Value	$21,222,960	47.96
Investment to date		$442,550
Number of Target Employees		68
Percentage of Target Employees		80%
Hourly Wage Range		$5.75-$7.50

Employment Risk Assessment (ERA)

Homeless or at-risk of homelessness	83%	Public assistance	35%
Convicted of a crime	45%	Not a high school graduate	36%
Mental health issues	45%	With dependent children	5%

OVERVIEW

- Enterprise ABC trains 50-70 homeless youth per year. Training time ranges from 4 to 12 months
- Both stores provide transitional and permanent jobs and training to homeless youth. The youth experience the real demands of business and employers
- Since opening the 5000 square foot store in 1999, combined sales have increased by 131% and are expected to increase over 32% for fiscal 2000

TARGET EMPLOYEE STATISTICS

AVERAGE TIME WITH ENTERPRISE ABC

5 months

AGE

18% 14-17 years old
62% 18-20 years old
20% 21-24 years old

RACE/ETHNICITY

47% White
18% African-American
18% Multi-ethnic
11% Asian/Pacific Islander
6% Latino/a

GENDER

57% male
40% female
3% transgender

EMPLOYEE HIGHLIGHT

Maria came to Enterprise ABC at age 18 after three years of supporting herself and her drug addiction through prostitution. After dropping out of a drug rehab program, she arrived at Youth Industry with a strong desire to learn skills that would allow her to maintain her recent and fragile freedom from drugs and the streets. She learned quickly and soon became a leader among her peers. After four months she was promoted to Assistant-Manager-In-Training and excelled in this role. Maria overcame many obstacles involving substance abuse and relationships while at YI. Her persistence paid off and she graduated after her ninth month. Maria accepted employment at a retail store in San Francisco after graduating from YI. She is now pursuing her dream to become a nurse by attending a certification program and is currently awaiting her nursing assistant license.