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Frugal innovation: Social entrepreneurs’ perceptions of innovation under institutional voids, resource scarcity and affordability constraints

by Yasser Ahmad Bhatti

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in fulfilment for

Doctor of Philosophy in Management Studies

Said Business School and Green Templeton College, University of Oxford

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I only desire betterment to the best of my ability; and my success can only come from God. In Him I trust, and unto Him I look. 11:88

I dedicate this dissertation to my father Dr M. Sharif Bhatti and mother Rabia Sultana for their dream and encouragement to me to do a PhD, and to my daughters Izzah and Shifa as a promise for a better future. I thoroughly enjoyed slowly, but surely working on this dissertation with my daughters sleeping in my arms! And I have always been and always will be grateful to my parents, wife Saba, brothers Mansour bhai and Saud bhai, and all extended family members without whose wishes I would not have attained success. And a special thank you to my brother Mansour bhai who first encouraged me to attend Oxford University in 2002 on a study abroad programme from the US which then gave me the motivation and confidence to pursue a doctorate at Oxford University.

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Oxford, United Kingdom
Wednesday 26 February, 2014
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ABSTRACT

Despite some understanding within the development literature about innovation in extreme contexts marked by challenges of institutional voids and resource scarcity, there exists little knowledge within organization theory and strategic management. To extend this understanding, I connect innovation in extreme contexts with research on social and purposeful innovation. But while the literature attributes social innovation to social entrepreneurs, we know little about how social entrepreneurs themselves view innovation. Questions that arise: How do social entrepreneurs conceptualize innovation broadly and specifically under extreme contexts marked by institutional voids and resource scarcity? I explore these questions using qualitative, descriptive and analytical methods by studying two communities of globally networked and formally recognized social entrepreneurs. Analysis is at meso level of innovation and value chains but observations are at micro level through document analysis, interviews, and observations.

I reveal perceptions by social entrepreneurs on conceptual drivers, determinants and key features of innovation. The findings help organizational theorists to frame models of innovation to understand innovation among social entrepreneurs broadly and in extreme contexts. In contrast to social innovation presented in current literature, I find innovation among social entrepreneurs is viewed as a disparate range of understandings that stem from varied motivations, means and outcomes related to social concerns as well as user, efficiency, and challenge concerns. I further find that social entrepreneurs turn to a mix of technology, social, and institutional innovations to deal with, make use of, or overcome constraints. The varied concerns and approaches to innovation can be condensed using the construct of 'frugal innovation' which helps provide some cohesion to the seemingly disparate notions of innovation among social entrepreneurs. I build propositions from the findings and suggest models of innovation that help develop a theory of frugal innovation with implications and lessons relevant for theory, practice, policy and future research.

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LONG ABSTRACT

I take up the question of how actors conceptualize innovation in extreme contexts marked by resource constraints and institutional voids. We know much about how innovation differs across sectors, types of organizations, geographical locations, and across individuals such as entrepreneurs and managers. But we know little about how situated actors conceptualize and account for innovation. The focus on models of innovation and specifically on how actors understand innovation is an opportunity to study innovation out of the status quo and in unique contexts. Despite some understanding within the development literature about innovation in extreme contexts marked by challenges of institutional voids and resource scarcity, there exists little knowledge within organization theory and strategic management. To extend this understanding and knowledge, I connect innovation in extreme contexts with another emerging field of activity – research on broadly social and purposeful innovation, rather than the status quo focus on technology innovation.

Social entrepreneurs are especially relevant to my thesis since we know little about how they conceptualize innovation in extreme contexts. The broad claim about social entrepreneurship is that this is market-based activity focused on societal change. And while the literature attributes social innovation to social entrepreneurs, we know little about how social entrepreneurs themselves view innovation. This qualitative descriptive study fills that gap by investigating how social entrepreneurs view or conceptualize innovation. I also study social entrepreneurs as an ideal use case because literature posits that social entrepreneurs function in extreme conditions marked by both resource constraints and institutional voids. The purpose is to reveal insights on how organizational theorists can better frame models of innovation to understand innovation among social entrepreneurs and in extreme conditions.

This project opens a different direction by asking: How do social entrepreneurs conceptualize innovation broadly and specifically under extreme conditions marked by institutional voids and resource scarcity? The main thesis question is broken down into the following three sub questions:

1. How do social entrepreneurs conceptualize innovation?
2. How do they conceptualize innovation under institutional voids?
3. How do they conceptualize innovation under resource scarcity?
Descriptive research on management and strategy practices uses fieldwork, interviews, and observations to create models of understanding, theory generation and eventual paradigms. I therefore explore the three questions using qualitative methods by studying two communities of globally networked and formally recognized social entrepreneurs, many building technology- and science-based ventures but inspired by social impact. Analysis is at meso level of innovation and value chains but observations are at micro level through business plan summaries, interviews with entrepreneurs, investors, and academics, and observations at an annual intensive social entrepreneurship and innovation ‘boot-camp’. I conducted two international trips for fieldwork spanning four months, collected 81 interviews and 163 archival innovation related documents.

The study reveals perceptions by social entrepreneurs on conceptual drivers, determinants and key features of innovation and helps organizational theorists to frame models of innovation to understand innovation among social entrepreneurs broadly and in extreme contexts. In contrast to the coherent phenomenon of social innovation presented in current literature, I find innovation among social entrepreneurs is viewed as a disparate range of understandings that stem from varied motivations, means and outcomes. These motivations and means draw from social concerns as well as user, efficiency, and challenge concerns. I further find that social entrepreneurs turn to a mix of technology, social, and institutional innovations to deal with, make use of, or overcome resource and affordability constraints and institutional voids. I reveal that these varied concerns and approaches to innovation are summarized by social entrepreneurs through the concept of 'frugal innovation'. This new concept provides some cohesion to the seemingly disparate notions of innovation among social entrepreneurs. I build propositions that stem from the findings of diverse perceptions of what innovation is for and among social entrepreneurs and suggest models of innovation that help to propose a theory of frugal innovation with implications and lessons relevant for theory, practice, policy and future research.

(653 words)
1 INTRODUCTION

1.1 Motivation & objective

Fagerberg (2005) reviews the broad area of innovation studies and identifies four emphases in the research literature; 'innovation in the making', 'the systemic nature of innovation', 'how innovation differs', and 'innovation and performance'. My work builds out from this question of ‘how innovation differs’. We know much about how innovation differs across sectors, types of organizations, geographical locations, and across individuals such as entrepreneurs and managers. But we know little about how social entrepreneurs (Mair and Marti´ 2006; Elkington & Hartigan 2008) as opposed to commercial entrepreneurs (Sarasvathy 2001; Austin, Stevenson, & Skillern 2006) conceptualize models of innovation (Guillén 1994; Sarasvathy 2001; Marinova and Phillimore 2003; and Mair, Battilana, & Cardenas 2013). The focus on models of innovation and specifically on how social entrepreneurs understand innovation is an opportunity to study innovation out of the status quo and in unique contexts.

Literature review reveals that despite some understanding in the development literature, there is little knowledge in organization theory and strategic management on how innovation takes place within both simultaneous challenges of institutional voids and resource scarcity. I connect this with another emerging field of activity – research on broadly social and purposeful innovation, rather than the status quo focus on technology innovation. The broad claim about social entrepreneurial activity is that this is market-based innovation focused on societal change (Nicholls 2006a; 2006b; Nicholls and Murdock 2011). Much of the research on social entrepreneurship is focused on who are social entrepreneurs and what they do. And this population is especially relevant to my thesis as I will show in the literature review, we know little about how they conceptualize innovation in extreme contexts marked by simultaneous concerns for resource constraints and institutional voids.
1.1.1 Why focus on innovation?

Studies in strategy under contingencies such as institutional voids and resource constraints or scarcity have focused on MNC and large business group strategies (Khanna and Palepu 1997; 2006), entrepreneurship (Tracey and Jarvis 2007; Tracey and Phillips 2011; Puffer, McCarthy and Boisot 2010), social entrepreneurship (Mair and Marti 2009), and market building (Mair, Marti, & Ventresca 2012). The study of actors situated in innovation value chains (c.f. Hansen and Birkinshaw 2007; Roper, Du, and Love 2008) under contingencies may help bridge the different perspectives in previous studies on entrepreneurial or large business strategic response to institutional voids or resource constraints. Also through focus on innovation, we may show how both challenges can be better understood and overcome.

In general, institutionalists have not paid much attention to the origins of innovation (Lounsbury and Crumley 2007). While there exists work on how social entrepreneurs operate under simultaneous concerns for institutional voids and resource scarcity (c.f. Dart 2004; Haugh 2005; Seelos & Mair 2005; Austin, Stevenson, and Skillern 2006; Mulgan et al. 2007a; 2007b; Desa 2009a; 2009b; Mair & Marti 2009; Mair, Marti and Ventresca 2012; Miller, Grimes, and Vogus 2012), there is little work on how innovation is viewed or understood by social entrepreneurs. I argue that if we focus on innovation, we may be able to show how both challenges interplay simultaneously as perceived by social entrepreneurs and better understood how these challenges are dealt with. Consequently, the study of innovation as the unit of analysis may help bridge the different perspectives in previous studies on entrepreneurial and large business response to institutional voids and resource constraints.
1.1.2 Why focus on both institutional voids and resource scarcity?

Much work on innovation has explored ‘innovation under constraint’. These constraints take a variety of forms. But this literature has typically focused on resource constraints (Nohria and Gulati 1996; Rao and Drazin 2002) in the absence of formal institutional contexts (North 1990; Altenburg 2009). While some have looked at the enabling effect of resource constraints on innovation outcomes, most have argued that resource constraints have an inhibiting effect on innovation and that slack supports creativity and innovation (Weiss, Hoegl, and Gibbert 2011). Research in creative cognition psychology finds actors are most innovative when given fewer rather than more resources, supporting the hypothesis that "less is more" (Gibbert, Hoegl, and Valikangas 2007, p.16). And other work has provided largely anecdotal evidence that remarkable, and even disruptive innovation, outcomes can be achieved with constrained financial resources as well as lack of formal institutions (c.f. Hart and Christensen 2002; Christensen, Baumann, Ruggles and Sadtler 2006; Bold 2011; Govindarajan and Ramamurti 2013). Some emerging work on innovation under the dual constraints points to new analytic issues such as the rising popularity of innovation in developing and emerging markets (Bhatti, Khilji, and Basu (2013) and the more general concern with Bottom or Base of the Pyramid markets (Prahalad 2005).

The idea that resource scarcity can be an impediment to innovation as well as an enabler to identify new opportunities and enforce efficiency in innovation can allow us to identify perceptual norms among entrepreneurs who face resource constraints. And the idea that institutions can be formal as well as informal can allow us to identify perceptual norms among entrepreneurs who seek to fill the structural voids or deal with complexities in their operating environment.
1.1.3 Why social entrepreneurs as a study population?

Literature often attributes social innovation to social entrepreneurs (c.f. Seelos and Mair 2005; 2007; Phillips, Deiglmeier, and Miller 2008; Pol and Ville 2009; Minks 2011), but we do not know empirically much about how social entrepreneurs conceptualize social innovation or even innovation in general. It is worthwhile to study not only what they do in practice but also how they conceptualize innovation. Such an investigation can provide insights into furthering models of innovation among social entrepreneurs (Mair, Battilana, & Cardenas 2013) as well as those models that scholars have built up over the years among commercial entrepreneurs (c.f. Guillén 1994; Sarasvathy 2001; Marinova and Phillimore 2003). So the vocabularies social entrepreneurs use and generate reveal insights on what they think about and how they conceptualize innovation. The focus on social entrepreneurs is particularly interesting because social entrepreneurs face two double edged challenges. One, they function within a field where there is a lack of institutions (or many complicated informal ones) and second, they have to deal with lack of resources devoted to social enterprise and innovation (Mulgan et al. 2007). Further, they have to innovate in environments where beneficiaries themselves reside in environments marked by institutional voids or complexities (Mair, Marti and Ventresca 2012) and do not have adequate resources (Hart and Prahalad 2002; Prahalad and Hammond 2002; Prahalad 2005). However, as I discover based on literature search and review, there is insufficient literature, if any, on how innovation is understood by social entrepreneurs who operate simultaneously under institutional voids and resource scarcity.
1.1.4 Identifying unexplored literature

I draw from two main streams in the literature: Innovation Studies and Social Entrepreneurship as shown in figure 1.1. I find that the innovation literature (stream 1) looks at innovation under constraints of either institutional voids or resource scarcity. Few if any studies on innovation have combined the challenge of both simultaneous constraints of institutional voids and resource scarcity. But the social entrepreneurship literature (stream 2), argues that social entrepreneurs have to function and innovate in extreme conditions marked by both institutional voids and resource scarcity. So this study seeks to advance models and theory of innovation by bridging the literatures on innovation with social entrepreneurship and institutions and resources, specifically the lack thereof. A study of innovation under constraints as perceived by under theorized actors such as social entrepreneurs may help to reveal new insights into how innovation may be conceptualized differently (Fagerberg 2005).

<See figure 1.1, page 22>

1.2 Research questions

I take up the question of how actors conceptualize innovation broadly and in unique and extreme contexts marked by resource scarcity and institutional voids. The main thesis question is: How do social entrepreneurs conceptualize innovation broadly and specifically under extreme conditions marked by institutional voids and resource scarcity?

This is broken down into the following three sub questions:

1. How do social entrepreneurs conceptualize innovation?

Objective: To investigate through exploratory and descriptive analysis what social entrepreneurs think about innovation and say they do as opposed to what they ‘really’ do on the ground.
**Significance:** Contributes to perceptions and key features of models of innovation relevant for management theory and policy.

2. *How do they conceptualize innovation under institutional voids?*

**Objective:** To determine how this perception and view on innovation is shaped by the notion of institutional voids, or other related idea regarding some form of institutions.

**Significance:** Contributes to the literature on how contextual conditions based on institutional theory shape models of innovation.

3. *How do they conceptualize innovation under resource scarcity?*

**Objective:** To determine how this perception and view on innovation is shaped when confronted by the notion of resource scarcity or constraints.

**Significance:** Contributes to the literature on how contextual conditions based on resource dependency theory shape models of innovation. Further, both questions 2 and 3 together advance our theoretical understanding of innovation under constraints by bridging the literatures on innovation with institutional theory and resource theories.

1.3 **Approach and method**

The research explores these questions using qualitative methods by studying two communities of globally networked and formally recognized social entrepreneurs, many building technology- and science-based ventures but inspired by social impact. Analysis is at meso level of innovation and value chains but observations are at micro level through business plan summaries, interviews with entrepreneurs, investors, and academics, and observations at an annual intensive social entrepreneurship and innovation ‘boot-camp’. I have conducted two international trips for fieldwork spanning four months, collected 81 interviews and 163 archival innovation related documents. I use thematic content analysis
(TCA) and specifically the technique of template analysis to conduct the TCA.

1.4 Findings & contribution

Despite growing interest, current scholarly understanding of innovation among social entrepreneurs is based largely on assumption that social innovation is produced by social entrepreneurs. This assumption has little empirical support and has suffered from a lack of a unified and coherent framework that captures the unique constraining environment under which social entrepreneurs seek to innovate. My work investigates empirically how social entrepreneurs conceptualize innovation and uses these empirical insights to build theoretical models that will be useful in furthering research on how social entrepreneurs innovate.

In acknowledging the risks and limitations of building theory based on innovation as ‘socially constructed’ through perceptions of social entrepreneurs, I depart from the purely inductive, field-based, and grounded theory approach (Glaser and Strauss 1967) and instead use the methodological approach of retroduction (Ragin 1994; Ragin and Amorosso 2010), as this supports iterative use of deduction based on current knowledge and induction based on emerging evidence.

Models of innovation derived from social entrepreneurs have not been extensively and empirically developed yet, and are important as they can help inform our assumptions on social innovation and other emerging concepts such as frugal, grassroots, and reverse innovation, all sometimes attributed to social entrepreneurs. Consequently, this study advances an understanding of innovation among social entrepreneurs in a number of ways. The first contribution lies in the development of empirically derived models of innovation
(such as those of Guillén 1994 and Sarasvathy 2001) as perceived by social entrepreneurs that outline the hybrid mix of motivations and components of innovation approaches that can help explain emerging trends and multi-dimensional constructs in innovation. The second contribution lies in outlining the constraints within which this innovation is conceptualized and likely practiced and how this context compares with the operational context in which mainstream entrepreneurs innovate. More specifically based on this four year-long study, I am able to make the following specific claims:

**On innovation:**
1. Social entrepreneurs are involved in more than social innovation.
2. Social entrepreneurs use a combination of existing innovations.
3. Social entrepreneurs were more likely to be concerned about institutional and social innovation than technology innovation.
4. Social entrepreneurs are packing combinations of innovations into new emerging concepts such as frugal innovation.

**On constraints to innovation:**
5. Extreme contexts marked by constraints are not unique to developing or emerging markets but also exist in pockets of developed markets.
6. Social entrepreneurs and their customers face a combination of constraints to innovation – institutional voids, resource and affordability constraints.
7. Social entrepreneurs are more focused on challenges of resources while investors are more focused on institutional challenges.

**On methods:**
8. This is one of few qualitative studies to acknowledge the use of retroduction in methods, as opposed to a purely inductive or deductive approach.

Content analyses and thematic coding has revealed intriguing results and two models of innovation. Model 1 on innovation viewed among social entrepreneurs is revealed in chapter 4 and model 2 on innovation under constraints as viewed among social entrepreneurs is
revealed in chapter 5. Chapter 6 integrates lessons from these two models of innovation to suggest a theory of frugal innovation.

In contrast to the coherent phenomenon of social innovation presented in current literature, I find that innovation among social entrepreneurs is viewed as a disparate range of understandings that stem from varied motivations, means and outcomes. These motivations and means draw from social concerns but also user, efficiency, and challenge concerns. Further I find that social entrepreneurs view adopting a mix of technology, social, and institutional innovations to overcome resource and affordability constraints and institutional voids. I find these varied concerns and approaches to innovation are summarized by social entrepreneurs through use of the concept of 'frugal innovation'. This new concept provides some cohesion to the seemingly disparate notions of innovation among social entrepreneurs. The study reveals perceptions on conceptual drivers and determinants, and key features of innovation as viewed among social entrepreneurs, to propose a theory of frugal innovation with implications and lessons relevant for theory, policy and future research.

1.5 Organization of the dissertation

Chapter 2 reviews the literature on innovation and (social) entrepreneurship, chapter 3 covers research methodology, chapter 4 reveals the empirical findings for research question 1, chapter 5 reveals the empirical findings for research question 2 and 3, chapter 6 integrates lessons from all the findings in this dissertation and discusses theory development based on these findings, and chapter 7 closes this study with a discussion of limitations and avenues for future research.
Figure 1.1: Identifying unexplored literature
2 LITERATURE REVIEW

2.1 Introduction

For the literature review that is relevant to this study, I draw on two main streams: the innovation and entrepreneurship literatures, respectively. From within these two higher level streams, I delve into specifically social innovation and social entrepreneurship. I then refer to literature that positions social entrepreneurship under contexts of constraints i.e., under resource constraints and institutional voids. The sequence of literature review ‘sense-making’ is summarised in the visual depiction below. The black solid arrows in figure 2.1 show the sequence of linkages in existing literature. The dashed red arrows show the spaces of opportunity between these literature streams from where I draw the three research questions I explore in this study:

- **RQ1:** How do social entrepreneurs conceptualize innovation?
- **RQ2:** How do they conceptualize innovation under institutional voids?
- **RQ3:** How do they conceptualize innovation under resource scarcity?

<See figure 2.1, page 72>

I begin this chapter with a brief introduction to literature on innovation and then delve deeper into social innovation. I identify limitations in the way we understand social innovation, mainly as one where researchers have widely but insubstantially attributed social innovation as the purview of social entrepreneurs (c.f. Seelos and Mair 2005; Phills et al 2008; Pol and Ville, 2009; Minks 2011; Gundry et al 2011). The social entrepreneurship literature argues that what sets social entrepreneurship apart from mainstream
entrepreneurship, is the degree to which social entrepreneurs face, deal with and overcome contextual or external constraints (c.f. Mulgan et al. 2007; Desa 2009; Mair, Marti and Ventresca 2012). These constraints can be broadly categorized as institutional voids and resource constraints. The existing linkages across the five literature streams suggest that we still need to have a better understanding of the fundamental nature of innovation as perceived by social entrepreneurs. Further, there is opportunity to contribute to existing literature by better understanding how innovation is viewed by social entrepreneurs specifically under contextual constraints. A snapshot of some of the salient literature cited is depicted in figure 2.2.

<See figure 2.2, page 73>

2.2 Innovation

As a diverse topic, a variety of disciplines address innovation such as marketing, product development, technology management, organizational behaviour, economics, and sociology. The research links across different fields are not so clear, but I will attempt to provide a theoretical brief of innovation leading to the study of social innovation.

Fagerberg (2005) reviews the broad area of innovation studies and identifies four emphases in the research literature; 'innovation in the making', 'the systemic nature of innovation', 'how innovation differs', and 'innovation and performance'. My work builds out from this question of ‘how innovation differs’. One way to understand how innovation may be different is to look at its form and function. Classical economist Joseph Schumpeter (1934a;b) posited that entrepreneurs carry out innovation which can be broken down into following types of innovation:

1) The introduction of a new good or a new quality of the good
2) The introduction of a new method of production
3) The opening of a new market
4) The conquest of a new source of supply
5) The carrying out of the new organization of an industry

Innovation can be defined “as an idea, practice, or object that is perceived as new by an individual or other unit of adoption” (Rogers 2003, p. 12). However, to some scholars (c.f. Utz and Dahlman 2007; Foster and Heeks 2013) lack of commercial success or widespread scale up and adoption signals lack of innovative success. More broadly innovation can be considered as a process “to create competitive advantage by perceiving or discovering new and improved ways of competing in an industry and bringing them to market” (Porter 1990 p.45). Since Schumpeter, we have learned much about how innovation differs across sectors, types of organizations, geographical locations, and across individuals such as entrepreneurs and managers. For instance, dominant innovation and diffusion literature has dichotomously (Lynn, Reddy, and Aram 1996) viewed innovation as either competence enhancing or competence destroying (Abernathy and Clark 1985; Tushman and Anderson 1986); architectural or component (Henderson 1993; Henderson and Clark 1990); basic or improvement (Mensch 1979); and product or process (Abernathy and Utterback 1978).

Another way of looking at the trajectories in innovation studies is to understand the field as split in to two overarching themes: One, the problem of generating innovations which involves the “where from” and “how to” and two, the problem of what happens to innovations once they are produced, “diffusion” and “market outcome” (Drazin and Schoonhoven 1996). While both have provided concepts and frameworks to understand and analyze innovation creation and diffusion, they have been criticized (Lynn et al 1996) for neglecting wider interactive effects such as diffusion, use, and end-user improvement, for inadequately considering the 'systems' nature of most technological innovations (Hughes
1983; Freeman 1995; Rosenberg 1979) and for reducing technological innovation to a simple reactionary response to demand and pull from consumer needs (Dosi 1982; Mowery and Rosenberg 1979).

From the above we see that innovation research and studies have often been marked by a technology bias as well as an economic bias (Roth 2009; Rennings 2000). The dimension of artefacts constituting products, ideas and methods is often associated with technology bias in the present discourse on innovation (Roth 2009; René 2005). But for purposes of this study, there is a growing interest in the social dimension of innovation (Mulgan 2006) or ‘social innovation’, and in general, institutionalists have only recently begun to study the origins of innovation (Lounsbury and Crumley 2007).

2.3 Social innovation

Lawrence, Phillips and Tracey (2012, p.321) define social innovation as one that "involves the transformation of social systems in ways that both address social problems in a practical sense and shift our ways of thinking about these problems." In comparison to dominance of business and technology innovation, there has been scant systematic analysis of the design, diffusion and support of social innovations (Foundation 2012). Although innovation studies are dominated by technical innovation (Roth 2009), there is evidence that the notion of social innovation is present in the early works of economists Joseph Schumpeter and Nikolai Kondratiev (Kesselring 2009). Schumpeter distinguished between product, process, procedural and organizational innovations to tap new markets. However in order to assure the economic efficacy of technical innovations, Schumpeter emphasised the importance of social innovation in the economic arena as well as in culture, politics and a society's way of life (Howaldt and Schwarz 2010). In fact, the trajectory of technological
innovation, economic performance and consequently social change predated Schumpeter in the works of classical sociologist Karl Marx and political economist Adam Smith. Around the same time as Schumpeter, sociologist Ogburn (1937) was one of the first to distinguish technology and social innovation, but he still assumes the primacy of technology as a precursor and driver of social change (Howaldt and Schwarz 2010).

Since classical economists, the focus of innovation studies over most of the second half of the 20th century has almost exclusively been on technology innovation. The attention to social innovation in literature since Schumpeter is rare and marginal (cf. Moulaert et al. 2005). Only since two decades ago has social innovation gradually enjoyed a surge in interest. Public discourse is increasingly focused on social and economic problems prompting a call for extensive social innovation (Howaldt and Schwarz 2010). Despite this growth in attention on social innovation, it is still elusive with regard to terminology, concept and content (Howaldt and Schwarz 2010). Consequently, "the field of social innovation remains relatively undeveloped" (Mulgan et al. 2007, p.3). The British newspaper The Guardian writes "Social innovation is the new global obsession. It might be a nebulous idea but it has huge potential…The language around social innovation easily slides into smoke and mirrors." (Roberts 2008).

The rising popularity of social innovation is associated with increasing social, environmental and demographic challenges (Foundation 2012). These challenges are exacerbated due to ambitions of the modern welfare state, the limitations of conventional market capitalism, deepening climate change, ever-increasing and ageing population and the associated care and health costs, the impact of globalisation, the impact of mass urbanisation and for purposes more relevant to this study, scarce and finite resources (Foundation 2012). Each of the private and public sectors and civil society individually have been unable to cope
with these challenges because of market failure in private sector, silos in public sector, and lack of scalability and fragmentation in civil sector (Foundation 2012).

But the delineation of social innovation is not just an inquiry of academic concern. According to Mulgan (2006), “the pace of social innovation will, if anything, accelerate in the coming century” (p. 145). Policy makers are interested in using and managing advanced social indicators of innovation (Moris, Jankowski, and Perrolle 2008) and proposed systemic policy views (Soete 2007; 2008). The concept of social innovation is not established in social theory (Aderhold 2005) and what we need are in fact greater theoretical and empirical studies on social innovation as innovations in their own right (Kesselring 2009). Kesselring’s study of social innovation helps distinguish social innovation from social change -- a social change may ensue following concerted efforts to innovate. However it is difficult to delineate social innovation as almost any type of innovation that transforms societal practices to be defined as a social innovation such as a sect (Cornwell 2007), the eBook (Cavalli 2007), or scientific management (Mumford and Moertl 2003). Roth (2009) contends that even economic innovations are one type of social innovation since most are the outcome of societal efforts (Barré 2001; Nowotny, Scott and Gibbons 2001) or the result of the co-evolution of both economic and non-economic functional systems of society (Etzkowitz and Leydesdorff 2000; Leydesdorff 2005). Mulgan et al. (2007, p. 9) define "social innovations as the development and implementation of new ideas (products, services and models) to meet social needs." But here also Mulgan et al make a distinction between social needs of the society as a whole from the individual based on "merely personal needs or demands". Nevertheless, the real potential of innovation is in fact in its social dimension (cf. Roth, 2009; Pot and Vaas 2008).

Even so, social innovation is presented as a secondary phenomenon which ensues as social change to technological and economic innovation, a view still dominant today (Roth
2009). For instance, Moulaert et al (2005) comment that in the field of urban planning an overly technological focus paved way for greater support for social innovation to theorise human development, empowerment and local development strategies (Foundation 2012; cf. Gerometta, Haussermann, & Longo 2005). Desa’s dissertation (2009a) was one of few recent and substantial works that helped to bridge the dominant focus on technology and the secondary focus on social innovation by exclusively studying technology ventures engaged in social innovation. Desa’s subsequent work (2011) provides insights on how technology is used directly to address social problems in an economically sustainable manner.

When we look beyond a technological focus, we begin to see social innovation as embodying variety of actors and missions. Murray, Calulier-Grice and Mulgan (2010) stress not only new ideas including products, services and models, but also the creation of new social relationships or collaborations in the process to meet social needs. A report on social innovation by The Young Foundation commissioned by the European Commission (2009) presents that first, social innovation cuts across different private, public and civil sectors even though most literature on social innovation tends to study it within a specific sector. But when taken together, the literature shows that social innovation takes place in all three sectors, and often at the intersections of these sectors. Social ventures are deemed to operate at the nexus of economic, public, and community sectors (Dees 1996; 1998; Mair & Marti 2006) or at the intersection of multiple institutions such as the market, government, and the community (Desa 2009a; Shaw & Carter 2004). Issues such as governance, empowerment, and capacity building have expounded the dynamics in relationships between different actors and the skills, competencies, assets and social capital brought to the table by these actors (Foundation 2012). The organisations engaged in social innovation are often able to span the intersection of various sectors – thereby being ‘hybrid’ organisations. One type of this ‘hybrid’ organization is the social enterprise.
It was believed that social entrepreneurs provide innovative leadership in social enterprises (Dees 1998) and the role of innovation in a social entrepreneurial organization was emphasized (Borins 2000). However much like social entrepreneurship, social innovation has developed with ill-defined boundaries, meanings and definitions (Foundation 2012). But the understanding of social innovation has been more ephemeral in the literature than social entrepreneurship, the latter which has benefitted from greater traction with relatively well defined concepts, definitions and analyses (cf. Nicholls and Murdock 2011; Mair and Marti 2009). Moreover, the Young Foundation (2012) contends that social innovation is far broader than social entrepreneurship, which poses both opportunities and challenges to knowledge discovery and use. According to a review of the literature in the same report, Hamalainen and Heiskala’s (2007) five types of innovation; technological, economic, regulative, normative and cultural taken together form the sphere of social innovations.

The stream of social innovation literature that this work builds upon, describes social innovation as the work of social entrepreneurs, emphasising the role of individuals’ to develop innovative solutions for difficult social challenges (Bornstein 2004; Bornstein and Davis 2010; Dees and Anderson 2006; Goldsmith 2010; Hartigan and Elkington 2008; Hoogendoorn, Pennings and Thurik 2010). Nicholls and Murdock (2011) found in review of the literature, that social innovation research can be understood as focusing on ‘systems and processes of change in social relations’ at one extreme and ‘innovation in the conceptualisation, design and production of goods and services that address social and environmental needs and market failures’ at the other extreme. Moreover, social innovation is a practice-led field which is contextually based (Foundation 2012). Most work has been on successful case studies rather than on understanding patterns and stages of social innovation (Foundation 2012). And most literature on social innovation has focused on the process
perspective of social innovation touching upon more practical concerns on how to develop and implement “successful” programmes and strategies. A case in point is the book, "The Social Innovation Imperative" by Bates (2011) which is purported to be first book that presents a detailed, structured methodology for social innovation derived from academic models and practical experience. It seeks to provide a 'how-to' to address ‘wicked problems’ such as health care, education, poverty, disaster response, neglected elderly, and environmental destruction. These issues are termed so because they are complex issues that involve several different constituents, many of which have conflicting or competing objectives (Bates 2011). But even this book fails to adequately shed theoretical insights on how social entrepreneurs themselves perceive social innovation or even innovation in general. Although practice is important, we can also learn a lot from how people think and perceive concepts, thereby building additional layers of knowledge to what we already know.

I argue that before we can begin to look at the practical concerns on what may entail good or bad strategies for social innovation that might be pursued by social entrepreneurs, social scientists must pay more attention to the way social entrepreneurs conceptualize or perceive social innovation as a construct, phenomenon, or concept. And there is little work on the conceptualization of innovation among social entrepreneurs. So this dissertation moves away from the more practice led approach to a more conceptual approach, as this will be useful for generating models and concepts of innovation as opposed to simply describing what social entrepreneurs actually do on the ground. Some of the unaddressed questions in social innovation research include: Is social innovation perceived collectively as one or as varied constructs? To what extent do academic conceptualizations of social innovation match or differ from those of actual social entrepreneurs? Towards paving the way to answer these questions, I propose to move a step back and explore in this dissertation the fundamental question, “how do social entrepreneurs perceive innovation?” The gaps in the literature
suggest that this work will be a seminal study in delineating social innovation into models of understanding based on empirically gathered perceptions of social entrepreneurs. As such this study helps to understand patterns and concepts of innovation by social entrepreneurs and it does not seek out successful cases but rather looks at early stage social entrepreneurs, who may not all be considered “successful”. Further the geographical and sectoral diversity of informants in this study provide for a more encompassing perspective of innovation by social entrepreneurs.

2.4 Social entrepreneurship

Social entrepreneurship and social innovation have often been intertwined to the extent it can be hard to distinguish the two. Tracey and Jarvis (2007) claim that social entrepreneurship is often defined as innovation that leads to positive social change. This is perhaps due to the fact that the notion of trading for a social purpose is at the core of social entrepreneurship (Travis and Jarvis 2007). A prevalent understanding of social entrepreneurs is that their primary objective is to create social value while a secondary but necessary objective is to also create economic value to ensure financial viability (Mair and Martí 2006).

There is increasing interest among both researchers and practitioners about market based solutions to social issues (Miller et al 2012). A social issue refers to concerns such as poverty, illiteracy, and unemployment which is “a putative condition or situation that is labelled a problem in the arenas of public discourse and action” (Hilgartner & Bosk 1988: 53–54). When social issues are resolved in a way that “achieves an equivalent social benefit with fewer dollars or creates greater social benefit for comparable cost” (Porter & Kramer 1999: 126), this process can be called social value creation (Miller et al 2012). Similarly, the
proceeds of social benefit go mainly to society, as opposed to an individual or specific organization (Thompson 2002).

With a focus on commercial market activity by social entrepreneurs to create social value alongside economic value, social entrepreneurship in fact has its roots in the study of non-profits. The adoption of business practices in non-profit organizations resonates with the literature about social entrepreneur traditions (Dart 2004 cites examples by Emerson & Twersky 1996; Dees et al. 2001). A focus on the financial bottom line was atypical or uncommon in the non-profit funding and service environment (Dart 2004). But more focus on commercial activity by nonprofits brought more attention to market based approaches focusing on financial bottom line, efficiency and reduced cost structures and market-focused social innovations (e.g. Austin 2000; Emerson & Twersky 1996; Brinckerhoff 2000; Dees, Emerson and Economy 2001). Social enterprises often seek to create social value (Peredo & McLean 2006; Shaw & Carter 2007), through commercial market-based models (Hartigan 2006; Hockerts 2006; Lasprogata & Cotten 2003; Thompson 2002). Desa (2008) finds that social entrepreneurship literature has four broad streams: i) Defining and differentiating the field of social entrepreneurship; ii) Understanding the constraining and enabling role of institutions on social entrepreneurship; iii) Focusing on the resource-constrained environments within which social enterprises operate; and iv) Evaluating the performance metrics for social entrepreneurship. I allude to the first stream, but for this work I draw mainly from the second and thirds streams.

Social entrepreneurs are committed to serving society (Brooks 2008; Nicholls 2006; Austin et al. 2006; Elkington & Hartigan 2008). In contrast, mainstream commercial entrepreneurs primarily seek to create economic value (Austin et al. 2006). In other words, social entrepreneurs look to serve the underserved whose needs are not sufficiently addressed through commercial ventures in market exchange (McMullen 2011). Another way to look at
social entrepreneurship is to understand that benefits accrue primarily to targeted beneficiaries, as opposed to owners (Alvord, Brown, and Letts 2004; Austin et al. 2006; Mair & Marti 2006). Nevertheless, in this process of trading, social entrepreneurs have to exploit market opportunities, assemble resources, and develop products and/or services that help achieve ‘entrepreneurial profit’ (Schumpeter 1934a). Unlike traditional commercial entrepreneurs who have a single and ultimate goal of financial return, and unlike pure non-profit entrepreneurs who have a single and ultimate goal of social philanthropy, social entrepreneurs have dual goals of providing both mission-related social outcomes as well as market-based outcomes (Desa 2011).

Despite some of this common understanding of social entrepreneurship, there are several variations in definition of social entrepreneurship (Lepoutre Justo, Terjesen & Bosma 2013; Estrin, Mickiewicz, & Stephan 2011; Mair and Marti 2007; Dacin, Dacin & Matear 2010; Short, Moss & Lumpkin 2009). The perspectives on social entrepreneurship also differ widely in international settings ranging from the USA to UK, Europe, Australia and Japan (Defourny & Nyssens 2008; Desa 2009; Zahra et al 2008; Ooshima 2009). Estrin, S., Mickiewicz, T., & Stephan (2011) cite Zahra et al. (2009) as having analyzed twenty definitions in a literature review and highlighted three types of social entrepreneurs: social bricoleurs (following Hayek), social constructionists (following Kirzner) and social engineers (following Schumpeter). The social bricoleur responds to local opportunities, acts locally, and uses local resources. The majority of social entrepreneurs may often start as social bricoleurs. The social constructionist realizes that a specific local need is more widespread and creates organisations with scalability. The social engineer may even challenge the wider institutional structures. Model 1 in chapter 4 seems to conform to this typology of social bricoleur (grassroots-based innovation), social constructionist (social-based innovation), and social engineer (efficiency-based innovation) with challenge-based innovation extending this
categorization. Zahra et al’s (2009) examples of social entrepreneurs or social engineers who have significant impact on their environment are mainly from the developing world, though not exclusively.

Gundry et al's (2011) work exemplifies the presumed assumption of social entrepreneurship and social innovation. They posit that if social entrepreneurs are primarily concerned with the development of innovative solutions to society's problems; the act of doing so would be social innovation. Social entrepreneur traditions are emphasized by social innovation, entrepreneurial activist, and frame-breaking approaches to non-profit management (Dart 2004). As covered in the preceding section on social innovation, I connect the little we know about the views of social entrepreneurs on innovation with social and purposeful innovation, rather than the status quo focus on technology innovation. The broad claim about social entrepreneurial activity is that this is market-based innovation focused on societal change (Nicholls 2006, Nicholls and Murdock 2011). Fundamentally social entrepreneurship is challenging because it attempts to merge two ostensibly contradictory organizational goals, social value creation and profit generation, in environments where even basic institutional infrastructure may not exist (Miller et al 2012).\(^1\)

But much of the research on social entrepreneurship, as alluded to above, is focused on who are social entrepreneurs and what they do. This is because about a decade ago, a consensus developed that understanding social entrepreneurship and social entrepreneurs is important (Cooperrider and Pasmore 1991; Dees 1998). Nevertheless, literature on social entrepreneurship is fragmented and there is no coherent theoretical framework (Weerawardena & Mort 2006). But in order to focus on the socially innovative perspective by social entrepreneurs, I adopt Mair and Marti’s (2006, p. 37) definition of social entrepreneurship.

\(^1\) In fact, Miller et al also cite one of my respondents' firms, Piramal or Sarvajal Water in their article exhorting researchers to consider emotions in social entrepreneurial behaviour.
entrepreneurship as “a process involving the innovative use and combination of resources to pursue opportunities to catalyze social change and/or address social needs.” And like social innovation which is found cutting across multisectors, Bornstein (2004) argues that social entrepreneurship is equally possible in the nonprofit, public, and private sectors. Social enterprises are deemed to consist of different hybrid kind of organizations that exist somewhere in the middle of the “purely philanthropic” at one end to “purely commercial” on the other (Dees 1998).

Previously conceptualizations of social entrepreneurship failed to adequately consider the context within which they operate (Weerawardena & Mort 2006). Weerawardena and Mort argue that since social entrepreneurship seeks to result in an organization that achieves a sustainable competitive advantage, it should be conceptualized within the broader competitive environment within which it operates. Consequently they find that social entrepreneurship's drive for sustainability is highly influenced and shaped by environmental dynamics. Although there has been increased understanding over the last few years on these contextual dynamics as I shall refer to shortly, there is no work on how innovation is understood by social entrepreneurs who operate under both institutional voids and resource scarcity.

So social entrepreneurs are especially relevant to my thesis since we know little about how they conceptualize innovation in contextual circumstances marked by extremes of poverty, institutional complexities, and resource scarcity. Social entrepreneurship is challenging due to the nature of markets and contexts in which it is practiced (Mair & Marti 2006; Miller et al 2012). And the focus on social entrepreneurs is particularly interesting because social entrepreneurs face two double edged challenges. One, they function within contexts where markets are perceived to have failed (McMullen 2011) or there is a lack of

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2 However what is missing in this definition is the creative use of institutional complexities.
institutions leading to institutional voids (Dart 2004; Haugh 2005; Seelos & Mair 2005; Austin et al. 2006; Mair & Marti 2009; Mair, Marti and Ventresca 2012). Second, they have to function in contexts where there is lack of resources devoted to social enterprise and innovation, such as capital, knowledge or skills in the workforce (Mulgan et al. 2007). And beyond this, they also have to innovate in environments where their prime beneficiaries themselves reside in environments of poor distribution infrastructure and do not have adequate resources to afford relatively higher end solutions (Prahalad 2005).

There exists much work on social entrepreneurship in resource constrained environments. A social entrepreneur whose dual pursuits of social return and financial sustainability (Austin et al 2006), may find him/herself challenged by lack of access to resources, more so than commercial entrepreneurs, due to the conflicting goals of traditional for profit investors and traditional charitable grant makers (Desa 2011). The taken-for-granted schema and beliefs of mainstream resource providers are often in direct opposition to the goals of a social venture (Gair 2005; Koch & Caradonna 2006). Yet, Gundry et al 2011 contend that social entrepreneurship actually flourishes in resource-constrained environment.

It is also widely believed that social entrepreneurship typically emerges in contexts where markets may have failed to some extent (McMullen 2011) or where there are institutional voids (Austin et al. 2006; Dart 2004; Haugh 2005; Mair & Marti 2009; Miller et al 2012; Seelos & Mair 2005). The challenge of reconciling competing objectives by social entrepreneurs is exacerbated within contexts of institutional voids (Dees 1998; Mair & Marti 2009). On institutional voids, Arend (2013) criticizes Miller et al's work for mainly considering contexts where institutions are not broken. According to Arend, this actually runs opposite to expected situations where social entrepreneurship is more suitable. Arend

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3 Miller et al. (2012) try to bring in emotions into the conversation on motivational incentives for social entrepreneurs.
contends it would be more appropriate for Miller et al. to have theorized about how social entrepreneurship arises where institutions are broken, inefficient, or non-existent and about what factors such as networks, resources, and skills are more important, than emotions, in making the venture successful. A view exists in institutional voids literature that sees social enterprises as created to satisfy underserved demand for welfare provision in less developed institutional settings (Estrin, Mickiewicz, & Stephan 2011). Social entrepreneurs assume risks of launching new enterprises but also often assume risks associated with having to build new institutions needed to support the venture (Dacin, Dacin, & Matear 2010; Miller et al 2012). Estrin, S., Mickiewicz, T., & Stephan (2011) propose that while commercial entrepreneurship is primarily influenced by formal institutions, social entrepreneurship is linked to the levels of institutional voids as well as social capital.

In the next section I draw on the institutional stream of social entrepreneurship and then the resource constrained stream. In the institutional stream, studies look at how social entrepreneurship may occur in spite of existing institutions or lack thereof. Such processes that challenge and change institutions may help create new markets. In the resource-constrained stream of the literature studies look at how social enterprises acquire and use limited resources to fulfil their social missions.

2.5 Institutional voids

There is emerging literature on social entrepreneurship from the institutional perspective (Antal 2006; Mair & Marti 2006). One perspective is that social entrepreneurs often try to fulfil a social need that is unmet due to failures of the institutional ecosystem (Desa 2009). Estrin et al (2011) test whether according to institutional void theory (Dacin et al. 2010; Mair & Marti 2009), deficiencies in the provision of social goods that stem from
lack of strong formal institutions may lead to greater social entrepreneurial activity. Another perspective is that the creation of a start-up itself may lead to changes in existing institutional arrangements (Mair & Marti 2006; Sarasvathy 2006). Given the little understanding we have of institutional change and also the enabling role of institutions, Mair and Marti (2007) suggest that social entrepreneurship can help us to understand how institutional voids serve as opportunity spaces for institutional entrepreneurs.

Institutional theory as it pertains to firms draws broadly from two strands. One draws mainly from economics (North 1990), whereby firm decision making and action take place in response to political and governance related dependence and uncertainty. Second draws from sociology (DiMaggio & Powell 1983), according to which firms gain legitimacy by conforming to normative and regulatory pressures. Organizations adapt to the prevailing beliefs, norms, and rules of the environment (DiMaggio and Powell 1983; Meyer and Rowan 1977). Institutions mainly denote shared conceptions and constraints that shape interaction which constitute the rules of the game for doing business and can be defined as the humanly derived constraints that structure how humans interact. These constraints can be formal constraints as in the case of formal rules, laws, and constitutions, or they can be informal constraints as in the case of norms of behaviour, conventions, and codes of conduct (North 1990). Institutional concerns such as legal recourse and political structure are global concerns for anyone instituting change and innovation in institutionally complex contexts (Mair, Marti and Ventresca 2012). Yet, perhaps for these challenges, these are the environments where social enterprises look to provide solutions for and operate in (Mair & Marti 2009; Sarasvathy 2006).

In contrast to well developed institutions, institutional voids are defined as the lack of institutional facilities, norms, and regulations needed for a well functioning economy (North 1990). Many nascent and developing markets fail to some extent in providing necessary
institutions to support basic business operations such as regulatory systems, contract-enforcing mechanisms, financial markets, and even supply-chain infrastructure such as roads, ports, and transportation. All capabilities require institutional backing such as regulatory, health, education, and perhaps the most important, financial institutions and resources. For instance, Johnson et al (2003) mention that in order to build competence and innovate it is important to establish institutions that enhance order, trust and predictability in the life of individuals and in the workings of firms and other organizations.

More recent work has critiqued the “voids” in institutions as not being entirely empty spaces. The lack of efficient institutions suggests that alternative and perhaps more restrictive institutional arrangements are in place (Puffer, McCarthy, & Boisot 2010; Mair, Marti, and Ventresca 2012). For instance, Mair, Marti and Ventresca (2012) suggest local institutions with community or religious logics can be very powerful shapers. So on the one hand, economic institutionalists suggest that the absence of Western notions of market efficiency enhancing institutions leads to institutional voids, and on the other hand sociological institutionalists suggest that other forms of formal or informal institutions lead to institutional complexities, involving both formal and informal institutions that can pose both a challenge as well as opportunity for innovation.

Social entrepreneurship can be viewed as challenging where basic institutional infrastructure may not be in place (Miller et al 2012, Arend 2013). On the one hand, some scholars argue that filling institutional voids raises a serious challenge to social entrepreneurship because it often requires individuals, who have little formal power, to act as agents for change in both market and nonmarket activities (Arend 2013). On the other hand, despite this challenge, other researchers argue that social entrepreneurs view nonexistent markets and institutional voids or complexities as opportunities rather than threats (Dutton 1993). George, McGahan, and Prabhu (2012) posit that constraints and voids can be reframed
whereby they are assumed as inputs to create opportunities. And the enabling role is particularly evident in the domain of social entrepreneurship (Desa 2011).

Mair and Marti (2007) argue that institutional theory largely assumed the durability and stability of institutions, one in which institutions primarily constrain behaviour and one in which there is a circumscribed role of entrepreneurial action (DiMaggio & Powell 1991; Scott 2001). For instance, Meyskens et al (2010) suggest that social entrepreneurship is not a unique field as it shares common characteristics with commercial entrepreneurship. Social entrepreneurs develop innovative solutions to social problems through entrepreneurial activity (Dees 1998; Short, Moss, & Lumpkin 2009). Consequently, most research on entrepreneurship has assumed that the findings from Western contexts in terms of institutional conditions are applicable worldwide to entrepreneurs in different countries (Desa 2011).

Institutional conditions, though, differ across nations (Van Agtmael 2007), and even within nations (Thun 2006). For instance Child and Lu (1996) argue that the economic reform of large state-owned Chinese enterprises moved very slowly because of complex material, relational, and cultural constraints. Especially in emerging economies, the development of market institutions has been even slower and more difficult (EBRD 1998) which has led to missing institutional features such as shortage of skilled labor, thin capital markets, and infrastructure problems (Hoskisson et al 2000). Hoskisson et al (2000) posit since government and societal influences are stronger in emerging economies that are in the early stages of market emergence than in developed economies, institutional theory is preeminent in explaining impacts on enterprise strategies. For instance, Loveridge (2006) explains how political governments built upon their existing relationships with strong family business groups to fill institutional voids in return for supportive protectionist policies to achieve import substitution and export led growth. However as markets mature, transaction
cost economics and, subsequently, the resource-based view become more important in explaining impacts on enterprise strategies. Hence, the assumption that findings from Western or developed contexts are applicable worldwide to entrepreneurs fails to explain how entrepreneurs in conditions of institutional or resource constraints (as viewed through the Western lens) or in conditions of institutional complexities as in Mair, Marti, and Ventresca (2012), are able to develop ventures and sometimes even scale. There exist several examples of social entrepreneurship in emerging and developing countries (c.f. Desa 2011) which suggest that start up ventures can survive despite the lack of institutional support (Bornstein 2004; Bornstein and David 2010; Desa & Kotha 2005; Sarasvathy 2006; Mair & Martí 2009). If more attention is paid to entrepreneurial approaches in constraints, we may be able to in turn better inform research in the more mainstream innovation and entrepreneurship domains (Desa 2011; Ahlstrom 2010; Ahlstrom, Chen, & Yeh 2010).

In light of mainstream innovation and entrepreneurship literature, institutional theory also informs how organizations get access to resources (Aldrich 2003; Scott 2001). Prahalad (2005) alludes to both institutional concerns as well as resource scarcity for the process of innovating for the base of the pyramid, a market segment many social entrepreneurs seek to address. \(^4\) Efforts for resource mobilization can be facilitated by mechanisms (Desa 2011) of legitimation (Suchman 1995), control (Pfeffer & Salancik 1978), connections and negotiation (Begley, Khatri, & Tsang 2010; Peng, Wang, & Jiang 2008) and inspiration and ceremony (Meyer 1983). Mair and Marti (2007) conceptualize social entrepreneurship as a parallel process of resource and institutional bricolage. Bricolage, sometimes referred to as making do to make the most of resources on hand (Baker & Nelson 2005; Mair and Marti 2007), serves

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\(^4\) The base of the pyramid is presented as a large consumer segment that poses challenge for multinational corporations (Prahalad 2005), entrepreneurs (London and Hart 2004), and governments (Sachs 2006) to provide affordable solutions that help mitigate poverty and its consequences. Prahalad encourages reducing dependence on resource as well as rethink infrastructure comprising broader architecture of systems.
as a mechanism through which social entrepreneurs can develop an organizational resilience to deal with institutional constraints and be able to address a social need (Desa 2011).

Both entrepreneurship and institutional scholars have described opportunity creation as a process of ‘making do’ by recombining elements on hand (Mair and Marti 2007). Entrepreneurship scholars believe that entrepreneurs create new opportunities through the recombination and transformation of resources that already exist (Baker and Nelson 2005). Some scholars have looked at weak, uncertain and emergent institutional environments to be conducive to bricolage activity (Desa 2009). Later work by Desa (2011) empirically tested the relationship between institutional theory (Hitt, Ahlstrom, Dacin, Levitas, & Svobodina 2004; Scott 2001; Thornton & Ocasio 2008) and resource mobilization for social entrepreneurship. Here Desa conceptualizes institutions as resource gatekeepers and bricolage as a form of resource mobilization. Institutional scholars believe that when confronted with no resources, entrepreneurs can use institutions that already exist in unintended ways to create new institutions and resources (Campbell 2004; Lanzara 1998; Stark 1996). For instance, Lanzara (1998, p.28) writes that "institution building often occurs not on the ruins but with the ruins of the old regime, as available resources are deployed to respond to emerging practical dilemmas". Mair and Marti (2007) try to bridge these schools of thoughts by referring to this sort of bricolage as making do with both resources and institutions at hand.

Based on structure-agency theory (Giddens 1984), both the social enterprise as agent and the institutional environment as structure can have recursive effects on one another (Barley & Tolbert 1997; Thornton & Ocasio 2008). In the process of accessing resources from the institutional environment, social enterprises may also enact institutional change (Campbell 2004). Consequently, Mair and Marti draw upon the entrepreneurship and institutional schools of thought to suggest that both resource and institutional improvisation
are carried out by social entrepreneurs. For those entrepreneurs who focus solely on resources, may find that the social structure impedes access or use of these resources by the target group. And those entrepreneurs, who focus solely on institution building, may find the process challenging should they not be able to mobilize necessary resources. I later find in chapter 5 that social entrepreneurs focus on resources while investors on institutional concerns.

This takes us to the next section, i.e. of resource constraints. Social entrepreneurs confront severe resource constraints when trying to fulfil needs not fulfilled or even recognized by existing institutions (Desa 2011). However, in spite of this challenge of resource constraints, case studies suggest that social enterprises still survive and perhaps even thrive in penurious environments (Desa 2011; Kodithuwakku & Rosa 2002; West, Bamford, & Marsden 2008).

### 2.6 Resource constraints and scarcity

Resources are crucial in the development of a new venture (Pfeffer & Salancik 1978, Penrose 1959). For instance, these are needed for the acquisition and recombination into a product or service (Wernerfelt 1984, Shane 2003). Resource scarcity theory first mainly arose in the franchising literature (Tracey and Jarvis 2007) which posits that firms’ motivation to franchise stems from a shortage of the resources required for expansion (Oxenfeld and Kelly 1969). A firm’s innovative ability depends on being able to access tangible resources but also manage partnerships and firm knowledge flows (Tracey and Jarvis 2007). I will be widely referring to resource constraints, but interchangeably will refer to resource scarcity to mean

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5 Intuitively, social entrepreneurs may be more concerned about institutions, perhaps specifically because of the lack of institutions, than are commercial entrepreneurs who otherwise expect efficient market institutions to be widely available.
either the shortage of resources in the environment available to firms and consumers. An environment is resource constrained if it provides new challenges, whether opportunities or problems without providing additional or new resources (Baker and Nelson 2005).

As discussed in the preceding section, institutional constraints that hinder market exchange such as lack of property rights or specialist intermediaries are prevalent in poor or emerging economies (North 1990; Peng 2003). On top of institutional voids such as the capacity of many governments to deal with the number of issues it can pursue, Stiglitz (2001) and Sachs (2005) allude to severe resource constraints in the contextual environment, such as those in poor countries given the penurious nature of basic facilities such as infrastructure, literacy, access to literacy, medical care, retail chains, communication networks, transportation, housing, and sanitation. But Stiglitz (2001) posits that all societies are resource-constrained and poor countries even more so. (I later find in chapter 5 social entrepreneurs manipulate institutions in order to acquire necessary resources, i.e. concerns for institutions and resources overlap.)

These environments can’t be considered as natural arenas in which traditional entrepreneurs and companies compete (Seelos and Mair 2007). Yet, the absence of many important products and services in poor countries requires companies to build new markets (Seelos and Mair 2007). The recent global financial uncertainty calls for the interests of businesses and societies to converge on addressing economic and social ills such as poverty. For instance, many South Asian firms do not just look at the scarcities and deprivations of the BOP, but also acknowledge the resources and capabilities of the BOP which can be harnessed through partnerships (Nakata 2012; Bhatti, Khilji, and Basu 2013). Partnerships help acquire resources for both commercial and social enterprises (Porter and Kramer 2002; Preston and Donaldson 1999). And even BOP research has emphasized the role of partnerships (London and Hart 2004) in dealing with resource scarcity (Seelos and Mair 2007). In this effort, new
product development and innovation offer a hopeful path forward (Nakata 2012). Gundry et al (2009) argues that the act of innovating through social entrepreneurship for social impact relies on creatively using resources at hand (bricolage) and on a set of institutional and structural supports which may facilitate or impede innovation (innovation ecology).

For this study of innovation as viewed by social entrepreneurs, the procurement, control and combination of labor, skills, and material is crucial to the creation of new products and services (Schumpeter 1934; Shane & Venkatraman 2000). Resources and associated limitations and resourcefulness are central concepts in the study of entrepreneurship (DiDomenico, Haugh, and Tracey 2010). Resources are varied but largely include i) technology in the form of machinery, hardware and software, ii) labor in the form of employees, contractors, volunteers, or friends and family), and iii) skills in the form of knowledge to institute efficient processes or new technologies (Desa 2009). Three management theories explain access to and utilization of resources for innovation – resource dependence theory, resource based view, and bricolage.

2.6.1 Resource dependence theory

Despite a period of waning, Davis and Cobb (2010) cite evidence that interest in resource dependence theory (RDT) is on the rise. They explain this rise on the similar status of current global affairs with those that were present in the period in which Jeffrey Pfeffer conceptualized the RDT: Economic crisis, social activism, and dissatisfaction with political leadership -- all of which according to David and Cobb, make core issues in RDT of power and dependency more salient. In fact, they claim that now is an opportune time for revitalizing resource dependence theory for a different economy.
Under the resource dependence theory (Pfeffer and Salancik 1978), resource scarcity is a dimension of the environment where objective resource constraints exist (Desa 2008). That is, resources are objective in the sense of being defined independent of the organizations that are embedded in that resource environment. Hessels and Terjesen (2010) explain that a major principle of resource dependency theory is resource scarcity since multiple organizations compete for the same or similar set of what are scarce resources. While it is assumed that firms have to have the resources needed, but literature also tells us that firms often start and survive despite resource constraints (Mahoney & Michael 2005, Kodithuwakku and Rosa 2002).

On the one hand, based on resource-dependence theory a lack of resources or resource constraints can hinder a firm’s ability to grow (Desa 2009). This is because according to the theory firms acquire resources from the environment and firms’ performance and growth is dependent on those resources available in the environment. The assumption here is that all firms perceive and elicit the same benefits and services from the same resources. This is why entrepreneurship researchers have largely assumed that the environment has resources to provide to the venture. Therefore, literature has focused on how to improve resource seeking to improve the probability of success (Aldrich 1999; Shane 2003). Apart from a few authors (cf. Kodithuwakku & Rosa 2002 and Starr & MacMillan 1990), most have neglected how ventures operate in penurious environments where they have little access to resources. But resource dependence theory suggests that in penurious environments, whatever resources are available are judged as useless or substandard and are therefore available cheaply or even freely without accruing benefit to firms.

On the other hand, based on resource-based view or theory, a lack of resources or resource constraints means that firms can still develop and grow. This is because firms respond differently to the same set of resources in the environment and get different services
from the same set of resources (Penrose 1959; Wernerfelt 1984). The assumption here is that a resource that may seem worthless to one firm can in fact be deemed to be rather valuable by another firm.

2.6.2 Resource based view

The Resource Based View (RBV) of the firm helps to explain how organizations develop and maintain competitive advantage using firm-specific resources and capabilities (Penrose 1959; Wernerfelt 1984). Under the resource based view theory, firms are unique in their embeddedness to a resource environment and make up peculiar resources, material, labor, and skills, from objective resources available in that environment. While one resource may be worthless to one firm, it may be viewed as valuable to another. The theory sheds light on why certain firms grow and others don’t within the same environmental context.

In RBV a firm is a collection of resources (Penrose 1959; Wernerfelt 1984) which are used as inputs to produce outputs for value creation and sustainable competitive advantage (Barney 1991; Grant 1991; Peteraf 1993). Barney posits that resources “enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness” (1991, p. 101). Each firm combines resources in different ways that help to differentiate its capabilities from other firms (Peteraf 1993). RBV takes into account both tangible and intangible resources (Tracey and Jarvis 2007). Barney and Arikan (2001, p 138) define resources as the “tangible and intangible assets firms use to conceive of and implement their strategies.” Barney (1991) explains tangible resources include financial, physical, human capital, and organizational resources:

“Physical capital resources include the physical technology used in a firm, a firm’s plan and equipment, its geographic location, and its access to raw materials. Human
capital resources include the training, experience, judgment, intelligence, relationships and insight of individual managers and workers in a firm. Organizational capital resources include a firm’s formal reporting structure, its formal and informal planning, controlling, and coordinating systems, as well as informal relations among groups within a firm and between a firm and those in its environment” (p. 101).

Intangible resources are explained as (Tracey and Jarvis 2007) comprised of organizational styles, values, and leadership (Grant 1991) as well as intellectual property rights, contracts, reputation, trade secrets, knowledge, and culture (Hall 1992).

Theories based on Resource Based View of the firm are grounded in mature and competitive environments (Seelos and Mair 2007). According to RBV firms can make profits by either acquiring resources at below cost of their financial worth or by converting resources into capabilities that benefit customers but also allow firms to capture value from those capabilities (Makadok 2001; Sirmon, Hitt, & Ireland 2007). But in markets that face large-scale poverty, the environment is very different (Seelos and Mair 2007) since resources from capital markets, product markets, and labor markets are scarce but also are mainly controlled by a few large organizations (Khanna & Palepu 1997).

The RBV focuses on the firm as the level of analysis and its resources as the unit of analysis. While an organization either owns or accesses assets or inputs to the production process (Helfat and Peteraf 2003), capabilities involve the capacity or ability to use these resources to achieve organizational goals (Helfat and Lieberman 2002). Moreover, dynamic capabilities are presented as explanations for understanding what makes firms effective at the development of new products (Teece, Pisano, and Shuen 1997; Rindova and Kotha 2001).

As in previous work by Tracey and Jarvis (2007), this work studies social entrepreneurship through a Resource Based View perspective and as mainstream entrepreneurship literature, supports the understanding that social entrepreneurs rely on
resources for value-creation. The RBV is useful to understand social enterprises since RBV focuses on inputs and resources, and not just on performance output characteristics and social enterprises in the context of the RBV are viewed as competitive organizations which combine and convert acquired resources to create social value (Tracey and Jarvis 2007). Unlike previous work, this study simultaneously uses the institutional theory perspective in studying social entrepreneurship and posits that resources alone are not sufficient for value-creation.⁶

2.6.3 Bricolage

While the former two theories offer insights on value appropriation, bricolage offers insights on value creation (Desa 2008). Entrepreneurship scholars have analyzed reactions to resource scarcity through the concept of bricolage (Baker & Nelson 2005; Garud & Karnoe 2003; Johannisson & Olaison 2007). Bricolage is frequently solicited to explain how firms may make use of resources where others do not, i.e. how firms "construct something from nothing" (Baker & Nelson 2005). According to pioneer scholar of bricolage, Lévi-Strauss (1967, p. 17), bricolage refers to the process of “making do with what is at hand”. Baker and Nelson define bricolage as “making do by applying combinations of resources already at hand to new problems and opportunities” (2005, p.33). According to Baker and Nelson, in the original bricolage conceptual framework of Levi Strauss, firms make do and use combinations of resources for new purposes than those the resources on hand were meant for.

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⁶ There have been efforts to merge RBV with Contingency theory, the latter arguing that firms which are able to align internal organizational variables with external variables will perform better than counterparts (Woodward 1958; Thompson 1967; Lawrence & Lorsch 1967a). Brush and Artz (1999) used the term “contingent resource-based theory” as they found the resource-based view was insensitive to the firm’s context. They therefore, merged the contingency theory argument into resource-based view to offer that the value of firm resources is influenced by the environment.
in the first place. However, Levi-Strauss (1967) uses bricolage to also mean combining local cultures in new ways even though the term has evolved to largely embrace material changes. With the growing interest in social entrepreneurial behaviour, I will outline later how some scholars are introducing the social aspect of bricolage to acknowledge the importance of sensitivity and syncretism in handling local cultures, customs, and institutions. Bricolage can be used in two ways by entrepreneurs. One, it could be used as a mechanism that enables the entrepreneur to identify an opportunity and second, it could be used as a mechanism that enables the entrepreneur to enact the opportunity.

What is particularly relevant to this study is that entrepreneurs use bricolage in penurious environments (Baker & Nelson 2003). Baker and Nelson 2005 studied 29 resource-constrained entrepreneurial firms and cited bricolage as a process by which these firms create services. Further, Baker, Miner & Eesley (2003) and Baker & Nelson (2005) suggest bricolage often occurs in the absence of institutional support with particular emphasis on entrepreneurs as actors (Chao 1999; Lanzara 1998; Stark 1996). Resource constraints can result in innovative ways to use existing resources and to acquire new resources (DiDomenico et al 2010). Some ways by which commercial entrepreneurs manage resources in resource-poor environments include the use of networks (Starr & MacMillan 1990; Peterson 1995), bootstrapping (Harrison, Mason, & Girling 2004; Godin 1998), effectuation (Sarasvathy 2001), and bricolage (Levi-Straus 1967). Although both commercial and social entrepreneurs operate under varying conditions of resource scarcity, social entrepreneurs particularly have to function under extreme versions of this scarcity. Commercial entrepreneurs generally target markets that have capacity to support growth and expansion while social entrepreneurs purposely target markets that are characterized by few

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7 But not limited to entrepreneurs -- for instance, Halme et al's (2012) work on large MNCs shows how intrapreneurial bricolage can help achieve innovation for inclusive business.
resources and function poorly (DiDomenico et al 2010). Social entrepreneurship offers further opportunity to investigate resource scarcity or resource constraints (DiDomenico et al 2010) and institutional pressures (Douglas 1986) such as weaknesses in the macro structural environment. The environment in turn is one in which the constraints of institutional rules and structures force social entrepreneurs to use and exchange resources dynamically and help them to put together their own bundle of resources and repertoire of strategies and activities, for instance through bricolage (DiDomenico et al 2010).

Bricolage has economic and social domains which means it may be especially suited to understanding processes of resource acquisition in social enterprises that have both commercial and social value under conditions of resource scarcity. Bricolage can help in opportunity recognition to see the unused potential value in resources and thereby can help to lower costs, reduce the risks in financial expenditure, and increase return on assets (DiDomenico et al 2010). And they, DiDomenico et al 2010, draw on theories of bricolage to explore empirically resource acquisition among social entrepreneurs. They find that the social entrepreneur acts as a social bricoleur who makes do and creates something from nothing while continually adapting and responding to the environment. And within this environment they acknowledge that although social enterprises can be found in many diverse contexts, they explain that they are most likely found in communities characterized by limited access to resources (Peredo & McLean 2006) as well as in communities facing lack of public facilities and services (Porter 1995).

The first construct of bricolage as ‘making do’ or recombination into novel ways is found in several accounts of social entrepreneurship (Zahra, Gedajlovich, Neubaum, & Shulman 2009). This recombination of resources in bricolage is akin (DiDomenico et al 2010) to Penrose’s (1995) notion of the idiosyncratic uses of resources. Baker, Miner, and Eesley (2003, p. 256) invoke bricolage as “a construct frequently used to describe the
resource set invoked by improvisation.” The second construct of bricolage is a ‘refusal to enact limitations’ (Baker and Nelson 2005) which helps to counteract conventional limitations imposed by institutional or political settings and the available resource environment (DiDomenico et al 2010). The third construct of bricolage follows on from the previous one as ‘improvisation’ or adaptation of working and creative thinking in order to counteract environmental limitations (Miner et al. 2001; Weick 1993). This third construct is widely evidenced in accounts of social entrepreneurship (DiDomenico et al 2010).

For purposes of this dissertation, the concept of bricolage as an enactment of opportunity is especially important as it pertains to social entrepreneurship for two main reasons (Desa 2009). First, social entrepreneurs often face severe resource constraints because access to philanthropic and capital markets is limited given the difficult contexts and circumstances in which they try to address social problems. For instance, social entrepreneurship is found in resource-constrained environments, from the typical vision of poverty stricken villages in India and Brazil (Bornstein 2003) to low income neighborhoods in the United States (Porter 1995). Second, social entrepreneurs try to do so in institutional contexts and circumstances that are not addressed or recognized by existing public or private institutions, i.e. they function in institutional voids (Desa 2009).

From the above outline of research in bricolage, we see it has helped to explain how entrepreneurs in general find and tap opportunities and resources. But with growing interest in how social entrepreneurs enact bricolage, I have shown how there have been attempts to introduce the social aspect of bricolage leading to idiosyncratic version of it, one you may call social bricolage (from social bricoleur). Such efforts have reintroduced the notion of improvising across and within cultures (Levi-Straus 1967) and brings forth the recognition that identification of, access to, and use of resources through bricolage takes place within larger institutional contexts.
2.6.4 Summary of resource constraints literature

In moving ahead, the theoretical takeaway is that resource dependency theory and institutional theory link the firm to the macro environment (Lewin, Weigelt and Emery 2004) while resource based view and bricolage theories acknowledge the availability of resources the firm to larger institutional settings (Seelos and Mair 2007; Levi-Strauss 1967). Whether bricolage is about making do, refusal to enact limitations, or improvisation to counteract environmental limitations, it takes place within or even because of larger institutional settings that affect identification of, access to, or use of resources within that environment (DiDomenica et al 2010). A major tenet of resource dependency theory is resource scarcity where multiple organizations compete for the same or similar sets of scarce resources (Hessels and Terjesen 2010). The resource based view instead focuses on the firm’s use of the resources available to it and consequently focuses on the firm rather than the macro environment (Lewin et al. 2004). Oliver (1997) argues that institutional theory plays an important role in understanding the context and process by which firms make resource choices. Bloodgood (2000), in line with Oliver’s (1997) suggestion, integrates institutional theory and the resource-based view of the firm to better understand the context and process of how and when a firm selects resources. In the next section I summarize how I identify an unexplored area in the literature which draws on innovation studies having dichotomously considered institutional voids and resource constraints separately. Instead we have seen that the social entrepreneurship literature suggests that both types of constraints impact innovation efforts by social entrepreneurs. This provides an opportunity to simultaneously use and merge theories of resources and theories of institutions to better understand how innovation is perceived by social entrepreneurs (and in future research how innovation is practiced).
2.7 Research opportunity: Merging innovation & social entrepreneurship under constraints

The preceding literature review refers to two main literature streams: Innovation Studies and Social Entrepreneurship. This review has helped identify an unexplored area of the literature (figure 1.1) to advance theoretical models of innovation (see for example Guillén 1994; Marinova 2001; Sarasvathy 2001; and Mair, Battilana, & Cardenas 2013) by bridging the literatures on innovation and social entrepreneurship through common concerns of institutional voids within institutional theory and of resource scarcity within resource dependency theory, resource based view and bricolage.\(^8\)

I find that the innovation literature (stream 1) looks at innovation under constraints either under institutional voids or resource scarcity. Few if any studies on innovation have combined the challenge of functioning under both simultaneous constraints of institutional voids and resource scarcity. But the social entrepreneurship literature (stream 2), argues that social entrepreneurs have to function and innovate in conditions marked by both institutional voids and resource scarcity. The markets in which social entrepreneurs function can be considered extreme environments given the penurious nature of basic facilities such as infrastructure, access to education, medical care, retail chains, communication networks, transportation, housing, and sanitation. So this study seeks to advance models and theory of innovation by bridging the literatures on innovation with social entrepreneurship and institutions and resources, specifically the lack thereof.

I cite now literature which supports my proposal to bridge the aforementioned literature streams and theories. Over the last 30 years or so, research using RDT has enjoyed

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\(^8\) In "Models of Management" Guillén (1994) outlines historical patterns in the adoption of the three major models of organizational management: scientific management, human relations, and structural analysis.
integration with several theoretical perspectives (cf. Hillman, Withers, and Collins 2009). But there is still potential to integrate RDT with other neglected theoretical perspectives. Hillman et al (2009, p.1418) write:

"The interaction of interdependent organizations and their environment is a dynamic, complex process requiring robust perspectives that can explain a broad range of outcomes. Thus, integrating RDT with other complementary perspectives may offer a more realistic perspective of this interaction."

The idea of merging resource and institutional based theories is not new, though still not very popular (Hillman et al 2009). It is possible to merge the two since resource dependency theory and institutional theory are similar in that both are concerned with the relationship between an organization and a set of actors in the environment (Hessels and Terjesen 2010). In both theories multiple external pressures constrain organization choice and in both organizations seek to gain legitimacy and acceptance through and by external stakeholders. The benefit is that the two theories have greater predictive power when used together (Sherer and Lee 2002).

For instance, citing institutional change and innovation in large law firms, Sherer and Lee (2002) integrate resource dependency and institutional theory to argue that resource scarcity drives, and legitimacy enables, institutional change. They look at resource constraints as a driver of innovation. They explain that RDT suggests that "organizations facing resource scarcities will seek to be more competitive in acquiring resources or to innovate in ways that allow them to make use of alternative resources." (p. 103) However they then draw from institutional theory to explain how the change is instituted rather than any notion of institutional voids. They continue to say, "It is here that institutional theory provides an important contribution. Through its notion of legitimacy, institutional theory helps to identify which organizations are most apt to be initial innovators and early adopters." (p.103)
Nevertheless, this early article merges resource dependency theory with institutional theory in a meaningful way to explain complex phenomenon, something this study also strives to do.

For our purposes, integrating RDT with the resource based view (RBV) of the firm (Barney 1986; 1991) and with institutional theory (DiMaggio and Powell 1983; Meyer and Rowan 1977) may be particularly enlightening and productive (Hillman et al 2009). Both RDT and RBV have a complementary focus on resources, and integrating these two theories can enable a consideration of both an externally focused perspective of how organizations obtain valuable resources (RDT) and an internally focused perspective of how organizations specify resource needs as well as how they integrate resources for idiosyncratic uses in order to gain competitive advantage. In relation to integrating RDT and institutional theory, we can gain greater insights on how institutional forces influence what form of resource dependency reducing strategies firms use as well as how firms’ efforts at shaping or circumventing institutional constraints influences how resources are sourced and used. And although RDT and contingency theory share a number of fundamental assumptions on the role of environmental uncertainty, yet these synergies have not been capitalized upon (Hillman et al 2009; for exception see Dess and Beard 1984).

In moving ahead, I use the terms resource scarcity and resource constraints interchangeably to connote both the low level of resources available to social entrepreneurs as well as the low level of purchasing power of downstream customers. Similarly, I use the terms institutional voids and institutional complexities interchangeably to connote both the lack of institutions deemed necessary for the market to function and also the acknowledgement that if these do not exist, then there are other institutions in place, whether supportive or detrimental to the operation of the market.
2.7.1 Innovation under constraints

A search of the literature shows there are few scholarly papers on innovation under institutional voids or resource constraints, let alone both constraints simultaneously. For instance, a search on databases Business Source Complete and Proquest revealed only two peer-reviewed papers using the search criteria [innovation AND ("institutional void" OR "institutional voids")]. Both papers reveal no empirical insight on innovation under these conditions. A similar search through both databases using the search criteria [innovation AND ("resource scarcity" OR "resource scarce" OR "resource constrain" OR "resource constrains" OR "resource constraint" OR "resource constraints" OR "resource constrained")]] revealed 48 and 227 results between the two databases. Many of these papers were in the field of environmental and development studies, but few if any were in organizational and management studies. Add the term social entrepreneur or social entrepreneurship in the preceding search criteria involving innovation and one of the two constraints and there are no results whatsoever.

Although resource-constrained start-ups and young firms do not have access to complex capabilities and investments to innovate (Aldrich 1999), nonetheless they often manage to engage in successful innovation (e.g. Arrow 1962). Generally, organizational studies have concentrated on the negative aspects of constraints in skills, time, and resources and focused on strategies to overcome these constraints (e.g. Agarwal, Sarkar, and Echambadi 2002; Rao and Drazin 2002). But another side of the resource constraints literature argues that fewer resources lead firms to more efficiently allocate resources (Starr and Macmillan 1990).

One of earliest works on innovation under resource constraints in organizational theory is by Nohria and Gulati (1996) which argues that the relationship between
organizational slack and innovation is curvilinear—too little slack is as bad for innovation as too much slack. Rao and Drazin (2002) examine how firms can overcome resource constraints on product innovation. But they focus on human resource constraints which are internal to the firm. They identify firms with resource constraints as those which are young or poorly connected: "We suggest that both young firms and poorly connected firms face resource constraints and are unable to grow through product innovation." (p.492) Nevertheless they find that these (human) resource constrained firms have lower rates of product innovation than their advantaged counterparts and therefore tend to recruit more from rivals to surmount these human resource constraints. Citing literature that claims financial resource slack supports creativity and innovation (Amabile 1988; 1996; Camison-Zornoza et al. 2004; Damanpour 1991; Gassmann and von Zedtwitz 2003), Hoegl, Gibbert, and Mazursky (2008) study under what conditions, financial resource constraints enable, rather than inhibit, the performance of innovation teams. They find support for new product development literature which has shown that resource-constrained projects can help create innovative products that are also successful in the marketplace (Goldenberg, Lehmann, and Mazursky 2001; Moreau and Dahl 2005). Closer to this work’s focus on innovation, Weiss et al 2011 provide evidence that even disruptive innovation outcomes can be achieved with constrained financial resources. This is, under certain conditions, supported by hypotheses testing on a sample of 94 innovation project teams from a variety of industries (Weiss et al 2011). Senyard, Baker, and Davidsson (2011) find that bricolage is an important pathway to innovation for such resource-constrained firms. In another study, Paanenen (2012) shows that firms under resource constraints tend to use external sources of knowledge in their search activities for innovation rather than internal ones while firms that are constrained by finance tend to search both internally and externally.
Consequently, most researchers have looked at the effect of financial resource constraints on innovation team performance (c.f. Rao and Drazin 2002; Weiss et al 2011; Paananen 2012). This suggests that there is potential to metatheorize and study resources beyond just financial resources as well as to move the level of analysis from teams to firms. It may be that firms have to be in an independent position to tolerate constraints from the external environment before earmarking such challenging projects to their internal teams. In some way, firms have to absorb the potential risk as well as to shield teams and provide teams with a supporting environment that fosters constrained challenges.

Katila and Shane (2005) use the contingent resource based perspective to explain innovation in new firms which are resource constrained. Katila and Shane’s (2005) study outlines empirical evidence that resource constraints may in fact be positive and enabling. In seeking to answer the question prevalent among organizational researchers whether firm newness hinders or facilitates innovation, they demonstrate that innovativeness depends on environmental characteristics. In particular they find that new firms are more likely to reach first sale and are less prone to abandon efforts to innovate even when confronted with more competitive, smaller, and less manufacturing intensive markets. They further address the question of under what environmental conditions does a lack of resources become useful and when it is constraining. They find that resource constraints in certain environmental conditions can be enabling, which is very relevant for this study. Their study tested how different types of environments changed the value of organizational resources. They provide evidence for the popular assumption in the dynamic capabilities (Teece et al. 1997) literature that it is important for firms to reconfigure resources as environments change. They corroborate Brush and Artz’ proposition (1999) that the value of resources depends on the environment. Moreover, as the performance of new firms depends on their respective environments, Katila and Shane (2005) suggest that the environmental context in which new
firms operate should be included in theories of entrepreneurship. For instance, in poor
countries, the value of meager and scarce resources as dependent on the environment may
help to explain the value of low cost inputs to the innovation process for many social
entrepreneurs.

For this study in particular, Katila and Shane’s work signals the importance of
considering not only the contingency based response of firms to a changing environment, but
also the actual nature of the environment in which firms seek to innovate and grow. One way
we can incorporate the environmental context in theories of entrepreneurship as they
recommend, but also in theories or models of innovation, is to draw from institutional theory,
something the innovation literature stream has not adequately done thus far.

Similar to Desa (2008) who finds scant literature on whether entrepreneurship in
resource constrained environments is different from conventional business
entrepreneurship, I find there is little or no literature on whether innovation in resource
constrained environments is different from mainstream innovation. Furthermore there was
superficial acknowledgement in the development literature of the double edged problem of
institutional voids and resource scarcity, but few if any work on how innovation takes place
within both simultaneous challenges. This is surprising given the intuitiveness of both
constraints occurring at the same time and of the opportunity this promises to innovation
scholars to study interesting and “extreme” contexts.

By using a combination of resource related and institutional theories we can go a
further step and link innovation activities of the firm to the institutional environment and to
the resources available therein. But as covered earlier, if we wish to study innovation under
both institutional voids and resource scarcity, then an ideal starting point would be that
offered by the field of social entrepreneurship, which is deemed in the literature to occur in contexts marked by both institutional voids and resource scarcity.

2.7.2 Social entrepreneurship under constraints

The focus on social entrepreneurs is particularly interesting because social entrepreneurs face two double edged challenges. One, they function within a field where there is a lack of institutions and second lack of resources devoted to social enterprise and innovation (Mulgan 2007). Further, they have to innovate in environments where beneficiaries themselves reside in environments marked by institutional voids (Khanna and Palepu 1997; 2006) and do not have adequate resources (Prahalad 2005). However there is no work on how innovation is understood by social entrepreneurs who operate under both institutional voids and resource scarcity.

Dart (2004) find that social entrepreneurs frame goals around resource scarcity which are congruent with their nonprofit or prosocial values. Some social entrepreneurs see resource constraints as an opportunity rather than a constraint – Dart quote one of their respondents as saying: "Resource constraint is something that we wouldn’t talk about. It is almost an invitation to slack off. It’s an invitation to say, ‘It’s the government’s fault.’ Negative stuff. We don’t have resource constraints, we have resources. What’s the best use of the resources we’ve got? We know in our heart of hearts that we haven’t got [enough] money . . . but that’s irrelevant.” (p.301)

Social and commercial entrepreneurship are similar in many ways such as the necessity to bear uncertainty and invest resources for the venture creation process (Estrin et al 2011; c.f. Dacin et al. 2010; McMullen & Shepherd 2006, Meyskens et al 2010; Reynolds
2011; Shane 2003). However social entrepreneurs appear to use resources more efficiently through processes such as bootstrapping, bricolage and building partnerships (e.g. Corner & Ho 2010; DiDomenico et al. 2010; Mair & Marti 2009). They also rely more on informal relationship-based exchange for knowledge, contacts and resources than on employment (Estrin et al 2011).

Estrin et al (2011) provide a more differentiated view of institutional voids on social entrepreneurship. On the one hand they find support for the institutional void perspective that demand for social entrepreneurship may be enhanced by weak institutions. On the other hand they find that social entrepreneurship thrives in countries with strong institutional quality – a notion somewhat inconsistent with most institutional void perspectives. This suggests that although demand increases, the supply may not equally materialise.

Despite all that has been researched and published about social entrepreneurs and their relationship with innovation, we don't know how social entrepreneurs talk about innovation. We even don't know much about social innovation something we attribute to social entrepreneurs (c.f. Philips et al 2008; Pol and Ville 2009; Minks 2011). It is worthy to study not only what they do but how they talk about it. So the vocabularies they use and generate reveal insights on what they think about innovation.

Moreover, there is little work on how innovation is understood by social entrepreneurs who operate under both institutional voids and resource scarcity. Current studies have been unable to reconcile these challenges by analyzing entrepreneurial or large firm strategies. The closest paper that looks at both challenges is by Mair and Marti (2009) which shows how a specific case of social entrepreneurship acquires resources and employs bricolage to put them to use. The study design is limited in two ways. One, it involves a single unique case of social entrepreneurship with future research potential to extrapolate
analysis to several social entrepreneurs. Second, it focuses on entrepreneurship activities without differentiating aspects of innovation.

In other work Liu, Woywode, and Xing (2012) analyze how formal and informal institutions interact and their role in promoting innovation in high technology Chinese start-ups. In previous work, Liu (2011) investigates the influence of institutional voids on innovation in high technology ventures and argues that institutional voids might offer firms the opportunity to hone their skills in the face of global competition. While both cited studies involve innovation, neither looks at how social entrepreneurs innovate in the face of these contextual challenges or opportunities.

I hope the preceding section and others have adequately outlined the research opportunity that lies at the intersection of innovation studies and social entrepreneurship literatures, specifically in merging theories of institutional theory with resource theories as they relate to innovation and social entrepreneurship. This work does not seek to address how social entrepreneurs actually innovate. But an equally important concern this work tries to address is to understand how social entrepreneurs perceive and view innovation under constraints. I next describe the conceptual framework that incorporates much of the preceding theoretical streams to provide an analytical tool that can help analyze innovation as perceived by social entrepreneurs.

2.8 Conceptual framework

I have established the importance of understanding social entrepreneurship and innovation in the context of institutional voids and resource scarcity. Social entrepreneurs and innovators have to devise low cost strategies to either tap or circumvent institutional
voids and resource limitations to innovate, develop and deliver products and services to low income users with little purchasing power, often at mass scale (Bhatti et al 2013). The investigation of innovation as perceived by social entrepreneurs and within extreme contexts can be assisted by a conceptual theoretical framework that incorporates the different theoretical perspectives used to identify and justify the object of study.

A conceptual framework is a written or visual presentation that “explains either graphically, or in narrative form, the main things to be studied – the key factors, concepts or variables - and the presumed relationship among them” (Miles and Huberman 1994, p.18). I envisage a conceptual framework useful for this study keeping in mind the contingency perspective on the kind of environment where social entrepreneurs have to operate in: resource and institutional both upstream and downstream of their innovation activities. Additionally I use a value chain innovation perspective to analyze innovation inputs and outputs both upstream and downstream of the innovation process as encompassed under both institutional voids and resource scarcity.

I examine the perceptions of innovation among social entrepreneurs from a contingency perspective (Lawrence & Lorsch 1967; Woodward 1965) because of contingency theory’s postulation that decision-making depends upon various internal and external constraints or situational factors.\textsuperscript{9} Contingency theory is a foundational logic among management scholars that underpins many organization and strategic management theories. Its roots are based on Woodward (1965) and Lawrence and Lorsch (1967) who found from studying why different organizations had different organizational designs, that

\textsuperscript{9} However, a word of caution here on the use of contingency theory and resource dependency theory: In the original cited works by Woodward and Lawrence and Lorsch, the contingencies and resources were objectively measurable qualities shared by all concerned. But given the nature of research questions focusing on perceptions of social entrepreneurs, these contingencies and resources are to be seen as 'perceived contingencies' and 'perceived resources' by my informants.
there may not be "one best way" to enhance managerial and organizational performance. For our purpose, it has underpinned institutional theories on design and change (cf. Greenwood et al 2008; Hargrave and Van de Ven 2006; Reay & Hinings 2009; Thornton, Ocasio & Lounsbury 2012). Through the contingent lens, I analyze the boundary conditions within which processes and structures of innovation among social entrepreneurs hold. My research seeks to understand not only the broader conceptualization of innovation, but specifically and mainly under the external constraints that social entrepreneurs face. The above outlined literature streams suggest two main external constraints social entrepreneurs face, one of resources and the other of institutional conditions.

Another tool useful for examining the perceptions of innovation among social entrepreneurs is to visualize the innovation process in terms of value chain. Value chain analysis has been used to study a range of innovation questions (c.f. Kaplinsky and Morris 2001; Hansen and Birkinshaw 2007; Roper, Du and Love 2008; Dedrick, Kraemer, and Linden 2010). Hansen and Birkinshaw (2007) recommend "To improve innovation, executives need to view the process of transforming ideas into commercial outputs as an integrated flow rather like Michael Porter’s value chain for transforming raw materials into finished goods." (p.3). The innovation value chain is basically comprised of a recursive process of knowledge sourcing, transformation and exploitation (Roper et al 2008), thereby incorporating everything from inputs to outputs.

Value chain analysis is useful to identify mixed constraints which are either supply or demand driven, and occur either upstream or downstream of the value chain. Burg et al (2012) explore a new approach to reconcile the inconsistency in literature on how resource constraints affect opportunity identification by entrepreneurs. Previous studies show that resource constraints have mixed effects on innovation and opportunity identification by entrepreneurs. Sometimes, resource constraints lead to identifying more opportunities,
whereas in other cases, entrepreneurs see fewer opportunities. Burg et al make a distinction between supply and demand constraints and their relationship with supply and demand opportunities. Based on a quantitative study of 219 SMEs, they find that resource constraints direct the entrepreneur's attention toward opportunities inside the constrained domain rather than outside the constrained domain. What is specifically relevant for this study is that Burg et al's findings suggest that researchers should consider different types of resource constraints and different sources of opportunities simultaneously. I do so in this study by considering these mixed resource constraints which can pose either an opportunity or impediment to innovation.

Constraints can be faced by social entrepreneurs both upstream as well as downstream of the innovation process. Upstream, social entrepreneurs have to deal with institutional voids (Khanna and Palepu 1997) and complex institutional contexts (Mair, Marti and Ventresca 2012) as well as limited resources available as inputs to innovate. Downstream, social entrepreneurs have to create outputs to address the needs of the bottom of the pyramid i.e. the largest and poorest socio-economic segment of the population (Prahalad 2005) and have to find means to provide access to these outputs through various institutional structures and mechanisms. Resource scarcity also includes the inability of vast populations to afford the means to address not only wants but also needs (Seelos and Mair 2007). Some of these constraints might be viewed as threat, others as opportunities, depending on various environmental and behavioural factors.

In the "extreme resource constrained" contexts (Mair and Marti 2009) that social entrepreneurs often function in, resources may be scarce at all points of the value chain meaning that affordability is not just for the end market consumer but any firm wishing to employ another firm’s outcome as inputs to the process. The challenge for companies doing business, designing products and managing costs at the base of the pyramid market is that
customers are willing (London & Hart 2004; Prahalad 2004) but often not able to pay due to income constraints (Seelos and Mair 2007), which can be deemed as another form of resource constraint faced by service providers in these environments. I depict this as downstream resource constraints in the value chain framework. The unique social, cultural, and institutional characteristics of the BOP markets mean that traditional products, services, and management processes will not work for these BOP markets (Prahalad 2004). So affordability is not just a concern at the end point or outcome of innovation. Therefore I examine how resource constraints are faced both upstream and downstream for all users at any point of the value chain in conjunction with having to function within institutional complexities or voids.

DiMaggio and Powell (1983, 1991) developed institutional theory in the context of organizations and industries. Extending this to societal level, institutions are “the humanly devised constraints that structure human interaction” such as informal cultural norms as well as formal legal rules (North 1990, p.3). North’s formal and informal institutions are classified by Scott (1995, 2008) into regulative, normative, and cultural-cognitive. The regulative pillar includes state enforced laws for society; the normative pillar includes roles and expectations described by professional societies for specific groups; and the cultural cognitive pillar includes generally accepted beliefs and values shared among individuals. I look at these types of institutions as largely “soft” institutions.

However what is missing in this institutional theory perspective is infrastructure, what I think of as the “hard” institutions that enable markets to function such as ports, roads, energy distribution, schools, and hospitals. For instance, Tongia and Subramanian (2006) cite both soft as well as hard institutions. They suggest that the developing world is particularly deficient in infrastructure as well as capital market mechanisms. They compare commercial ICT solutions in the United States to developing world; in the former there are available
infrastructure and market mechanisms while in the latter the same institutional facilities are few or non-existent. Additionally, Ray et al 2004 find that resources and capabilities like technical IT skills, knowledge and infrastructure flexibility can affect operational processes. But they view infrastructure from the RBV perspective of infrastructure held or controlled by the firm. Other tangible infrastructure such as ports, roads, and training universities are often not controlled by firms, rather provided as public infrastructure for the public good. For this reason, I include the institutional theory perspective to differentiate between hard infrastructure assets which are controlled by the firm based on the RBV lens from those hard infrastructure assets that are not controlled by the firm based on the institutional theory lens, but nevertheless are needed for efficient market operations.

Consequently, by using the contingency and value chain perspectives, I propose the following conceptual framework on innovation under both institutional voids and resource scarcity as shown in figure 2.3:

<See figure 2.3, page 73>

i) Upstream there is a lack of resources in capital, skills and labor available to social entrepreneurs;
ii) Downstream clients or customers who themselves are resource deficient and have low purchasing power;
iii) Upstream activities lie in environments where there are institutional (soft) complexities or voids with regards to contracts, rules, trust, and legitimacy, and;
iv) Downstream there is lack of (hard) institutional supply-chain and distribution infrastructure such as roads, ports, and transportation.

This use of value chain analysis as a conventional analytical tool well grounded in management practice may help to shift the practise of innovation by social entrepreneurs from ‘odd’ case to convention. Although the unit of observation is the entrepreneur, the unit of analysis is the value chain through which the social entrepreneur seeks to innovate. The above conceptual framework is only a starting point of this fairly extensive work which seeks
to build models of innovation by empirically revealing the perceptions and views of social entrepreneurs on innovation broadly as well as under dual constraints of institutional voids and resource scarcity.

Models as abstract conceptualizations are used widely to make sense of how things are or will be and have been used widely, such as in economic models, policy models, business models, geographic models and biological models. But lessons learnt from econometrics models suggest that pure reductionism does not do justice to the complexity and plurality of realities. And these risks remain in this effort to frame innovation models from the perspective of social entrepreneurs. I refrain from purely economic models and focus more on conceptual models of innovation to better understand and comprehend the diversity of perspectives social entrepreneurs bring to innovation.

2.9 Other emerging literature

The approach I’ve taken here is to discuss mainly those works that justify the research questions, conceptual framework and analytical approach in merging relevant theories. All other relevant works, such as frugal innovation (Basu, Banerjee, and Sweeney 2013), reverse innovation (Govindarajan and Trimble 2012), grassroots innovation (Gupta 1998), inclusive innovation (George, McGahan and Prabhu 2012), jugaad innovation (Radjou, Prabhu, and Ahuja 2012), I bring in as discussion that draws from revelation of these concepts as findings from social entrepreneurs. From the title, it follows that frugal innovation is a major tenet of this work, but I do not cover frugal innovation or other emerging concepts in this literature review chapter. Although interspersed in findings chapters 4 and 5, I extensively discuss literature on frugal and other emerging concepts as part of integrative discussion in chapter 6.
The findings to be revealed in empirical chapters 4, 5 and 6 will help to contribute to theoretical frameworks that go beyond the current notion of social innovation as often attributed to social entrepreneurs in the literature. In the integrative discussion of chapter 6 I will show how the different types of emerging concepts; frugal, reverse, grassroots, inclusive, and jugaad relate or fit in with the two models of innovation which I empirically find from this research. To get us started towards the empirical chapters that address the questions that emanate in this literature review, I next outline the research methodology.
Figure 2.1: Literature sections discussed and their interconnections
Figure 2.2: Snapshot of literature cited

Literature Stream 1

**Innovation Studies**

*Eg. Schumpeter 1934; Rogers 2003; Abernathy & Clark 1985; Tushman & Anderson 1986; Henderson & Clark 1990; Guillén 1994; Sarasvathy 2001; Marinova 2001; Mair et al 2012*

under constraints

**Mostly Resource Scarcity**


RQ 1: How conceptualize?

RQ 2 & 3: under contingencies?

Literature Stream 2

**Social Entrepreneurs & Social Innovation**

*Eg. Bornstein 2004; Seelos & Mair 2005; Dees & Anderson 2006; Phillips et al 2008; Pol & Ville 2009; Kesselering 2009; Minks 2011; Bates 2011; Nicholls & Murdock 2012*

under constraints

**Institutional Voids AND Resource Scarcity**

*Eg. Dart 2004; Prahalad 2005; Haugh 2005; Austin et al. 2006; Seelos & Mair 2007; Mulgan et al. 2007; Desa 2009; Mair & Marti 2009; DiDomenico et al. 2010; Dacin et al. 2010; Estrin et al. 2011; Gundry et al 2011*

Figure 2.3: Conceptual framework
3 RESEARCH METHODOLOGY & DESIGN

3.1 Introduction

A review of the nature of research questions guides the choice of research methodology and methods (Bryman and Bell 2003; Creswell 2003; Punch 2005; O’Leary 2004; Maylor and Blackmon 2005; and others). However, the researcher’s assumptions of the nature of knowledge discovery or epistemology, and the nature of reality or ontology, affect the type of answers the researcher eventually ‘interprets’ (Creswell 1998; Guba & Lincoln 1994). Social science questions therefore reveal different answers depending on both the nature of the questions and which paradigm the researcher is inclined to use to achieve his or her aims and objectives.

I outline first the questions, aims, and review the assumptions I make in approaching these questions. Then I layout the sources of data and the methods used in analyzing data set for each question. The research questions and key aims of each question are summarized in table 3.1 while a summary of the entire research design outlined in this chapter is depicted in table 3.7.

<See table 3.1, page 98>
<See table 3.7, page 102>

3.2 Research methodology

The above research questions could be approached by any of post-positivism, constructivist, interpretivist, or phenomenological approaches. The epistemological and ontological stance of the researcher is marked by the paradigm of post-positivism and specifically critical realism as outlined in table 3.2. In this post-positivist philosophy of
This page marks the end of this dissertation