

On the Importance of Being Scrappy:

Entrepreneurial orientation and bricolage in social enterprises

By
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Abstract

On the Importance of Being Scrappy: Entrepreneurial orientation and bricolage in social enterprises

By Annika Voltan

Abstract: Social enterprises are hybrid organizations that create social value using market-based models. Social entrepreneurship (SE) as a process is increasingly seen as holding promise for tackling mounting social and environmental problems in a financially sustainable manner. While the research field of SE has grown substantially over the past 20 years, much more empirical work is needed to add to its credibility and validate theoretical propositions.

This thesis begins from the premise that SE is not a unique domain of entrepreneurship, but rather a context in which entrepreneurship happens (Chell, 2007; Dacin, Dacin & Matear, 2010). However, entrepreneurship constructs that have been applied in commercial settings are expected to manifest differently in SE given the resource-constrained environments within which they operate (Austin, Stevenson & Wei-Skillern, 2006). The analysis examines three entrepreneurship constructs that are prevalent in the study of entrepreneurship in for-profit firms: entrepreneurial orientation (EO), which consists of three sub-dimensions (innovativeness, risk-taking and proactiveness) (Covin & Slevin, 1989; Hughes & Morgan, 2007); entrepreneurial bricolage (making do and being creative with existing resources) (Baker & Nelson, 2005); and, economic productivity (Battilana, Sengul, Pache & Model, 2015). These constructs are studied in terms of how they affect perceived social impact (Brown 2005).

Based on a survey of 233 social enterprises in Nova Scotia, Canada, findings indicate that both EO and bricolage are predictors of social impact, and that when EO is studied as a uni-dimensional construct bricolage partially mediates the relationship between EO and impact. When EO is studied as a three-dimensional construct, only proactiveness is a significant indicator of social impact and its effect is fully mediated by bricolage.

This study makes several important contributions to the field. It offers empirical evidence to support the predictive relationship of EO on social impact. It also advances EO theory in social contexts by providing insights on the relationships of each dimension of EO on social impact. The mediating role of bricolage in the relationship of EO and social impact is a strong contribution for understanding organizational behaviours in social enterprises, and antecedents of social impact. Finally, the relative importance of proactiveness compared to other EO dimensions and the mediating role of bricolage in the relationship between proactiveness and social impact offers insights that have implications for decision-makers and practitioners.

December 20, 2019.

INTRODUCTION

We are a dynamic group of bootstrapping entrepreneurs who navigate chaos and embrace opportunity. We will not forget that being resourceful, nimble and humble make us who we are.¹

Social entrepreneurship (SE) is a growing area of interest in recent years as a potential way of addressing the social and environmental problems we collectively face. At a time when public sector resources are declining and traditional not-for-profit (NFP) organizations are struggling to survive, new, more entrepreneurial approaches to tackling social issues are being sought. Social enterprises have emerged as hybrid organizations that are more financially self-sufficient by way of their own revenue generation, but that are driven by a social mission. They are touted as a solution to addressing social problems in the face of resource constraints. However, despite their recognized potential, more empirical research is needed to better understand organizational behaviours in social enterprises and how they link to performance. The field of SE is a relatively new, but quickly growing domain. While research on this emergent organizational form has greatly increased over the past decade, empirical evidence based on large populations is still limited. The data and analysis in this thesis contribute to reducing this gap by studying a sample of 233 social enterprises in Nova Scotia, Canada.

This thesis explores the question: Do conventional entrepreneurship behaviours positively affect social impact in social enterprises? And, if so, which behaviours have a greater effect on social impact? Specifically, entrepreneurial orientation (EO) and its sub-dimensions (proactiveness, risk-taking and innovativeness) (Covin & Slevin, 1989), entrepreneurial bricolage (Baker & Nelson, 2005) and economic productivity (Battilana, Sengul, Pache, &

¹ From the Centre for Social Innovation in Toronto, Canada, in relation to their core value “Be Scrappy” (<https://socialinnovation.org/culture/>).

Model, 2015) are analyzed in relation to perceived social impact (Brown, 2005). These constructs have each been examined in commercial contexts and in isolation in social contexts. The contribution of this research lies in the model development and analysis of how these constructs lead to perceived social impact in social enterprises. As discussed throughout this thesis, research pertaining to performance in social enterprises is nascent – in part due to complications associated with the fact that social impact is context-specific and complex, making quantifiable, generalizable measures very difficult to identify. As a result, there are no universal metrics available for assessing social impact. Perceived social impact helps to address this issue since it enables data collection based on stakeholders' perceptions of how successful the organization is in meeting its goals. For the purposes of this research, the terms perceived social impact and social impact are used interchangeably to refer to the extent to which organizations create social value and achieve their social mission (Moss, Lumpkin, & Short, 2008) – in other words, their ability to improve the wellbeing of those they are working to serve. The subjective nature of social impact means that it is nearly always influenced to some degree by the perspectives of those working to assess it.

As will be explored throughout this thesis, measuring social impact is a complex endeavour due to the difficulties associated with its quantification (Austin, Stevenson, & Weiskillern, 2006). Social impact is distinct from quantifiable, output-based measures such as the number of beneficiaries served, the length of time beneficiaries are supported, the number of programs offered, etc. While these can be helpful in understanding the contribution of the organization, they do little to indicate the quality of the efforts and the broader impact on society. Social impact is also distinct from the financial performance of organizations such as their profitability, return on investment, or economic growth rate.

While EO has been theoretically studied in SE, far less empirical work has been conducted to validate propositions. Furthermore, little quantitative research has been conducted to understand how its dimensions individually affect social impact. Similarly, bricolage has been identified as a relevant construct for SE and some empirical work has been conducted, but no studies have been found that examine how EO, economic productivity and bricolage manifest together to affect performance in social contexts. In summary, three contributions of this research include:

- 1) Adding to the quantitative empirical base of knowledge in the emerging field of SE to validate the positive effect of EO and bricolage on social impact;
- 2) Building theory about how the dimensions of EO affect social impact in social enterprises, and particularly the relative importance of proactiveness; and,
- 3) Adding new insights to SE theory regarding the mediating role of bricolage in the relationship between EO and social impact.

The following sections offer more detail about what SE is and how it relates to the broader study of entrepreneurship. They are followed by an introduction to my own personal interests in the field, and research that preceded this thesis to help inform and shape the model developed for analysis. An overview of the thesis contents is provided in the final section.

1 Social Entrepreneurship

Today's organizations are facing a myriad of complex problems that necessitate flexibility, resilience, and visionary leadership. A combination of challenges including environmental stress and degradation; declining resource availability in the face of an increasing human population; and, the growing interconnectivity and pace of change of global social-

ecological systems, are leading to greater frequency of “threshold behavior” in key systems (Westley et al., 2011, p.526). These factors result in “wicked” problems that “have no closed-form definition, emerge from complex systems in which cause and effect relationships are either unknown or highly uncertain, and have multiple stakeholders with strongly held and conflicting values related to the problem” (Dentoni, Bitzer, & Pascucci, 2016, p.2). Organizations need to build capacity for operating in pluralistic environments, as well as anticipating and addressing a wide range of stakeholders.

This context of wicked problems calls for a more integrative role between business and society. While governments and NFPs have a long history working in the realm of social problems, more recently new organizational forms such as social enterprises have begun to fill systemic gaps. One of the first references to the “social entrepreneur” was published in 1991 and described it as those “private sector individuals who act as catalysts for change in the public policy process” (Moss et al., 2008, p.1). Since then, the notion of “social entrepreneurship” (SE) has generally moved beyond a scope limited to public policy and NFP organizations. Definitional debates surrounding SE abound; however, general consensus exists that it pertains to the application of entrepreneurship to contexts where the pursuit of a social mission is the key driver of activities. Put simply, SE is “entrepreneurial activity with an embedded social purpose” (Austin et al., 2006, p.1). The definition put forward by Mair and Marti (2006, p.37) is adopted for this thesis:

First, we view social entrepreneurship as a process of creating value by combining resources in new ways. Second, these resource combinations are intended primarily to explore and exploit opportunities to create social value by stimulating social change or meeting social needs. And third, when viewed as a process, social entrepreneurship

involves the offering of services and products but can also refer to the creation of new organizations.

The definition above speaks to the activities associated with enacting SE, which is distinct from the definition of social enterprises as organizations. The definition of social enterprise used to describe the organizations studied was adopted by the Government of Nova Scotia for the sector survey from which data for this thesis was collected, and is as follows:

Social enterprises operate like a business, produce goods and services for the market, but manage operations and direct surpluses in pursuit of social, environmental, and community or cultural goals (Donatelli, Voltan, Lionais, & Sears, 2018).

For the purposes of this study, the term resources represents both tangible and intangible inputs that contribute to achieving the desired outcomes of the organization. These could include financial resources, physical assets such as space and equipment, staff and volunteers, well as reputational resources such as goodwill, credibility and legitimacy, and social networks. Social enterprises focus both on social value creation and financial activities to support their social mission (Townsend & Hart, 2008). As such, they simultaneously embrace social and economic logics, leading to external and internal challenges associated with establishing legitimacy and managing competing priorities (Battilana & Lee, 2014). This dual pursuit of social return and financial sustainability creates conflicting goals (Desa, 2012), poses unique challenges for management, and increases the complexity of assessing performance. Additionally, social enterprises tend to operate in resource-constrained environments, which can push them away from their social mission towards a focus on gaining access to funding and other material inputs.

Despite these challenges, if we are to capitalize on the opportunities offered by social enterprises and maximize their social impact, more empirical evidence regarding what factors

lead to social impact is needed. While the field has grown substantially over the past decade, the SE concept remains essentially contested (Choi & Majumdar, 2014), research is disjointed (Dufays & Huybrechts, 2014; Nicholls, 2010; Zahra, Rawhouser, Bhawe, Neubaum, & Hayton, 2008), and anecdotal accounts and case studies tend to overshadow rigorous empirical evidence (Dey & Steyaert, 2012; Mair, 2010). In their review of SE research, Short, Moss and Lumpkin (2009) find that “conceptual papers dominate social entrepreneurship research and that empirical articles are largely reliant on the case study method with poor construct measurement” (p.169). Furthermore, they argue that if the field is to progress, “the next two decades should be characterized by unity in construct definition and by examining the social entrepreneurship construct through a variety of established theoretical lenses with clear boundary conditions” (p.166). This thesis responds to these calls for more empirical evidence (particularly based on larger sample sizes) that joins existing research in the field of entrepreneurship with SE.

2 Uniqueness of the Domain

Given the contested nature of the SE domain in terms of its definition and key characteristics, researchers have spent considerable effort describing what it is, and how it differs from commercial entrepreneurship (Dufays & Huybrechts, 2014). The centrality of the social mission is seen as a key differentiator of SE (Dees, 1998) since the provision of goods and services is not an end in and of itself, but a means to achieve social objectives (Mair, Battilana, & Cardenas, 2012). According to Peattie and Morley (2008), “The only clearly defining (rather than typical or desirable) characteristics are: the primacy of social aims; and that the primary activity involves trading goods and services” (p.95).

Resource mobilization and combination are also highlighted as important processes of SE. Mair and Marti (2006) find that a distinguishing feature of SE is the ability to creatively

combine resources to address social problems, and alter existing social structures. This aligns with the notion that the ability to mobilize scarce resources is a key differentiating factor between SE and commercial entrepreneurship, given that social enterprises often do not have access to traditional capital markets and labour pools (Austin et al., 2006). Santos (2012) attributes this to the fact that social entrepreneurs seek to *create* rather than capture value.

Others take the perspective that SE is not a distinct form of entrepreneurship, but rather a unique context in which entrepreneurial activities occur. Chell (2007) acknowledges that the social mission and associated values inherent to SE appear on the surface to conflict with those of economic enterprises. However, based on her discourse analysis of the concept of ‘enterprise’, overlaps between commercial and social entrepreneurship exist in terms of the need to pursue opportunities, create value, gain access to a mix of resources, and be embedded in a socio-economic context. She puts forward the proposition that social value is created by commercial entrepreneurship but that it tends to be discounted in favour of economic returns. She argues for a more holistic definition of entrepreneurship that can apply to both social and economic entrepreneurs.

Bacq and Janssen (2011) argue that two distinct differences exist between SE and conventional entrepreneurship: the intended targets (social mission versus profits), and the distribution of economic gains (reinvestment to achieve the social mission versus allocation to shareholders or reinvestment in commercial activities). Otherwise, similarities between the two exist in terms of the entrepreneurial process. In this study, SE is seen as a context in which entrepreneurship happens, rather than a unique domain in and of itself. In line with this interpretation, this thesis stems from the understanding that in order to move the field of SE beyond an “embryonic” state (Short et al., 2009), SE research needs to apply a variety of

existing, validated constructs to better understand how the social context can broaden our understanding of entrepreneurial behaviours.

3 Personal Interests and Experience

I developed an interest in social innovation and SE early in my career. In 2006 I completed a Master in Business Administration emphasizing corporate social responsibility (CSR), public policy and eco-efficiency. I then worked as a policy analyst with the Canadian federal government (Industry Canada; National Round Table on the Environment and the Economy), the university sector in Ontario (Council of Ontario Universities), and the Nova Scotia provincial government (Nova Scotia Departments of Education and Early Childhood Development, and Economic and Rural Development and Tourism). This experience exposed me to an array of social and environmental challenges facing Canada and the world, as well as to emerging thinking surrounding social innovation and SE.

My prior education and work experience have involved working directly and indirectly with social enterprises in terms of being connected to relevant policy discussions and sector advocacy work. In 2016 I began working on an initiative called “Inspiring Communities”, using the Collective Impact framework (Kania & Kramer, 2011) to work with communities to build a shared agenda and organize across sectors to tackle complex social problems. This work has evolved to three community sites in Nova Scotia and we now operate as a standalone NFP called Inspiring Communities, of which I am currently the Executive Director. We are working on a variety of projects aimed at strengthening networks and partnerships for systems change both nationally and regionally.

In my work at Inspiring Communities, I interact with many stakeholders in the NFP and social enterprise arena. There are many challenges facing those in the space. For example, many

NFPs in the province are struggling to survive financially, especially in light of decreased funding availability from the government. Many of these organizations are working to address similar issues but are very focused on their own communities and front line needs. As a result, they rarely have the time and energy to lift their view to assess how they might work with others at the system level, and how they might learn from each other and share assets. There is often a scarcity mindset present that perpetuates fragmentation, and a perceived need to protect and defend their “share of the pie”. This can lead to organizations working side-by-side, applying for the same funding, and not being aware of opportunities to collaborate and amplify efforts. While social enterprises generate at least a portion of their own revenues, they are not immune to these dynamics since many also rely on grants and donations and generally face resource constraints. These observations have fed my personal interests in the role of social networks in change efforts, and have raised questions about behaviours that can help break down silos and divides. It is with this perspective in mind that this thesis was shaped.

4 Research Antecedents to this Thesis

I began my doctoral studies at Saint Mary’s University in Halifax, Nova Scotia in 2014 with the intent of assessing social innovation in Nova Scotia’s local food system. My course work led me to research several areas of interest, from which I planned to develop my thinking. These included the role of networks in social innovation (Voltan, 2017), logic multiplicity in cross-sector partnerships for scaling social innovation (Voltan & De Fuentes, 2016), and assessing the role of context in applying the notion of “creating shared value” (Voltan, Hervieux, & Mills, 2017). During the early phase of my studies I also became involved with several research initiatives of the Saint Mary’s University Centre for Leadership Excellence (CLE) focusing on behavioural factors associated with social enterprises, and on assessing social

impact. Each of these projects entailed a series of interviews with stakeholders working on addressing social issues and led to publications pertaining to how social entrepreneurs frame social problems (Hervieux & Voltan, 2018), and how to assess social impact from a systems change perspective (Hervieux & Voltan, 2019).

As part of the research at the CLE, eight interviews were conducted with SE experts – i.e., those working to support the work of social entrepreneurs – and social entrepreneurs themselves. They took place during the winter of 2016 and a total of seven organizations from Nova Scotia and Ontario, Canada, and the US were represented. Interviews lasted approximately 40-60 minutes each and seven open-ended interview questions were asked that aimed at gauging perceptions of what SE entails, the motivations of social entrepreneurs and challenges faced, and what makes them unique from their commercial counterparts. Four main themes emerged in terms of what distinguishes SE from other types of enterprise, and what makes it successful: the central role of innovation and system-level change; the importance of networks and relationships; the complexity associated with decision-making and managing operations; and, the empathy and leadership skills integral to successful individuals.

In these early interviews, participants noted the importance of the ability to leverage resources and institutions to access what is needed to pursue the organization's mission. Attributes such as perseverance and being “scrappy” – that is, finding ways to work in the face of limited resources - were identified as key contributors to success. Due to the complexity of working in social contexts, there is a need to bring about lasting impact with fewer resources than are often available for commercial enterprises. For example, raising funds, staffing, developing ideas, and harnessing goodwill is a nonstop exercise of trying to balance things for the organization, and it's always moving. Social “changemakers” were described as often feeling

lonely, misunderstood, stressed, overworked, and “blocked at every turn”. As a result, they need to be bold, driven, compelled and resourceful to overcome these barriers. Interestingly, these sentiments describe attributes related to the constructs of bricolage (being creative with existing resources) and proactiveness (pursuing opportunities and being persistent) that are integral to this thesis. One of the key findings of this research pertains to the importance of the combined effect of proactiveness and bricolage on social impact.

In conjunction with interviews, I also conducted a thorough review of SE literature in two stages with the goal of understanding key individual and organizational characteristics associated with these organizations. The first review consisted of 57 articles and resulted in a conference paper presented at the New York University social enterprise conference in 2015 titled *Measuring Social Impact: Construct Clarity for Social Entrepreneurship*. The coding process in the review revealed the relevance of EO and bricolage in SE. In 2016, an additional 147 articles were reviewed as part of the conceptual development of this thesis. Again, EO and bricolage emerged as themes related to the characteristics of social entrepreneurs and enterprises, as well as managing hybridity (balancing both a social and economic mission) and social networks.

Through this research I developed greater awareness of the gaps listed at the beginning of this introduction. Specifically, I became more aware of the need for empirical work targeted at understanding the organizational factors affecting the success of social enterprises in achieving their social mission – and especially the role of EO and bricolage in this pursuit. While I remain interested in phenomena occurring in particular sectors such as local food systems, I became increasingly aware of a more general gap in understanding behaviours and processes at the organizational level that contribute to social impact in social enterprises. I felt that more work in

this arena would help to strengthen the foundation from which more focused research could be built, and decided to shift the topic of my doctoral thesis accordingly.

5 Contents

The contents of this thesis are divided by six chapters following the introduction. Chapter 1 provides the theoretical framework, focusing specifically on literature pertaining to how the field of SE has evolved, EO, entrepreneurial bricolage, economic productivity and social impact in social contexts. In Chapter 2, the analytical model is developed from the theoretical propositions and a series of hypotheses is presented regarding how the model variables will affect social impact for the analysis. Chapter 3 provides the context for the external environment within which the empirical study is conducted. It outlines key economic and social characteristics of the province of Nova Scotia, Canada, where the survey was administered, as well as relevant policy dynamics, prior SE sector studies, and descriptive statistics from the data. The methodology for the survey development and deployment and data cleaning are illustrated in Chapter 4. The analysis and findings are presented in Chapter 5. This includes steps pertaining to the reliability of the selected scales in the model, factor analyses, correlation and linear regression analyses of the model variables, and an investigation of the hypothesized mediation role of bricolage. Chapter 6 presents a discussion of the findings and further develops the contribution of the thesis including implications for practitioners and key stakeholders in the SE field. Final observations and remarks are summarized in the final chapter, or conclusion.

CHAPTER 1: THEORETICAL FRAMEWORK

As noted in the introduction, the definition of social entrepreneurship (SE) adopted in this thesis is described as the processes by which organizations create social value by stimulating social change or addressing social needs (Mair & Marti, 2006). While the social mission represents a key differentiator between SE and profit-driven entrepreneurship endeavours, SE “is a particular kind of entrepreneurship, which shares some characteristics with traditional entrepreneurship, such as innovation, risk and proactivity in a new idea or business” (Bargsted, Picon, Salazar, & Rojas, 2013, p.331). As such, there are entrepreneurial constructs that have their roots in for-profit firms that are worth exploring in social contexts.

This dissertation builds from the notion that SE shares many characteristics with commercial forms of entrepreneurship. It is therefore important to examine how constructs that have developed and been validated in the for-profit domain manifest in the SE context. This chapter begins by presenting rationale for why SE can be viewed as a context for entrepreneurship, rather than a distinct form of entrepreneurship on its own. From here, and building on the pioneering work of Austin, Stevenson and Wei-Skillern (2006), the following sections present relevant literature outlining what differentiates SE from commercial enterprises, and an overview of entrepreneurship constructs and theory relevant to the study of SE. An overview of two particular constructs from the field of entrepreneurship are then presented that form the basis of the empirical contribution of the thesis: entrepreneurial orientation (EO), comprised of innovativeness, risk-taking and proactiveness; and, entrepreneurial bricolage. While performance is an elusive concept in social enterprises, perceived social impact is offered as a way to understand the success of organizations relative to their social mission.

1 Social Entrepreneurship as a Context for Entrepreneurship

Social enterprises essentially use market-based mechanisms in their operations, and direct their profits to address social problems. As noted, some researchers have adopted the perspective that SE is not a distinct form of entrepreneurship, but rather a unique context in which entrepreneurial activities occur. Chell (2007) acknowledges that the social mission and associated values inherent to SE appear on the surface to be different from those of commercial enterprises, but that many overlaps exist pertaining to the activities and processes of each. She puts forward the proposition that social value is created by commercial entrepreneurship but that it tends to be discounted in favour of economic returns. Rather than defining SE as a field on its own, she argues for a more holistic definition of entrepreneurship that can apply to both social and economic entrepreneurs.

Dacin, Dacin and Matear (2010) examine SE literature with the intent of uncovering its distinctive elements as a unique form of entrepreneurship. Consistent with other research (Bacq & Janssen, 2011), they find that a range of definitions exist for SE, but that many highlight the individual attributes associated with social entrepreneurs – thus, increasing potential for biased insights and lack of consideration of organizational and contextual factors. In relation to three other prominent domains of entrepreneurship research: conventional, institutional and cultural, they find few differences across domains in terms of the individual characteristics of entrepreneurs or the operating sector, but note that distinctions exist in terms of the processes and resources used, and the primary mission and outcomes. As a result, while SE is related to and embedded in other forms of entrepreneurship, there are distinctive factors that make it a unique context for research – in particular, how various resources are identified and exploited. They contend that “there is more to gain by exploring social entrepreneurship as a unique context that

provides opportunities for social entrepreneurship researchers as well as researchers in existing disciplines—such as those associated with other forms of entrepreneurship—to investigate how existing theories apply to social mission-related phenomena” (Dacin et al., 2010, p.43). This notion will be further expanded in the exploration of the relevance of bricolage in SE.

Short, Moss and Lumpkin (2009) suggest that areas of scholarly interest in the field of strategic entrepreneurship have relevance for SE theory development and testing. They identify conceptual spaces in SE from entrepreneurship, public/non-profit management, social issues in management, and the areas of overlap between these domains. Their review of SE literature reveals a reliance on conceptual and anecdotal research, and the need for empirical examination of SE “through a variety of established theoretical lenses with clear boundary conditions” (p. 166).

2 Distinguishing Factors of Social Entrepreneurship

Despite the fact that SE shares characteristics and behaviours with the broader concept of entrepreneurship, its intended purpose of creating social impact leads to factors that distinguish it from the for-profit sector. In a content analysis of 87 SE articles, Moss, Lumpkin and Short (2008) find that social value creation, or fulfillment of a social mission, is a distinguishing dependent variable in SE literature. In an influential article for the field, Austin, Stevenson and Wei-Skillern (2006) pose the question of what differences, if any, exist between SE and commercial entrepreneurship. They note that:

Common across all definitions of social entrepreneurship is the fact that the underlying drive for social entrepreneurship is to create social value, rather than personal and shareholder wealth (e.g., Zadek & Thake, 1997), and that the activity is characterized by

innovation, or the creation of something new rather than simply the replication of existing enterprises or practices. (p.2)

Austin et al. (2006) conduct a comparative analysis guided by four variables: market failure, mission, resource mobilization and performance measurement (see Table 1 below). While they agree that SE shares common traits with broader definitions of entrepreneurship, their findings point to the importance of the pursuit of considering how entrepreneurial processes uniquely manifest in this context.

Table 1: Summary of Propositions by Austin, Stevenson and Wei-Skillern

Proposition 1: Market Failure	Market failure will create differing entrepreneurial opportunities for social and commercial entrepreneurship.
Proposition 2: Mission	Differences in mission will be a fundamental distinguishing feature between social and commercial entrepreneurship that will manifest itself in multiple areas of enterprise management and personnel motivation. Commercial and social dimensions within the enterprise may be a source of tension.
Proposition 3: Resource Mobilization	Human and financial resource mobilization will be a prevailing difference and will lead to fundamentally different approaches in managing financial and human resources.
Proposition 4: Performance Measurement	Performance measurement of social impact will remain a fundamental differentiator, complicating accountability and stakeholder relations.

Source: Adapted from Austin et al. (2006), p.3.

2.1 Market Failure

Market failures occur when products or services “cannot be profitably provided by the private sector” (Diochon & Anderson, 2009, p.22). In the case of social enterprises, in many cases the needs present are to help serve those who cannot afford to pay a competitive price for goods and services. Opportunities for social enterprises often stem from market failures and are therefore different from commercial opportunities. Rather than representing a potential source of profit, opportunities for social enterprises arise from responses to the failure of governments and markets to fill social needs (Austin et al., 2006). As a result, profit potential is limited, which

makes resource scarcity a long-term issue. Social entrepreneurs therefore need to understand the systems they are aiming to change to proactively identify these gaps and develop social innovations to address them. As noted by Phillips, Lee, Ghobadian, O'Regan and James (2015), although "business innovations do address societal issues, much of the research focuses on the role of the social entrepreneur in identifying and pursuing an opportunity and bringing a social innovation to fruition" (p.453). Social innovation is deemed necessary when existing approaches and solutions are inadequate for solving social problems (Nga & Shamuganathan, 2010), and SE has been referred to as "a process of catering to locally-existing basic needs that are not addressed by traditional organizations [...] to change or modify the social and/or economic arrangements that create the situation of failure to satisfy basic needs" (Mair, 2010, p.4).

Phills, Deiglmeier and Miller (2008, p.36) define social innovation as: "A novel solution to a social problem that is more effective, efficient, sustainable or just than existing solutions and for which the value created accrues primarily to society as a whole rather than private individuals." Tim Brodhead, former President and CEO of the J.W. McConnell Foundation whose mission includes contributing to a more resilient Canada through social innovation, highlights the importance of process in his definition. He describes "a journey – devising new approaches that engage all stakeholders, leveraging their competencies and creativity to design novel solutions" (Etmanski, 2015, p.25). The distinctions in terms of the types of opportunities pursued, therefore points to the need for different capacities at the individual and organizational levels. While opportunity exploitation requires the investment of scarce resources for future returns in both social and commercial contexts, for social entrepreneurs, "The problem is not the existence of the need, but rather whether the necessary resources can be marshaled for the social entrepreneur's innovation to serve that need" (Austin et al., 2006, p.7).

2.2 Mission

This distinction regarding opportunity identification and social innovation in SE links to the differences associated with the organizational mission in commercial and social enterprises. Bacq and Janssen (2011) argue that two distinct differences exist between SE and conventional entrepreneurship: the intended targets (social mission versus profits), and the distribution of economic gains (reinvestment to achieve the social mission versus allocation to shareholders or reinvestment in commercial activities). Neck, Brush and Allen (2009) present the dependent variable of entrepreneurship as wealth and job creation - and therefore the betterment of society, or social impact. They position the distinction between “traditional” and social entrepreneurship as related to inputs versus outputs, where “Sources of opportunity and the founding mission are the starting points” (p.15). Mair, Battilana and Cardenas (2012) acknowledge that SE is similar to conventional entrepreneurship in that it entails the provision of goods and services, yet this is “not an end in itself, but an integral part of an intervention to achieve social objectives, thereby contributing to social change” (p.353).

Martin and Osberg (2007) see the value proposition as the critical differentiator between commercial entrepreneurship and SE. Much like was described in the context of types of opportunities pursued, for the entrepreneur the value proposition is “designed to create financial profit. From the outset, the expectation is that the entrepreneur and his or her investors will derive some personal financial gain” (Martin & Osberg, 2007, p.34). The social entrepreneur, on the other hand, “aims for value in the form of large-scale, transformational benefit” (Martin & Osberg, 2007, p.34). While some for-profit ventures may arguably have such wide-scale impact, they are driven primarily by profit generation. Weerawardena and Mort (2006) examine nine in-depth cases of SE in a not-for-profit context and find that entrepreneurial behaviour (categorized

by innovativeness, proactiveness and risk management) is both responsive to and constrained by the social mission and the desire to maintain the sustainability of the organization. They highlight the context of SE as “a turbulent and dynamic environment that forces them to pursue sustainability, often within the context of the relative resource poverty of the organization” (p.32).

Lumpkin, Moss, Gras, Kato and Amezcua (2013) underline the social mission as an antecedent to SE and state that “whether explicitly stated or tacitly acted out, an enterprise’s mission provides its animating force, its basis for action. It captures both the motivation of the entrepreneur(s) and the corresponding goals needed to address the motivation” (p. 764). The following quotes further illustrate the prominent role of social value creation in distinguishing SE from commercial entrepreneurship (*italics added for emphasis*):

Commercial entrepreneurship may provide job opportunities and infrastructure - that is, tied to economic value generation, whereas *social entrepreneurship intends to create social value by addressing social problems and social needs* through the mobilization of interpersonal and professional networks. (Dufays & Huybrechts, 2014, p. 10)

Similar to conventional entrepreneurship, SE involves the provision of goods or services. However, the provision of the product or service is not an end in itself, but an integral part of an intervention to achieve social objectives, thereby contributing to social change. Thus, rather than being only economic endeavors, *SE initiatives aim primarily to pursue a social mission and to ultimately transform their social environment*. (Mair et al., 2012, p. 353)

According to the current perspectives on SE, while *the supremacy of social value creation is recognized as the distinctive feature of SE* – thus explaining the ‘S’ dimension of the expression – the recognition of opportunities to create that value, the ability to take advantage of them and the pressure to innovate explain the association with entrepreneurship (...) (Perrini, Vurro, & Costanzo, 2010, p. 517)

These quotes emphasize the primacy of the social mission and the process for creating social value in social enterprises. As noted in section 2.1, SE often begins by addressing a market

failure that has limited potential for profitability. Combined with the social mission, the need for abilities to creatively identify and use available resources to create social value is critical.

2.3 Resource Mobilization

Building from the understanding that SE often takes place in resource-constrained environments, Austin et al. (2006) contend that although many similarities exist between the human and financial resource needs of commercial and social entrepreneurship, differences lie in issues related to resource mobilization. Social enterprises often rely heavily on volunteers and their recruitment efforts are hindered by their inability to match wages offered by for-profit alternatives. In addition, venture capitalists and other traditional funders typically seek to maximize their financial returns and therefore social entrepreneurs do not have the same access to their investments. Mair and Marti (2006) find that a distinguishing feature of SE is the ability to creatively combine resources to address social problems, and alter existing social structures. Santos (2012) attributes this to the fact that social entrepreneurs seek to *create* rather than capture value, and promotes a holistic interpretation of value that combines both social and economic outcomes. While all entrepreneurial start-ups tend to operate in resource-constrained environments, social enterprises face greater resource scarcity – sometimes over their entire lifetime. As will be explored further in section 4, bricolage skills are particularly important in the context of SE due to this resource scarcity.

2.4 Performance Measurement

“The social purpose of the social entrepreneur creates greater challenges for measuring performance than the commercial entrepreneur who can rely on relatively tangible and quantifiable measures of performance such as financial indicators, market share, customer satisfaction, and quality” (Austin et al., 2006, p.3). Social enterprises seek to create social impact

while generating the financial resources needed to do so. This dual nature of the organizational mission leads to a heterogeneity of stakeholder relationships that presents further challenges for assessing performance in social enterprises (Arena, Azzone, & Bengo, 2015). Furthermore, Kroeger and Weber (2014) find that comparability between social ventures is hampered by the variety of social interventions, the social element, and different socioeconomic and institutional contexts. While tangible and quantifiable measures are readily available for assessing performance in commercial firms, the “challenge of measuring social change is great due to nonquantifiability, multicausality, temporal dimensions, and perceptive differences of the social impact created” (Austin et al., 2006, p.3), thus complicating accountability and stakeholder relations. Despite these challenges, funders and other stakeholders are increasingly calling on social enterprises to report on their social impact (Shepherd & Patzelt, 2011). A range of tools have been developed to assess performance in social enterprises such as the balanced scorecard approach (Kaplan & Norton, 1992), social return on investment (SROI) (Arvidson, Lyon, McKay, & Moro, 2010), contingency models and stakeholder-based models (Emerson, 2003). However, critics have challenged the ability of such tools and associated metrics to account for the complex nature of social enterprises and long-term, systemic impact (Antadze & Westley, 2012; Arena et al., 2015). Chmelik, Musteen and Ahsan (2016) find that many performance measurement tools for social enterprises have been adapted from the commercial sector and are quantitative in nature, thus oversimplifying understanding of their impact.

As noted, for the purposes of this study SE is understood as a context within which entrepreneurship occurs (Dacin et al., 2010) rather than a domain on its own. That said, based on the elements of SE outlined here that distinguish it from commercial entrepreneurship (namely, market failure, mission type, resource mobilization and performance measurement), it is

proposed that while traditional entrepreneurship constructs are relevant their impact on social impact worth studying in social enterprises to better understand contextual differences. For example, the processes associated with the pursuit of opportunities, value creation and resource mobilization for generating social impact will likely differ from those that targeted at generating profits.

2.5 Critical Perspectives in Social Entrepreneurship

The study of SE is a developing field that is growing quickly and further empirical work is needed to more deeply understand the differences between social and commercial enterprises. While many stakeholders see the potential for social enterprises to solve social problems with greater resource efficiency than traditional NFPs, a critical discourse in the field provides an alternative lens worth considering. The revenue generation aspect of social enterprises potentially enables them to be less reliant on grants and donations, but sceptics suggest that some organizations adopt the SE label more so as a means to gain legitimacy from funders and policymakers (Dey & Steyaert, 2012; Dey & Teasdale, 2015). Parkinson and Howorth (2008) highlight the problematic nature of this trend by stating that “within the rhetoric of social entrepreneurship, the language of business and entrepreneurship is held up as being the way forward for social enterprises” (p. 285). This tendency causes some to question whether SE is truly distinct from conventional business and suggest that it is more of a perpetuation of dominant ideologies and power dynamics (Dey & Steyaert, 2012). Furthermore, framing processes that encourage a business-like approach to SE can lead to funder and stakeholder support for organizations that fit this mould, versus a more objective assessment of their potential for social impact (Hervieux & Voltan, 2018).

It is important to be cognizant of the potentially problematic nature of confounding community and business interests as the SE field matures and seeks legitimacy (Nicholls, 2010). As noted, this thesis builds from the notion that SE should be considered a context within which entrepreneurship manifests rather than a unique field on its own – and therefore constructs designed in commercial contexts are relevant (Dacin, Dacin & Matear, 2010). It is worth considering that this assumption may support a continuation of value being placed on the business discourse in SE and the presence of organizational behaviours that align with it. This idea is revisited in the conclusion of the thesis as an alternative explanation for the results that may merit further examination. Regardless, ample rationale exists to study the effects of conventional entrepreneurship constructs in social enterprises to deepen understanding of how performance occurs in this context. With this in mind, the following section explores entrepreneurial orientation (EO) in social contexts.

3 Entrepreneurial Orientation in Social Contexts

The first construct identified as worthy of further analysis in the context of SE is EO, which is an extensively studied organization-level construct in commercial enterprises that describes the extent to which top managers engage in behaviours that are proactive, open to risk-taking, and innovative (Covin & Slevin, 1988). It is rooted in an understanding of entrepreneurship as a disruptive and innovative process, as well as in strategic management theory examining interactions between managerial style, organizational structure, and environmental conditions. More recently, researchers have sought to understand its manifestation in non-profit contexts (Morris, Webb, & Franklin, 2011) and social enterprises (Weerawardena & Mort, 2006). While very few large-scale empirical studies have been

conducted to explore how EO affects social impact in social enterprises, measures to assess a social EO are in early development (Kraus, Niemand, Halberstadt, Shaw, & Syrjä, 2017).

The characteristics of the dimensions of proactiveness and innovativeness are present in the distinguishing factors of SE presented by Austin et al. (2006), particularly in terms of the need to identify opportunities based on market failures, and to find new ways of addressing social problems. Risk-taking is also inherent in these behaviours. As noted in the introduction, based on a review of SE literature conducted in the early stages of this research that included more than 150 articles, EO emerged as a theme in the coding process as a relevant organizational behaviour in social enterprises. The following sections present an overview of the history and evolution of EO, and a review of work to date that examines its relevance and impact in social contexts. The exploratory literature review helped to inform the development of this theoretical framework.

3.1 From the Entrepreneur to Entrepreneurship

While the role of entrepreneurs in economic development has been recognized for more than two centuries, much diversity of opinion has persisted around its definition and its place in society (Yarzebinski, 1992). Jean-Baptiste Say was a French economist and businessman who favoured policies that enabled free trade and competition, and imposed few constraints on markets. He first coined the term entrepreneur in about 1800 and described it as someone who “shifts economic resources out of an area of lower and into an area of higher productivity and greater yield” (Drucker, 1985, p.21) – in other words, entrepreneurs create economic value.

In the 20th century, Joseph Schumpeter described entrepreneurs as “the innovators who drive the “creative-destruction” process of capitalism” (Dees, 1998, p.1). Schumpeterian entrepreneurs are the change agents in society that contribute to economic progress by serving

new markets or finding new ways of doing things (Schumpeter, 1934). Peter Drucker further elaborates the concept of change in the context of entrepreneurship, but emphasizes the entrepreneur as someone who “always searches for change, responds to it, and exploits it as an opportunity” (Drucker, 1985, p.28). He views entrepreneurs not necessarily as change agents themselves, but as “canny and committed exploiters of change” (Martin & Osberg, 2007, p.31).

Despite this foundational understanding of entrepreneurs as individuals who create value and/or stimulate change, identifying their specific characteristics has been the subject of many debates. This trait-based approach to understanding entrepreneurship at the individual level has arguably led to greater confusion about what constitutes entrepreneurship, given the “startling number of traits and characteristics” (Gartner, 1989, p.57) that have been attributed to the entrepreneur. Many early definitions of SE follow trait-based approaches that assume particular personality types and characteristics. Zahra et al. (2009) reviewed existing definitions of SE and claim that the tendency to reinforce individual dimensions and motives is limited in offering a way to evaluate performance and social impact. Greg Dees, who has been referred to as the “Father of Social Entrepreneurship Education” (Worsham, 2012), connects SE to the Schumpeterian view of entrepreneurship. He focuses less on individual factors and notes the processes through which social entrepreneurs play the role of change agents in the social sector. These processes emphasize characteristics associated with proactiveness and innovativeness, and include:

- Adopting a mission to create and sustain social value (not just private value),
- Recognizing and relentlessly pursuing new opportunities to serve that mission,
- Engaging in a process of continuous innovation, adaptation, and learning,
- Acting boldly without being limited by resources currently in hand, and
- Exhibiting heightened accountability to the constituencies served and for the outcomes created. (Dees, 1998, p.4)

As an alternative to studying entrepreneurs from an individual, trait-based approach, *entrepreneurship* can be understood as a series of behaviours and processes at the organization level. The central idea underlying entrepreneurship is new entry, which can be defined as “the act of launching a new venture, either by a start-up firm, through an existing firm, or via “internal corporate venturing” (Burgelman, 1983)” (Lumpkin & Dess, 1996, p.136). The notion of an organizational EO links to entrepreneurship, but “refers to the processes, practices, and decision-making activities that lead to new entry” (Lumpkin & Dess, 1996, p.136). The study of entrepreneurship as a strategic orientation at the organizational level helps to refocus research away from individual traits and towards the organizational behaviours that enable firms to effectively identify and exploit opportunities for greater value creation.

In this vein, process-based views of SE (Guclu, Dees, & Battle Anderson, 2002; Mair & Marti, 2006) focus on the organizational processes dedicated to social change (Bacq & Janssen, 2011). This perspective sees venture creation “as an outcome of a complex social process, shaped by the characteristics of the individual starting a new venture, as well as the context surrounding the new venture” (Perrini et al., 2010, p. 517). It embodies a blend of dimensions that encapsulate the individual characteristics, organizational processes, and desired outcomes inherent to SE.

3.2 Linking Managerial Style and Organizational Strategy

Of course, it is difficult to fully delineate the relationship between the individual (the entrepreneur) and the process (entrepreneurship). Understanding entrepreneurship as an organizational phenomenon necessitates examining how managerial and team style affects decision-making and strategic orientation. In this vein, contributions from Henry Mintzberg and Pradip Khandwalla in the 1970s are of particular relevance to the evolution of EO. They offer

novel insights into how managerial style affects strategic decision-making in organizations, how different styles fare in varying environmental conditions, and how they link to firm performance.

In 1973, Mintzberg posed the question “How do organizations make important decisions and link them together to form strategies?” (Mintzberg, 1973, p.44). Up to this point, relatively little attention had been given to strategy-making processes in business contexts. Mintzberg identified three organizational modes used in decision-making: adaptive, planning and entrepreneurial. In the adaptive mode, there is an absence of clear goals in the organization, and solutions tend to be reactive in the search for new opportunities. Decisions are typically incremental and disjointed, and little is done to sway from the status quo. In the planning mode, analysts work alongside managers to implement techniques from management science. Systematic analyses – particularly cost-benefit assessments - are the basis for decision-making, and decisions and strategies are made in an interrelated fashion so as to benefit from integrated thinking and complementarity of solutions.

For those organizations in the entrepreneurial mode, Mintzberg (1973) recognized the role of the individual entrepreneur in innovation and creating “new combinations” (Schumpeter, 1934), but extended the notion to include a way of running enterprises that focuses on opportunities. This strategy is categorized by an active search for new opportunities, as well as a concentration of power controlled by the chief executive officer (CEO); forward leaps in the face of uncertainty, propelled by flexibility, bold decisions and actions; and, dominant goals of growth and achievement. Conditions conducive to the entrepreneurial mode include young organizations with few precedents and sunk costs, and the presence of a powerful individual with strategy-making authority.

Khandwalla (1976/77) conducted a study of 80 Canadian firms to identify top management styles, contextual factors and links to performance. He argued that the goals and style of top management are a basis for the organizational structure, technology and operations. Building on prior work by Mintzberg (1973) and others (Braybrooke & Lindblom, 1963; Burns & Stalker, 1961; Likert, 1961; McGregor, 1960), Khandwalla identified five dimensions of top management styles: risk taking, technocracy, organicity, participation and coercion. Risk-taking pertains to managers' tolerance for risk; technocracy represents the degree of commitment to management science techniques and planning; organicity refers to openness to flexibility and informality; participation speaks to the perceived importance and involvement of human resources; and, coercion refers to the use of dominance and fear to obtain commitment and compliance within the organization.

In addition to these five dimensions, Khandwalla (1976/77) identified seven ideal-type styles of management, each representing a combination of the dimensions discussed. These styles include: neo-scientific, entrepreneurial, quasi-scientific, "muddling through", conservative, democratic and "middle-of-the-road". Here, the entrepreneurial style is "characterized by bold, risky, aggressive decision-making, charismatic leaders, a strong commitment to growth, an emphasis on administrative flexibility, reliance on intuitive judgments rather than those based on elaborate technical analysis, and not too strong a belief in institutionalized participatory decision making" (p.25). Entrepreneurial managers often seize opportunities prior to thorough analysis, thereby making flexibility a priority so the organization can adapt to changing circumstances. This style is highly effective in very turbulent (rapidly changing, unpredictable), hostile (risky, harsh, overwhelming), and diverse (heterogeneous markets and customer types) environments. It was also found to result in strong performance, both subjectively (from the respondent's

perspective) and objectively (based on a separate index from the survey), in regards to profitability, sales and revenues, employee morale/job satisfaction/commitment, financial strength, and public image and goodwill.

3.3 Understanding Strategic Orientation and Organizational Types

Building on the work of Mintzberg and Khandwalla among others, work progressed beyond managerial styles to explore how these might translate to broader strategic orientations across organizations and organization types. For example, Miles and Snow (1978) and Miles, Snow, Meyer and Coleman (1978) made important contributions to the field with the development of their theoretical framework for assessing ways that organizations define their strategies and correspondingly construct structures and processes to pursue them. Their adaptive cycle model includes three broad “problems” of organizational adaptation: entrepreneurial, engineering and administrative (see Table 2 below). The entrepreneurial problem is most prominent in new and changing organizations, and involves the need to identify and define an opportunity for goods, services, and a target market.

Building on this work, Miles et al. (1978) present four strategic types of organizations based on approaches to problem-solving. These include defenders, analyzers, prospectors, and reactors, where the reactor type is referred to as a “strategic failure”. Prospectors are the most entrepreneurial organizational type and their “prime capability is that of finding and exploiting new product and market opportunities” (Miles et al., 1978, p.551). Table 2 below illustrates how prospectors frame and address each of the problems of the adaptive cycle model.

Table 2: Characteristics of the Prospector Type

	Entrepreneurial Problem	Engineering Problem	Administrative Problem
Problem framing	How to locate and exploit new product and market opportunities	How to avoid long-term commitments to a single technological process	How to facilitate and coordinate numerous and diverse operations
Potential solutions	<ul style="list-style-type: none"> • Strong environmental monitoring • Creator of change in the industry • Growth via new products & markets (possibly in spurts) 	<ul style="list-style-type: none"> • Flexible, prototypical & multiple technologies • Low degree of routinization & mechanization • Technology embedded in people 	<ul style="list-style-type: none"> • Dominant coalition of managers that allocates power to marketing, R&D; is large & diverse – may have inner circle; may not have lengthy tenure • Decentralized control & horizontal info systems • Comprehensive, problem-oriented planning that is not finalized prior to action

Source: Adapted from Miles et al. (1978), p.554.

In an effort to advance the field and provide greater clarity regarding the strategy typology developed by Miles et al. (1978), Conant, Mokwa and Varadarajan (1990) developed a scale that identified 11 adaptive cycle dimensions. Each dimension included one scale item with four possible responses corresponding to an organizational type (i.e., defender, analyzer, prospector, or reactor). Defenders are satisfied with their current place in the market and work to maintain it. Analyzers are a blend in that they have the capacity to develop new technologies and products, and also defend their place in the market. Reactors have the poorest strategic position and try to keep up with the changes in the environment. Prospectors are the most entrepreneurial in nature and are consistently on the forefront of innovation and development. Table 3 includes the responses used to identify prospectors, which influenced the dimensions of EO (Miller & Friesen, 1982).

Table 3: Scale Items for Identifying the Prospector Type

Survey Question for Each Adaptive Cycle Dimension	Response Associated with Prospectors
1. In comparison to other organizations in my industry, the services which we provide to our members are best characterized as:	Services which are more innovative, continually changing and broader in nature throughout the organization and marketplace.
2. In contrast to other organizations in my industry, my organization has an image in the marketplace which:	Has a reputation for being innovative and creative.
3. The amount of time my organization spends on monitoring changes and trends in the marketplace can best be described as:	Lengthy: We are continuously monitoring the marketplace.
4. In comparison to other organizations in my industry, the increase or losses in demand which we have experienced are due most probably to:	Our practice of aggressively entering into new markets with new types of service offerings and programs.
5. One of the most important goals in this organization, in comparison to other organizations in my industry, is our dedication and commitment to:	Insure that the people, resources and equipment required to develop new services and new markets are available and accessible.
6. In contrast to other organizations in my industry, the competencies (skills) which our managerial employees possess can be best characterized as:	Broad and entrepreneurial: their skills are diverse, flexible, and enable change to be created.
7. The one thing that protects my organization from other organizations in my industry is that we:	Are able to consistently develop new services and new markets.
8. More so than many other organizations in my industry, our management staff tends to concentrate on:	Developing new services and expanding into new markets or market segments.
9. In contrast to many other organizations in my industry, my organization prepares for the future by:	Identifying trends and opportunities in the marketplace which can result in the creation of service offerings or programs which are new to the organization's industry or which reach new markets.
10. In comparison to other organizations in my industry, the structure of my organization is:	Service or market oriented (i.e. different departments have marketing or accounting responsibilities).
11. Unlike many other organizations in my industry, the procedures my organization uses to evaluate our performance are best described as:	Decentralized and participatory, encouraging many organizational members to be involved.

Source: Adapted from Conant, Mokwa and Varadarajan (1990), p.381-383.

As Miles and Snow conceptualized their model of strategic types of organizations, Miller and Friesen were developing archetypes of strategy formulation (1978) and organizational transition (1980). They challenged the “if-then” approach to relationships that had been dominant in work using contingency theory, arguing that a number of environmental and

structural conditions often co-exist and that without recognizing this reality, research risks being oversimplified. To support this argument, they reference Mintzberg's (1979) finding that studies in the field are often contradictory and at a crossroads. In 1978 they examined a wide range of variables and determined 10 archetypical organizations: six of which were considered successful, and four unsuccessful. For each type, they identified characteristics of the environment and the organization, and identified coping methods used in strategy making. The "entrepreneurial conglomerate" included those run by a charismatic manager/owner most interested in expanding and/or diversifying through the acquisition of other firms. These organizations had high scores on variables such as centralization, differentiation, proactiveness and risk.

In a subsequent study, Miller and Friesen (1982) focus on the process of innovation in two types of firms: conservative and entrepreneurial. In the first, innovation is seen as something to be done when necessary, in response to challenges. In the second, innovation is a natural state that "will be boldly engaged in unless there is clear evidence that resources are being squandered in the pursuit of superfluous novelty" (p.16). These types were developed from past work by Miles and Snow (1978), Miller and Friesen (1978) and Mintzberg (1973). While innovation is key to success in all types of firms, key findings included that environmental scanning and organizational controls are positively correlated with innovation in the case of conservative firms, and negatively in the case of entrepreneurial ones. The authors attribute this to the fact that in entrepreneurial firms, excessive innovative behaviour may be curbed by greater awareness of the external environment, whereas more conservative firms may not be motivated to innovate until they witness environmental changes. In both cases, centralization of management and technocratic behaviours were positively correlated with innovation.

3.4 Toward a Firm-level View of Entrepreneurship

In 1983, Miller undertook a study to identify the key determinants of entrepreneurship - “the process by which organizations renew themselves and their markets by pioneering, innovation, and risk taking” (Miller, 1983, p.770) - with the goal of exploring how Mintzberg’s (1973) modes and structures may be empirically validated. Guided by the notion that entrepreneurship can be understood in a broader and less restrictive way than previous work had suggested, he moved the emphasis away from the individual characteristics of the entrepreneurs to activities at the firm level. He accepted the vital role of Schumpeter’s entrepreneur in economic development, but argued that it could be achieved by entire organizations. Based on a literature review, Miller (1983) identified entrepreneurship as a multidimensional construct comprised of three dimensions: innovation, proactiveness and risk taking, where each dimension must be present to some degree. This work represents an initial step towards the development of EO, despite the fact that Miller did not use the term himself, and did not intend to create a scale to measure entrepreneurship (Miller, 2011).

Following Miller’s research, Jeffrey Covin and Dennis Slevin (1988, 1989, 1991) made considerable contributions to the development of the EO construct and define it as follows (Covin & Slevin, 1988):

The entrepreneurial orientation of a firm is demonstrated by the extent to which the top managers are inclined to take business-related risks (the risk-taking dimension), to favour change and innovation in order to obtain a competitive advantage for their firm (the innovation dimension), and to compete aggressively with other firms (the proactiveness dimension). (p.218)

In a later study, Covin and Slevin (1989) analyzed relationships between entrepreneurial firms, organizational structure and the level of hostility encountered in the external environment. Hostile environments are defined by “precarious industry settings, intense competition, harsh, overwhelming business climates, and the relative lack of exploitable opportunities” and non-hostile (benign) ones “provide a safe setting for business operations” (p.75). They hypothesized that both organic structures and entrepreneurial strategic postures would have a more positive effect on firm performance in hostile environments than benign ones and their findings supported the two hypotheses. As outlined in section 2.3, social enterprises typically operate in resource-constrained environments. This can be related to having limited access to traditional funding vehicles, and operating in non-supportive institutional and policy environments. Many studies have examined how SE plays a role in hostile environments such as at the bottom of the pyramid (Webb, Kistruck, Ireland, & Ketchen Jr, 2010). One example is the work of Tobias, Mair and Barbosa-Leiker (2013), who study how SE can play a role in catalyzing prosperity and wellbeing in poverty-conflict zones, using Rwanda as a case study. They advocate for shifting thinking that transformation and emancipation are critical intentions for SE, and that profound social change can be achieved in their absence. In other words, entrepreneurship processes can create social value through improved wellbeing in hostile, resource-constrained environments. As a result, it is expected that based on the connection to SE and hostile environments, EO will have positive effects on social impact performance in social contexts.

3.5 Dimensions of Entrepreneurial Orientation

In 1991, Covin and Slevin published their conceptual model of entrepreneurship as a firm-level behaviour. Organizations with entrepreneurial postures are characterized by those in which “particular behavioral patterns are recurring” (Covin & Slevin, 1991, p.7) that reflect top

management's strategic philosophy in terms of propensity for (1) innovativeness, (2) taking risks, and (3) proactiveness (Miller, 1983). These three behaviours represent the dimensions of EO. Entrepreneurial organizations are first-movers to which competitors respond, that exhibit technological leadership, research and innovation. And, although entrepreneurial approaches may not always be desirable, understanding entrepreneurial posture as a behavioural phenomenon can help managers encourage activities associated with risk-taking, proactiveness and innovation.

Lumpkin and Dess describe innovativeness “reflects a firm's tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes” (p.142). It is described in terms of technological innovation and product-market innovation, which emphasizes product design, market research, advertising and promotion. Risk-taking is defined in reference to Miller's (1983) work as “the firm's proclivity to engage in risky projects and managers' preferences for bold versus cautious acts to achieve firm objectives” (p. 146). These risks are in the interests of achieving high financial returns by capturing opportunities in the marketplace. Proactiveness speaks to the presence of vision and a forward-focused outlook that is “accompanied by innovative or new-venturing activity” (p.146), and the ability to identify new opportunities and exhibit leadership traits. It is distinct from competitive aggressiveness in that it relates to how a firm pursues and captures new market opportunities, rather than how it reacts to existing trends and demands. The opposite of proactiveness is passiveness – i.e., “indifference or an inability to seize opportunities or lead in the marketplace” (p.147) – rather than reactivity.

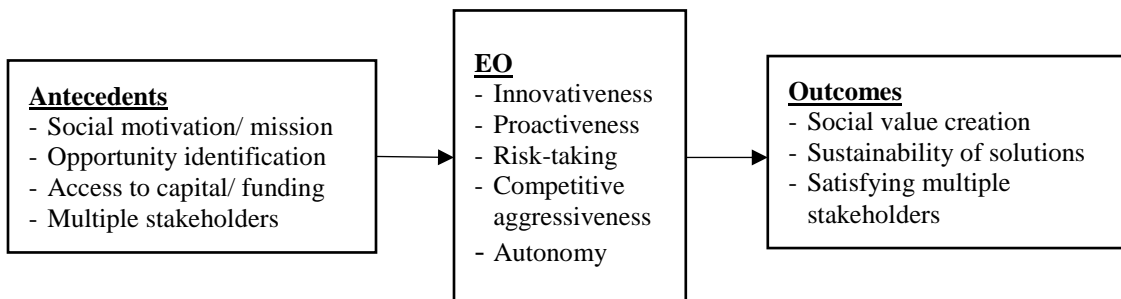
Lumpkin and Dess (1996) added two new dimensions to those developed by Covin and Slevin: (4) autonomy and (5) competitive aggressiveness. Competitive aggressiveness “refers to

the type of intensity and head-to-head posturing that new entrants often need to compete with existing rivals” (Lumpkin & Dess, 1996, p.139) and, “a firm’s propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry rivals in the marketplace” (p.148). This dimension also speaks to the degree to which firms are willing to engage in unconventional competitive tactics to outsmart and challenge industry leaders.

While competitive aggressiveness pertains to the external, competitive environment the organization operates within, autonomy is concerned with the internal freedom and flexibility enjoyed by individuals and teams. In general terms, it means “the ability and will to be self-directed in the pursuit of opportunities” and, “action taken free of stifling organizational constraints” (Lumpkin & Dess, 1996, p.140). In small firms, autonomy often relates to the owner/manager playing a central role with the authority to make decisions and implement his/her vision. In larger organizations, autonomy is associated more with decentralized structures that allow for ideas to be generated and authority to be delegated to lower levels.

A more recent study was conducted to assess whether the five dimensions developed by Lumpkin and Dess (1996) differ in social contexts (Lumpkin et al., 2013). The study begins from the premise that efforts have been made to identify distinctive entrepreneurial antecedents and outcomes in social and commercial contexts, but highlights a gap in terms of understanding how entrepreneurial processes compare in each. An inputs-throughputs-outputs framework helps to identify the potential effects of a five-dimensional EO (Lumpkin & Dess, 1996) based on previously identified antecedents and outcomes (see Figure 1).

Figure 1: The SE Process Framework



Source: Adapted from Lumpkin et al. (2013). Entrepreneurial processes in social contexts: how are they different, if at all? *Small Business Economics*, 40(3), 761-783, Figure 1, pg. 764.

While not empirically validated, the model suggests that greater levels of innovativeness and proactiveness are important for value creation in social contexts given resource constraints and “the challenges associated with finding lasting and creative solutions to address issues of sustainability and scalability” (Lumpkin et al., 2013, p.777). The effect of risk-taking in social enterprises is paradoxical since greater risks need to be accepted to solve social problems, but many social ventures appear risk averse in their efforts to build sustainable organizations (Weerawardena & Mort, 2006).

In terms of the autonomy and competitive aggressiveness, the study led to the finding that the dimension of autonomy at the organization level may be uncommon in the process of value creation in social contexts given the more collaborative nature of the sector. Competitive aggressiveness was proposed to have a negative effect on social value creation since “cooperation among enterprises or agencies attempting to solve a common problem is a feature of social entrepreneurship that may mitigate against high levels of competitive aggressiveness” (Lumpkin et al., 2013, p.777). Greater social performance is typically found when organizations work in partnership for collective impact. As a result, these dimensions are arguably less suited to the SE context. However, it is also important to recognize that the resource scarcity typically

found in the environments within which social enterprises operate can lead to a “fend for yourself” mentality that works against collaboration.

As noted, very little empirical work exists to date that examines EO in the context of social enterprises or not-for-profits. Syrjä, Puumalainen, Sjögrén, Soinenen and Durst (2013) attribute this gap to the fact that much of the SE research to date has focused on definitional issues and descriptions of various types of social enterprises. Kraus, Niemand, Halberstadt, Shaw and Syrjä (2017) contribute to the development of a scale to measure a social entrepreneurial orientation (SEO) in social enterprises. In the first and second rounds of their Delphi study they found consistent results regarding the definition and measurement of EO in the social enterprises they surveyed. While they assessed the relevance of the five-dimensional model of EO (Lumpkin & Dess, 1996), the three-dimensional model (Covin & Slevin, 1989; Miller, 1983) emerged as more relevant for social contexts. In line with these findings, the three-dimensional model was also adopted for the research in this thesis.

4 Entrepreneurial Bricolage

The notion of bricolage can be traced to the work of Lévi-Strauss (1962), who provided insights on its characteristics – accessing resources at hand, recombining resources for new purposes, and making do with existing resources - rather than an explicit definition (Baker & Nelson, 2005). Bricolage requires various skills and behaviours such as creativity, improvisation and networking. Stinchfield et al. (2013) examine the range of modalities developed and compared by Levi-Strauss (1962) (i.e., the artist, the craftsman, the engineer and the bricoleur) and noted:

“If the artists’ identity is tied to their unique vision, the craftsmen to their practices, engineers to their pursuit for efficiency, then bricoleurs’ identity is tied to “making it

work”, which is usually meant by any means or timeframe necessary”. (Stinchfield et al., 2013, p.904)

In the field of entrepreneurship, bricolage “has served as an explanation for a variety of innovative entrepreneurial behaviors that do not reflect conventional rationalistic thinking” (Stinchfield et al., 2013, p.890). Much like EO emphasizes the strategic orientation of organizations versus the traits of individuals, the study of bricolage as an organizational behaviour rather than an individual’s skill acknowledges the heterogeneity of entrepreneurs and organizations engaging in entrepreneurship, as well as the role of non-economic considerations in decisions related to how resources are accessed and exploited. Bricolage aligns with the SE process identified by Dees (1998) described as needing to act boldly to overcome resource constraints (section 3.1). In light of these resource constraints that distinguish SE from conventional entrepreneurship noted by Austin et al (2006) and others, scholars are increasingly interested in the role of bricolage in social contexts (Desa, 2012; Di Domenico, Haugh, & Tracey, 2010; Zahra et al., 2009).

As noted in the introduction, in the exploratory literature review conducted in preparation for this thesis, bricolage emerged as a construct alongside EO that is frequently referenced as relevant for the SE field. The following sections present an overview of organization-level bricolage in the context of entrepreneurship studies and its application in social contexts.

4.1 Organizations and the External Environment

As noted in section 3.4, organizations operate within broader external environments that affect resource availability, perceived legitimacy and other factors contributing to their ability to create value. A distinguishing element of the field of strategic management is the emphasis placed on the competitive environment (Simerly & Li, 2000), and the appropriate structures and

processes for survival and success. Sharfman and Dean (1991) find that terms for describing the environment generally fall into three categories: “complexity (the level of complex knowledge that understanding the environment requires), instability or dynamism (the rate of unpredictable environmental change) and resource availability (the level of resources available to firms from the environment)” (p.683). Similarly, the EO model developed by Lumpkin and Dess (1996) illustrates that environmental factors such as dynamism, munificence (resource abundance), complexity, and industry characteristics impact firm performance.

Open-systems models offer explanations of “how variations in resource environments and constraints shape firm outcomes” (Baker & Nelson, 2005, p.330), thus moving beyond internally-focused models and theories. While some of this work is limited by the assumption that “the nature of resources is largely given and unproblematic” (Baker & Nelson, 2005, p.331), others propose that there is room for interpretation in terms of how resources can be used and combined to optimally service organizations (Penrose, 1959). This thinking helped to pave the way for research on entrepreneurial bricolage, which assumes that entrepreneurs and organizations have influence on the impact of the resources available to them.

4.2 Entrepreneurial Bricolage

Entrepreneurship research increasingly recognizes the role of social networks (Granovetter, 1985; 1973) and social capital (Adler & Kwon, 2002) in the actions and behaviours of entrepreneurs (Jack & Anderson, 2002). Di Domenico et al. (2010) note that the relationships between social enterprises and their networks are a key part of the bricoleurial toolkit. The collaborative nature of the SE sector and the importance of partnerships and cooperation have led researchers to emphasize these networks in the field (Dufays & Huybrechts, 2014; Hervieux & Turcotte, 2010; Moore & Westley, 2011). As highlighted in section 3.5, social enterprises tend to

be less autonomous and competitive than their commercial counterparts (Lumpkin et al., 2013). Accumulating social capital helps to build competitive capacity and sustain the organization's position in the market since "Social ventures can gain more legitimacy and support through social networks by creating strong relationships, bonding, and commitment" (Gimmon & Spiro, 2013, p.186) among stakeholders.

The social nature of entrepreneurship offers rationale for a cross-disciplinary approach to research that borrows from the social sciences. The concept of bricolage was introduced by Lévi-Strauss (1962), a French anthropologist and ethnologist who argued for the universality of human characteristics. While bricolage has been applied across a variety of phenomena, Baker and Nelson (2005) were instrumental in linking it to the study of entrepreneurship. Generally defined as "making do with the resources at hand" (Stinchfield et al., 2013, p.890), bricoleurs tend to be most concerned with getting by and responding to local markets. There are three main characteristics that together describe bricolage in entrepreneurship (Baker & Nelson, 2005). The idea of *resources at hand* is the tendency of bricoleurs to gather a set of "odds and ends" that may be of use at one time or another, such as physical resources, skills and knowledge. *Recombination of resources* refers to bricoleurs' ability to identify new ways of combining and reusing resources in ways that they were not originally intended. *Making do* suggests a tendency for an action orientation to problem-solving, and a disregard for limitations in existing materials or processes in favour of experimentation. In their review of literature from across domains Baker and Nelson (2005) developed an integrative definition of bricolage as "making do by applying combinations of the resources at hand to new problems and opportunities" (p.333). Since 2005, the article has been referenced over 2,200 times and has led to some of the most

influential work in social entrepreneurship (e.g., Zahra, Gedajlovic, Neubaum & Shulman, 2009; Battilana & Dorado, 2010; Dacin, Dacin & Matear, 2010; Santos, 2012; Pache & Santos, 2013).

Mair and Marti (2009) call for the incorporation of bricolage into the study of institutional entrepreneurship and propose that it can be understood as a process that “encompasses the continuous combination, re- combination and re-deployment of different practices, organizational forms, physical resources, and institutions” (p.431). The link between bricolage and institutional entrepreneurship is also referenced by Phillips and Tracey (2007) who note that entrepreneurship literature is dominated by commercial new venture formation, leading to an unbalanced view of the field that overshadows other forms such as social enterprise. They further note the importance of distinguishing between concepts that are common to entrepreneurship of all kinds versus those that are relevant only to the formation of new commercial ventures.

This focus in the field on new ventures is due in part to the fact that the start-up period can be volatile and resource-constrained. Senyard, Baker, Steffens and Davidsson (2014) argue that “the use of bricolage makes new firms more likely to develop innovative business ideas” (p.212) and find support for their claim. While previous research had suggested that benefits taper off as behaviours associated with bricolage increase, they found evidence of positive correlations even at higher levels. Bricolage has also been associated with new venture survival. For example, Stenholm and Renko (2016) study a sample of 2,489 Finnish entrepreneurs who started firms between 2005 and 2010. They examine bricolage as a mediator in the relationship between entrepreneurial passion and firm survival, and find a higher survival rate in 2011 amongst those who exhibited bricolage behaviours. More specifically, they find support for the mediating role that bricolage plays in the relationship between entrepreneurs’ passion for

inventing and developing, and survival. Their results show that entrepreneurs' passion for founding did not relate significantly to bricolage or survival.

Davidsson, Baker and Senyard (2017) validated the measure of entrepreneurial bricolage behavior analyzed in this thesis, based on the one developed by Senyard et al. (2014). They note that while much bricolage research in the context of organization studies has focused on its relationship with innovation, emerging topics include the effects of environmental factors and its application to SE and emerging markets.

4.3 Bricolage in Social Contexts

As noted by Austin, Stevenson and Wei-Skillern (2006) and described in section 2.3, social enterprises often operate in resource-constrained environments, due in part to the fact that the social nature of their mission can prevent them from tapping into traditional capital markets. Banks and other traditional investors are often risk-averse in relation to social enterprises since their potential financial return on investment is typically lower than for commercial entities. Austin et al. (2006) propose that “human and financial resource mobilization will be a prevailing difference [between social and commercial enterprises] and will lead to fundamentally different approaches in managing financial and human resources” (p.3). Social entrepreneurs rarely base their decision to start a social enterprise based on constraints in the external environment (Dacin et al., 2010), but the need to mobilize resources in constrained contexts makes bricolage a particularly relevant construct for SE. According to Di Domenico, Haugh and Tracey (2010), “Resource constraints push the social enterprise into finding innovative ways of using existing resources and acquiring new resources in order to both achieve financial sustainability and generate social outcomes” (p.683).

Zahra et al. (2009) describe the “social briocoleur” as those working at the local level and able to understand and address social needs on the ground, as well as being particularly critical for generating knowledge of local environmental conditions and available resources. Di Domenico, Tracey and Hough (2010) coin the term “social enterprise bricoleur” and recognize the importance of responding to unmet community needs by making do and creating something from nothing. Adding to the constructs typically associated with bricolage, they note social value creation, stakeholder participation and persuasion as particularly important in social contexts. These “social bricolage” behaviours lead to community and social benefits, and enable the social enterprise to move “beyond the constraints of institutional rules and structures to fashion its own bundle of resources and repertoire of strategies and activities” (p.699).

Desa (2012) studies the role of bricolage in international social ventures in terms of how it can enable resource mobilization, as well as how it can be transformative in institutional settings. He argues that:

“Social ventures that engage in bricolage thus do not merely cobble together resources, but can be part of a process of actor-initiated institutional change. [...] The ability of bricolage to repurpose resources implies that any legitimacy associated with the resource may also be repurposed.” (Desa, 2012)

Thus, as social enterprises seek normative legitimacy (Suchman, 1995) to gain credibility from policy-makers, access funding and other resources, being skilled in bricolage behaviours can help them in their efforts. For example, it has been shown that social ventures who frame their services in alignment with local governments were more able to access resources than those who do not (Desa, 2012). This acquisition of resources is key to any social venture’s survival and “Researchers have found that social entrepreneurs engage a variety of creative means of

financing and may change stakeholders frequently as they seek new funding options” (Lane & Casile, 2011, p.251).

Bricolage has also been linked to organizations’ social impact in SE, due to the fact that associated behaviours can act as a tool for discovering new ways to address social problems, fill unmet needs, access resources and overcome barriers (Bacq, Ofstein, Kickul, & Gundry, 2015). Given that bricolage represents a process to mobilize existing resources that are undervalued, slack, or discarded – and therefore often available for free or low cost (Desa & Koch, 2014), it is plausible that organizations skilled in bricolage will be more likely to access the resources they need to pursue their social mission in constrained environments. When firms have slack resources, they are able to focus on goals beyond short-term financial survival – that is, in the case of social enterprises they can focus relatively more attention on their social goals (Stevens, Moray, & Bruneel, 2015).

5 Social Impact in Social Enterprises

Social enterprises employ business models to generate financial resources through the sale of goods and services to create social value. This enables them to be less reliant on grants and donations, although critiques suggest that SE serves more so as a vehicle for perceived legitimacy in the eyes of funders and policymakers than a means to financial self-sustainability (Dey & Steyaert, 2012; Dey & Teasdale, 2015). Regardless of the motive, social enterprises strive to achieve both wide-scale social impact and long-term financial sustainability (Gupta, Beninger, & Ganesh, 2015) and therefore must balance social and economic priorities. Their economic goals enable them to generate the financial resources needed to achieve their intended social impact. The resulting dual nature of the organizational mission and the complexity of stakeholder relationships in social contexts are distinct contextual factors that affect the

assessment of social impact in social enterprises. “The performance of a social enterprise is measurable through the joint pursuit of satisfying its social mission, ensuring its survival capability and generating development resources through the market” (Imperatori & Ruta, 2015). While commercial entrepreneurship may have indirect social benefits associated with its activities, the economic benefits gained in SE are considered as a means to ensure the sustainability of working towards the social mission (Henry, 2015; Ormiston & Seymour, 2011).

As discussed in section 2.2, a distinguishing element of social enterprises is their social mission; therefore, success depends on the extent to which they achieve this mission and thereby create social impact. Social impact requires innovation and is about “engaging with social problems and trying to generate solutions for these problems” (Corner & Ho, 2010, p.636). In a content analysis of SE research, Moss, Lumpkin and Short (2008) find that the creation of social value, or impact, is the distinguishing dependent variable in the field, and that little overlap exists between dependent variables referenced in commercial and social entrepreneurship. However, despite general consensus regarding the central role of social impact in SE, much confusion exists about how to effectively measure it, especially in large populations.

Measuring the performance of social enterprises can be a challenging task due to the heterogeneity of stakeholders (Arena et al., 2015). Furthermore, stakeholders in social contexts tend to be on more equal footing, requiring social entrepreneurs to have to take a wider range of interests into consideration to achieve both social and economic outcomes (Smith & Woods, 2015). As discussed in section 2.4, quantitative measures designed in commercial contexts are often applied in social contexts, thus oversimplifying issues related to perceptive differences and multicausality associated with social impact assessment (Austin et al., 2006).

Arena et al. (2015) propose a model for performance measurement in social enterprises based on three dimensions: efficiency, effectiveness and impact, where efficiency is a ratio between outputs (products produced) and inputs (resources employed). In this model effectiveness pertains to shorter, output characteristics. For example, management effectiveness refers to how well the management team runs the operations (e.g., fewer service disruptions, fewer complaints, etc.) and social effectiveness refers to the strength of the relationships the enterprise has with its stakeholders. Impact captures longer-term effects on communities such as shifts in knowledge, values, life conditions and status. Both effectiveness and impact are assessed in terms of their alignment with the organizational mission. This model also emphasizes that social enterprises are “organizations - companies - that aim to provide social services, but they can accomplish this task only if they can ensure their financial viability to operate” (p. 659). Organizations’ ability to gain access to much-needed financial and social capital through stakeholder contributions is essential for survival (Parrish, 2010) and should therefore be considered in performance evaluations.

Liu, Eng and Takeda (2015) note that social enterprises that have developed marketing capabilities that enable them to build capacity for identifying societal needs, and developing appropriate and accessible products position them for higher performance. They assess performance in terms of both social and economic outcomes. Similarly, Zahra et al. (2009) propose the notion of “total wealth” – a combination of social and economic wealth - noting that “any definition, measurement or evaluation of social entrepreneurship should reflect both social and economic considerations” (p.522). In a meta-analysis of outcomes for microcredit, Chliova, Brinckmann and Rosenbusch (2015) examine both economic and social measures including categories such as venture survival, growth and profitability, as well as the financial well-being,

health and education of clients. In this instance, success of the social innovation (microcredit) connects to the beneficiaries' financial sustainability and well-being.

Battilana et al. (2015) hypothesize that economic productivity (associated with efficiency in transforming inputs into economic outputs) is positively related to social performance, and that it equips organizations with higher profitability and greater capacity for innovation. Sharir and Lerner (2006) identify three main criteria for social venture success: the degree to which declared goals are achieved (i.e., mission achievement), its ability to access sufficient resources for continuity and sustainability of products/ services, and resource availability for future growth.

6 Conclusion

This chapter provides the theoretical framework on which the proceeding analytical model is based. Theory supports the proposition that EO and bricolage play an important role in the social impact of social enterprises. How these constructs affect performance is further developed in the analytical model and tested in the analysis. Chapter 2 presents each of the model variables studied in this thesis, a series of hypotheses regarding their effect on performance, and a visual depiction of the model that is tested in the analysis.

CHAPTER 2: ANALYTICAL MODEL

The following sections build on the theoretical constructs and propositions presented in Chapter 1 to develop the analytical model for this thesis. The model starts from the premise that insights to the field of social entrepreneurship (SE) can be gained through the investigation of how existing entrepreneurship constructs apply in social contexts (Dacin et al., 2010), and that factors exist that distinguish SE from commercial ventures (Austin et al., 2006). The model presented here aims to examine how entrepreneurial orientation (EO) (Covin & Slevin, 1991), bricolage behaviours (Baker & Nelson, 2005) at the organizational level, and economic productivity (Battilana et al., 2015) affect perceived social impact in social enterprises.

1 Dependent Variable: Perceived Social Impact

As discussed in section 5 of Chapter 1, assessing social impact performance in social enterprises is a challenging task. Social enterprises essentially embody the organizational forms of both business and charity and therefore represent hybrid organizations with unique challenges (Battilana & Lee, 2014). As a result, their sustainability and ability to achieve their mission (perform) “depends both on the advancement of their social mission and on their commercial performance” (Battilana & Lee, 2014, p.399). This dual mission creates competing institutional logics that need to be balanced by the organization, and that present the risk of mission drift (Pache & Santos, 2013; Voltan & De Fuentes, 2016). Performance in social enterprises can be understood both in terms of financial sustainability and social impact. However, as discussed in the introduction and outlined in Proposition 6 (Chapter 1), while both social and economic goals are important, social value creation is the primary purpose of SE (Austin et al., 2006; Moss et al., 2008) and therefore represents the dependent variable in this model.

Social enterprises, be they for-profit or not-for-profit (NFP) organizations, have been touted as particularly well positioned to contribute to socio-economic development given their hybrid nature. Social impact is the primary dependent variable for SE research (Moss et al., 2008); however, its measurement is an elusive task due to lack of common measures, the heterogeneity of the field and the vast differences in desired outcomes (Arena et al., 2015; Barraket & Yousefpour, 2013). At the same time, social enterprises are increasingly competing for scarce resources and are using social impact evaluation to articulate their value to potential funders (Polonsky, Landreth Grau, & McDonald, 2016). This risks an oversimplification of the complexity of social impact and the long term goal of systems change (Antadze & Westley, 2012).

Many of the problems that social enterprises aim to address are complex or “wicked” in nature (Dentoni et al., 2016). In this sense, social impact pertains to the ability of the innovation to address or tame wide-reaching wicked problems by moving beyond immediate symptoms to reach their underlying causes. It is about finding solutions to social problems that negatively affect lives – that is, “about resolving social issues such as generating income for the economically disadvantaged or delivering medical supplies to poverty-stricken areas of the globe and requires innovation just as economic value creation in the commercial sector does” (Corner & Ho, 2010, p.636).

As outlined in the model developed by Arena et al. (2015), social performance can be examined from the perspective of efficiency, effectiveness, and impact. Metrics associated with efficiency and effectiveness tend to be shorter-term and output-based, whereas understanding social impact is based on longer-term outcomes. Depending on the type of problem being addressed, the desired short-term outputs and longer-term outcomes may look very different.

Outcomes can also be complex and uncertain, and increasingly researchers are recognizing that impact is a multidimensional construct requiring an integrated evaluation framework (Chmelik et al., 2016). In addition, it is often difficult to attribute impacts to one organization (Cordery & Sinclair, 2013) due to the number of interconnected contributors. Barraket and Yousefpour (2013) highlight that much existing research in the area has focused on organizations in isolation of their external stakeholders, despite the fact that performance occurs in relation to others. Yet, a distinguishing element of innovation in SE is “the collective sharedness of people driving and owning social change” (Dawson & Daniel, 2010, p. 10). Hervieux and Voltan (2019) acknowledge these complexities and the inherent interrelatedness of social impact across efforts, and recommend a systems level approach to understanding impact. However, such approaches do not lend themselves well to empirical survey studies such as the one deployed in this thesis.

The challenges associated with measuring performance in social enterprises extend to the traditional NFP sector. First, the non-profit status limits the accuracy of relying only on financial indicators and second, “the ambiguous nature of goals held by non-profits mitigates universal criteria. Consequently, there is no easy answer to understanding performance; rather, each method provides one perspective” (Brown, 2005, p.318). While these challenges are real, in order to advance construct measurement in SE research needs to move beyond anecdotal evidence to empirical studies with larger populations (Boateng, Akamavi, & Ngoro, 2016; Moss et al., 2008). Boateng et al. (2016) examine performance indicators in British charities and find support for the notion that a set of measures versus a single one is best for assessing success in this context, and that non-financial measures are important to include. Their analysis produced five broad sets of factors that measure performance: financial measures, client satisfaction, management effectiveness, stakeholder involvement and benchmarking.

Despite the challenges associated with assessing social impact, it was deemed important for this research to find a way to extend understanding of performance beyond output-based measures such as the number of clients served, etc. Brown (2005) developed a 5-item scale for measuring perceived organizational performance in NFPs that assesses respondents' views on whether clients' lives improved as a result of the organization's work; changes to the quantity and quality of goods and/or services offered; client satisfaction; and, the organization's success in meeting its goals. While the perceived nature of the measures makes the responses subjective, the questions included are sufficiently generic to be relevant to a wide range of organizations. This scale is used as the dependent variable for social impact in this thesis and the scale items are presented in Chapter 4. While not perfect, the mix of questions pertaining to both quality and quantity of goods and services delivered, and the effectiveness the organization has in achieving its social mission, offer a more holistic approach to assessing impact than relying on one question or more quantified options.

2 Independent Variable: Entrepreneurial Orientation

Many studies have examined the effect of EO on performance in for-profit contexts. However, as noted in Chapter 2, despite the fact that much overlap exists in the entrepreneurship theories on which both EO and SE are built (e.g. those of Say, Schumpeter, Drucker) and in the types of organizational behaviours identified for each, there has been little empirical work to date that applies EO to social contexts. In the following sections, studies assessing the impact of EO on performance in commercial ventures are explored, as well as hypotheses for how EO might affect social impact in social enterprises. Entrepreneurial orientation (Covin & Slevin, 1991) and its three dimensions (proactiveness, risk-taking and innovativeness) represent the independent

variable in this model, built on the notion that social enterprises are more entrepreneurial in nature than traditional NFPs, which increases their social impact.

2.1 EO and Performance

A substantial body of work pertaining to EO exists in the context of commercial firms. Rauch, Wiklund, Lumpkin and Frese (2009) conduct a meta-analysis to review and evaluate the EO-performance relationship, as well as potential moderators affecting this relationship. They find significant evidence of a positive relationship with an N of 14,259 companies. As in social contexts, performance in commercial ventures is a multidimensional construct consisting of financial and nonfinancial measures, and therefore the effect of EO varies based on indicators used. Despite these differences, a consistently positive relationship persists.

Entrepreneurial orientation is “a critical competence of entrepreneurial firms, as it is regarded as a requirement of such firms’ ability to identify and exploit opportunities which create value” (Kraus et al., 2017, p.3). It has been linked to performance in terms of capacity of firms to identify innovative opportunities with potentially large returns, target premium market segments, and obtain first mover advantages (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003).

Wiklund and Shepherd (2005) find that:

“businesses that face performance constraints, in terms of a stable environment and limited access to capital, can be superior performers if they have a high EO. [...] Apparently, a high EO provides businesses the ability to find and/or discover new opportunities that can differentiate them from other firms and create a competitive advantage. When the environment is dynamic and the firm has considerable access to capital, small business performance apparently might be improved by a more inwardly

focused orientation that better capitalizes on these abundant opportunities by focusing on efficient exploitation.” (p.72)

Given the resource scarce environments within which social enterprises tend to operate, it stands to reason that a greater relationship may exist between EO and social impact in these scarce environments than in munificent ones. Boso, Story and Cadogan (2013) examine entrepreneurial firms in the context of a developing economy and find evidence of a positive relationship between EO, greater innovativeness and new market creation. However, the uncertain and weak institutional and regulatory environment that firms were operating in created risks for adopting an EO. The research indicated that strong social network ties improved the ability to operate in this environment, and therefore increased the EO-performance relationship. Stam and Elfring (2008) similarly find evidence that new ventures can be unsuccessful in translating EO to higher performance levels in the absence of strategic social capital resources such as network centrality and bridging ties. While this study does not explicitly examine social capital in organizations, the collaborative nature of SE provides some theoretical justification for a strong relationship between EO and performance in this context.

2.1.1 EO and Social Impact. Social enterprises differ from traditional, more conservative NFPs “by their deliberate inclusion of an entrepreneurial culture and orientation” (Zahra, Newey, & Li, 2014, p.144) and “implicit focus on efficiency and the effective use of resources” (Choi & Majumdar, 2014, p.368). This entrepreneurial tendency (i.e., EO) has been linked to the sustainability (Zahra et al., 2009) and effectiveness (Diochon & Anderson, 2009) of social enterprises. Whether the entrepreneurial pursuit entails the goal of growing financial profits (commercial ventures) or building social value (social ventures), the process essentially consists of the identification and exploitation of opportunities for achieving those goals (Stevens et al.,

2015; Webb et al., 2010). Dacin, Dacin and Matear contend that “the greatest opportunity for scholars interested in social entrepreneurship exists in examining valuable assumptions and insights from theories inherent in existing entrepreneurship frameworks and applying these insights in ways that address phenomena in the social entrepreneurship context” (p.37).

Weerawardena and Mort (2006) highlight the controversy associated with defining the SE construct and argue that it should be understood within its broader competitive environment. Borrowing from EO, they develop a bounded model that highlights the importance of innovativeness, proactiveness and risk management within the context of the external environment, the social mission, and organizational sustainability. Based on nine in-depth case studies, they propose that social enterprises seek to create social value by engaging in EO behaviours (Weerawardena & Mort, 2006).

Miles, Verreynne, Luke, Eversole and Barraket (2013) find that “social enterprises that exhibit a social value orientation have decision-makers who proactively take the risks to innovate their products, processes, strategy or business propositions to more effectively and efficiently meet the needs of the poor” (p.91). Their study of 85 Australian social enterprises offers evidence that a social value orientation (behaviours associated with EO) is significantly and positively related to social impact performance, but not to economic performance. They suggest that this may be due to economic performance not being an organizational objective in and of itself, and that managerial constraints may play a role in SE. Coombes, Morris, Allen and Webb (2011) examine the influence of non-profit boards on entrepreneurial orientation and performance. In a sample of 140 NFPs they test hypotheses that organizations with a high EO will have greater social and economic performance. Like Miles et al. (2013), they find evidence of a significant positive relationship between EO and social performance, but not with economic

performance. They suggest that performance in NFP contexts is more complicated than in commercial contexts, and that given the primacy of the social purpose financial measures may not be an effective way to gauge performance.

H1: Organizations that exhibit higher levels of entrepreneurial orientation are more likely to have greater perceived social impact.

2.2 EO Dimensions and Performance in Social Enterprises

Rauch et al. (2009) address the question of whether EO should be considered a unidimensional or multidimensional construct. They find that the dimensions of EO typically show high intercorrelations with each other (from $r = .39$ to $r = .75$) and that, as a result, most studies combine the construct into one single factor. This unidimensional conceptualization would suggest that EO should relate consistently to performance (Covin & Slevin, 1989). However, “More recent theorizing suggests that the dimensions of EO may occur in different combinations (e.g. (Covin, Green, & Slevin, 2006; Lumpkin & Dess, 2001), each representing a different and independent aspect of the multidimensional concept of EO (George, 2011)” (Rauch et al., 2009, p.764). It is therefore worth examining both the effect of a single factor EO as well as how each dimension (i.e., innovativeness, risk-taking, proactiveness) relates to performance variables. Each dimension is examined in greater detail in the sections below.

2.2.1. *Innovativeness in Social Enterprises.* Social innovation is an integral component of SE and social entrepreneurs are considered innovators who drive social change and transformation (Choi & Majumdar, 2014). Perrini and Vurro (2006b) place innovation at the centre of the SE process and highlight that particularly in the context of SE, innovation is not a one-dimensional construct. Social entrepreneurs “tend to innovate simultaneously or progressively on four different fronts: products and, methods of organization and/or production,

production factors and market relations (Perrini & Vurro, 2006b, p.73-74). Innovativeness has been shown to have a significant relationship with social enterprise performance including organizations' ability to attract financial resources and retain partnerships (Meyskens, Robb-Post, Stamp, Carsrud, & Reynolds, 2010).

Innovation in SE manifests as the decision to exploit an opportunity to enhance/maintain social well-being or create social change; the innovation must then be disseminated to achieve the desired change (Perrini & Vurro, 2006a). In this vein, Seelos and Mair (2017) examine the relationship between innovation and scaling for impact in social enterprises and argue that “innovation per se does not create impact. Innovation generates the *potential* for impact creation. Scaling creates impact from innovation” (p. 5). They argue that while innovation and scaling are often treated separately, they should be considered as integrated processes. From their perspective, innovation is linked to impact creation - that is, “benefits created for the people and communities that an organization serves” p.21. On the other hand, scaling (defined as “organizations do more of what they are good at or do things better or both” p.31) allows organizations to create positive impact from areas where they have established success, versus from new activities. This suggests that while innovative organizations may have greater impact, that impact is amplified by the enterprise's ability to scale its efforts. As noted in section 2.2.3, proactiveness in organizations helps to identify opportunities to scale impact. As a result, while innovativeness is directly linked to increasing social impact, its effect may be amplified by proactiveness. While out of the scope of the analytical model, a future research direction could include examining the role of proactiveness as a moderator in the relationship between innovativeness and social impact.

H1a: Innovativeness behaviours in social enterprises are positively associated with perceived social impact.

2.2.2 Risk-taking in Social Enterprises. Morris, Webb and Franklin (2011) examine EO in the context of NFP organizations. They argue that the NFP context is distinct from the commercial context for which EO was developed and propose adapted dimensions based on the three-dimensional model of EO. For the risk-taking dimension, they highlight the particular challenge faced by NFPs related to how to provide social benefits as widely as possible without jeopardizing the financial sustainability of the organization, noting that the “ultimate risk in a nonprofit concerns an inability, or reduced ability, to achieve the social purpose” (p. 960). Morris et al. (2011) contend that the conventional framing of risk-taking in terms of willingness to accept economic losses could fail to consider potential losses related to social impact or stakeholder support.

Syrjä et al. (2013) apply EO (Covin & Slevin, 1988, 1989) to three qualitative case studies in Finnish social enterprises. Based on interview data they develop three dimensions and propositions for the SE context, which include risk-taking, innovativeness and proactiveness, and persistence. Risk-taking is described as:

Proposition 1 (Risk-taking): Due to the social mission, the entrepreneur is willing to take substantial personal financial risks. However, (s)he does not do anything which might risk the social identity. (p.5)

The distinction is made between personal and organizational risk, noting that while social entrepreneurs engage in risk-taking activities associated with starting and operating the venture, they are less willing to take risks to jeopardize the social mission of the organization.

Weerawardena and Mort (2006) note that social enterprises strive to achieve social value creation through the display of innovativeness, proactiveness and risk management, but that they

exhibit lower levels of risk-taking propensity than for-profit firms due to the complexity and turbulence in their environments. They propose that social enterprises seek to generate social value creation through innovativeness and proactiveness, and through risk management (vs. risk-taking). In their theoretical assessment of EO in social contexts, Lumpkin et al. (2013) suggest a more uncertain relationship between risk-taking behaviours and social value creation than for behaviours associated with innovativeness and proactiveness. This stems from the fact that taking greater risks may jeopardize the viability, sustainability and social impact of the venture, and that benefits associated with risk-taking may be disproportionately allocated across stakeholders. Based on this prior research, it is possible that risk-taking may have a unique relationship with social impact. However, given the expectation that EO overall will have a positive, predictive relationship with social impact it is expected that risk-taking will mirror this relationship.

H1b: Risk-taking behaviours in social enterprises are positively associated with social impact performance.

2.2.3. Proactiveness in Social Enterprises. As noted in Chapter 2, different opportunities exist in the context of SE based on the focus of addressing market failures (Austin et al., 2006). The pursuit of these opportunities is a key part of the SE process. The identification of opportunities for solving social problems or creating social value is a key part of the SE phenomenon, which emulates commercial entrepreneurship in terms of process (Corner & Ho, 2010). Galera and Borzaga (2009) acknowledge the diversity of definitions in the field of SE and find commonality in their “problem solving” nature. They note that rather than being perceived as dichotomous with commercial entrepreneurship, SE should be seen as part of a broader continuum. Proactiveness in the context of SE has been described as imperative to survival, “to

serve the market and to grow in the market” (Weerawardena & Mort, 2006, p.28). Morris et al. (2011) describe proactiveness in NFPs as “the degree to which an organization supports the anticipatory development and implementation of innovations in advance of others, thereby enabling growth and enhanced performance” (p. 959). This could include the extent to which an organization is socially innovative relative to another; the extent to which an organization considers innovative funding sources beyond traditional granting and donor sources; and, how much the organization is willing to implement change despite the expectations of key stakeholders.

Social impact from the effective scaling of social innovations requires systematic and strategic approaches on the part of social enterprises (Dees, Battle Anderson, & Wei-skillern, 2004). In order to effectively achieve impact and scale, organizations must be able to recognize opportunities in their environment that are receptive and conducive to social innovations, have the skills required to break away from existing norms and rules that guide behaviors, and influence others to do the same (Dorado, 2005). In other words, they need to be proactive in seeking new opportunities to disseminate their innovations, even when they might be at risk of jeopardizing their legitimacy. Organizations thus need to identify opportunities for affecting change, and develop partnerships and other means through which to spread their innovations. This process inherently involves some degree of risk that is associated with growth and the exploitation of such opportunities. There is always a chance that the innovation will fail to be implemented correctly by others, not have the intended impact on other groups, or not be well received (Dees et al., 2004). In this sense, while innovation and risk-taking are important to achieving social performance in social enterprises, behaviours associated with proactiveness may be most important in ensuring that innovations achieve their intended impact.

H1c: Proactiveness behaviours in social enterprises are positively associated with perceived social impact.

3 Mediator Variable: Bricolage

As noted in Chapter 2, the resource constraints faced by social entrepreneurs (Austin et al., 2006) mean that they often need to creatively access, recombine and “make do” with existing resources – in other words, they engage in bricolage behaviours (Baker & Nelson, 2005) to sustain their activities. Stinchfield et al. (2013) find that bricoleurs tend to perform lower in financial terms than other types of entrepreneurs, yet have an ability to survive for remarkable periods of time in resource-constrained environments – even serving resource-constrained consumers. They typically have a lack of debt and are able to exist in environments of scarcity.

In their description of the “social bricoleur”, Zahra, Gedajlovic, Neubaum and Shulman (2009) note that associated activities are often small scale and local in scope, and highly dependent on knowledge of the specific context. This understanding of the concept is challenged by Bacq, Ofstein, Kickul and Gundry (2015) who conduct an online survey of 123 social entrepreneurs and test the hypothesis that “bricolage is positively related to the scaling of social impact for social entrepreneurial firms” (p.286). Using an 8-item measure for entrepreneurial bricolage (Steffens, Senyard, & Baker, 2009) they find a positive linear relationship between bricolage and scaling social impact.

While bricolage has been theorized in social contexts (Di Domenico et al., 2010), little empirical work exists that examines how it manifests in social enterprises. Despite the recognition that existing entrepreneurship constructs are ripe for exploration in social contexts (Dacin et al., 2010) and that the field needs to move beyond conceptual studies (Short et al., 2009), virtually no quantitative studies to date have examined how EO and bricolage interact to affect the performance of social enterprises. This analysis is a key contribution of this thesis.

3.1 EO and Bricolage in Social Enterprises

While the dimensions associated with the constructs of EO and bricolage are distinct, parallels exist in that each represents organizational behaviours to help achieve higher levels of performance. Dorado and Ventresca propose that entrepreneurial bricolage offers a platform for work in the context of complex social problems where “by making do with the resources at hand, actors enact opportunities they could not have perceived prior to their engagement” (p. 72).

According to Kickul, Janssen-Selvadurai and Griffiths (2012), bricolage enables social entrepreneurs to “use creative approaches to attract and distribute resources, identify overserved or unserved market segments, and offer products and services that are simpler, less costly, and “good enough” - all characteristics of catalytic innovators (Christensen, Baumann, Ruggles, & Sadtler, 2006)” (p. 479).

Gundry, Kickul, Griffiths and Bacq (2011) describe SE as primarily concerned with finding innovative solutions to the most pressing social problems. Given that SE tends to flourish in resource-constrained environments, they propose that the extent to which entrepreneurs engage in bricolage may be a key determinant of social innovation. In a survey of 113 social entrepreneurs, they find that the relationship between the local innovation ecology (existing infrastructure for innovation) and the degree of catalytic innovation (new solutions that are sustainable and scalable) is mediated by bricolage. This finding suggests that bricolage is “one of the key behaviors that social entrepreneurs must adopt when they encounter institutional constraints and are without regulatory or political structure or support. The ability to mobilize resources available to social entrepreneurs may allow them to generate the types of needed solutions and innovations” (p. 17).

In a study focused on new, resource-constrained commercial firms, Senyard, Baker, Steffens and Davidsson (2014) examine why some firms are more able to be innovative than others. Through a large panel study of Australian firms they find that higher levels of bricolage result in greater innovativeness, and that the benefits of bricolage do not decline at high levels. While the research population did not consist of social enterprises, the fact that the firms faced resource constraints suggest that the findings may be transferable to social contexts.

As illustrated by these above-mentioned studies, while EO and bricolage have not been empirically studied in the context of social enterprises, linkages have been made between bricolage and organizations' ability to innovate. Organizations with a high EO actively identify and pursue new market opportunities, take risks for greater returns, and seek to be innovative. In commercial firms with access to traditional capital resources, EO has consistently been linked to performance across a wide range of studies (Rauch et al., 2009). The effective use of resources is also critical to firm performance. As in commercial contexts, social entrepreneurs combine and convert resources as part of their operational processes and rely on resources to create social value (Meyskens et al., 2010). However, in social contexts traditional capital options are typically not available and "Resource constraints push the social enterprise into finding innovative ways of using existing resources and acquiring new resources in order to both achieve financial sustainability and generate social outcomes" (Di Domenico et al., 2010, p.683). In such cases, bricolage behaviours become increasingly important for achieving social impact – even for organizations that operate in an entrepreneurial fashion. With this in mind, it is hypothesized that bricolage acts as a mediator in the relationship between EO and perceived social impact, as well as between each dimension of EO and perceived social impact.

H2: The relationship between entrepreneurial orientation and social impact is mediated by bricolage behaviours.

H2a: The relationship between innovativeness and social impact is mediated by bricolage behaviours.

H2b: The relationship between risk-taking and social impact is mediated by bricolage behaviours.

H2c: The relationship between proactiveness and social impact is mediated by bricolage behaviours.

4 Independent Variable: Economic Productivity

As discussed, social enterprises are hybrid ventures that embody both social and economic goals (Battilana & Lee, 2014). Moss et al. (2008) find that while social value creation is the dominant dependent variable in the field, financial indicators are also often referenced. “In the non-profit context, opportunities are not tied to creation of wealth for owners, but rather to the need to serve a social purpose while remaining financially sustainable, adding a layer of complexity to the organization” (Morris et al., 2011, p.951). Whether they adopt a for-profit or NFP legal structure, social enterprises are distinct from traditional charities in that they generate at least a portion of their revenues via market-based sales. They typically operate from a funding mix that includes in-kind donations, grants and contributions, and loans and investments in addition to earned income generated by the organization’s activities (Bacq, Hartog, & Hoogendoorn, 2013), although greater funding diversity does not necessarily enhance venture sustainability (Gimmon & Spiro, 2013). Resource constraints facing social enterprises (Austin et al., 2006) mean that strong financial management is crucial, as well as behaviours that seek resources on an ongoing basis (Parente, Lopes, & Marcos, 2014).

Dacin et al. (2010) argue that while focusing on social rather than economic outcomes makes sense in the context of SE, “the creation of social value is often closely linked to economic outcomes that, in turn, produce financial resources social entrepreneurs use to achieve

their social mission” (p.42). Therefore, ignoring outcomes other than social impact could result in the omission of factors that are critical to success in social enterprises. Choi and Majumdar (2014) highlight market orientation as an integral part of SE that is associated with heightened efficiency and effectiveness through commercial activities, and the financial sustainability of the organization.

Financial outcomes are also important for funders of social ventures, who want to assess organizations’ double bottom line in terms of their capacity for social impact and economic viability (Kickul et al., 2012). In order to attract investment from such funders, organizations need to illustrate their ability to perform financially (Haugh, 2005). Surplus revenues and slack resources are also critical for the long-term survival of the organization (Stevens et al., 2015; Tracey & Phillips, 2007). As a result, while social entrepreneurs are not motivated by profits and revenue generation per se, they need to be financially viable in order to continue their activities (Boluk & Mottiar, 2014). Young and Kim (2015) suggest that a lesson for new social enterprises is to create and maintain reserve resources to help them in times of scarcity.

Economic productivity is an economic measure used to assess performance in firms. Battilana, Sengul, Pache and Model (2015) define economic productivity as an organization’s “overall efficiency in turning inputs into economic outputs” (p.1661) (calculated as annual sales divided by the number of employees) and argue that high levels of social impact depend in part on high levels of economic productivity since it leads to higher margins, profits, perceived legitimacy and capacity to innovate. In a regression analysis of French panel data of social enterprises between 2003 and 2007 their hypothesis that economic activity is positively associated with social performance is strongly supported. However, they also find that “social imprinting” – that is, the founding team’s early emphasis on achieving the social mission – can

also weaken social performance by negatively affecting economic productivity. In other words, over-emphasis on the social mission versus economic goals can ultimately have a detrimental effect on social value creation. Based on this research, there is an expectation that economic productivity will be positively correlated with perceived social impact.

H3: Greater economic productivity in social enterprises is positively associated with higher levels of perceived social impact.

5 Control Variables

There are a range of organizational characteristics that could influence the relationships between the variables in the model. The control variables included here include the age of the social enterprise, total revenue, number of full-time employees, whether the organization operates as a for-profit or not-for-profit (NFP) enterprise, and mission type. Data collected in the survey for the organizational age was in response to the question “In what year did your organization begin selling products or services?” rather than the year when the organization was founded. This was to reflect when SE activities began since, in some cases, the organization existed for a longer period of time but did not engage in revenue generation. Total revenue was calculated based on answers to the question “What was your organization’s total revenue from all sources (sales of goods and services including service contracts with government, grants, loans and donations) in 2016?” To determine the number of full-time employees, respondents were asked “How many full time paid employees (30 or more hrs/week) were employed by your organization during 2016?” These variables were selected as controls since it is likely that the organization’s age and resources (financial and human) would influence the strategic orientation of the enterprise. For example, it would be expected that organizations with greater access to resources would have a reduced need to engage in bricolage behaviours, and may also be more

willing to take risks, be proactive and innovative. On the other hand, older, more established organizations may be more entrenched in their behaviours and less likely to engage in innovation. In addition, a dummy variable was generated based on data collected pertaining to the legal status of the organization that indicated whether each organization was registered as a NFP (1) or for-profit entity (0). Given that for-profit entities are often perceived as more entrepreneurial in nature, it was important to control for legal status.

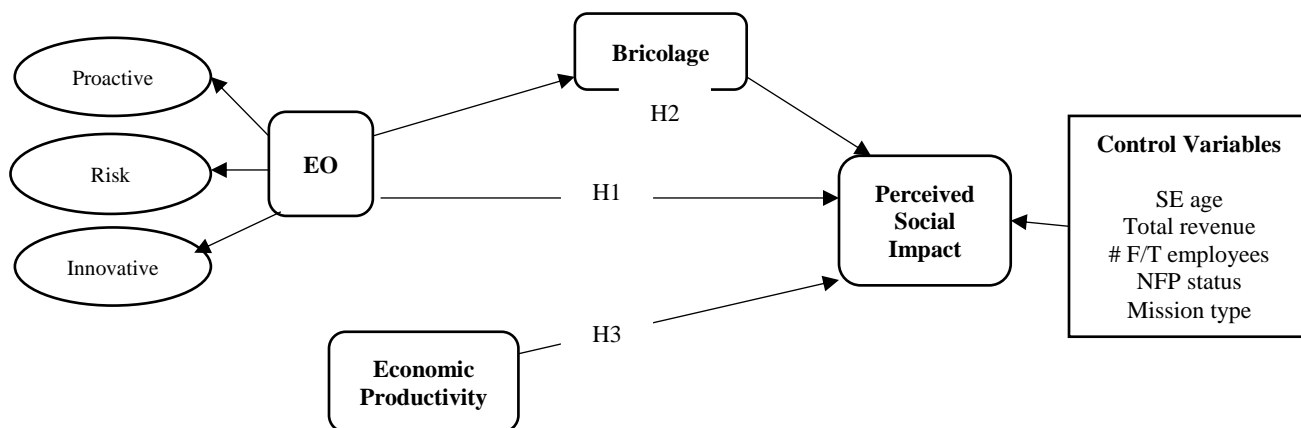
Based on the definition in the Nova Scotia Social Enterprise Sector Survey (2017), organizations were considered to be social enterprises if they produce goods and services for a market and reinvest profits to fulfill social, environmental, and community or cultural goals. As noted, social enterprises are hybrid organizations that also have financial/economic goals to support their sustainability. Survey participants were asked, “In your own words, what is the primary mission, vision or purpose of your organization?” Responses were then coded according to social, environmental, community/cultural and economic and dummy variables were calculated for each. These were also included as controls in the model to ensure that the focus of the work of the organization did not affect the relationship between the other variables.

6 Model Summary

This chapter sets up the analytical model and forms the basis for the inquiry in this thesis. It builds from the theoretical framework to clarify and define the model variables, how they affect social impact, and related hypotheses. Figures 2 and 3 below provide a visual summary of these hypotheses and how the variables relate to each other – in terms of EO as a uni-dimensional construct, and as a 3-dimensional construct. Table 4 then outlines each hypothesis in order of its presentation in this chapter. Further details pertaining to the measures are discussed in Chapter 4, including their origin and the items used to assess their presence in the survey. The

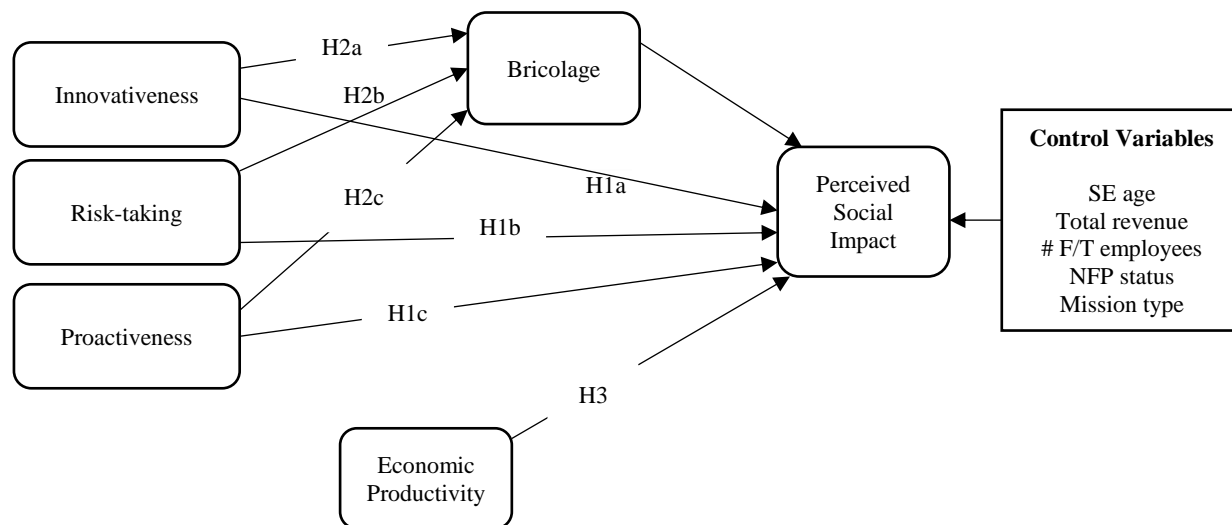
method for data collection is also outlined in Chapter 4, followed by a presentation of findings in relation to each hypothesis in Chapter 5.

Figure 2: Analytical model with EO as a uni-dimensional construct



Source: Author's own.

Figure 3: Analytical model with EO as a 3-dimensional construct



Source: Author's own.

Table 4: Summary of Hypotheses

- H1:** Organizations that exhibit higher levels of entrepreneurial orientation are more likely to have greater perceived social impact.
- H1a:** Innovativeness behaviours in social enterprises are positively associated with social impact performance.
- H1b:** Risk-taking behaviours in social enterprises are positively associated with perceived social impact.
- H1c:** Proactiveness behaviours in social enterprises are positively associated with perceived social impact.
- H2:** The relationship between entrepreneurial orientation and social impact is mediated by bricolage behaviours.
- H2a:** The relationship between innovativeness and social impact is mediated by bricolage behaviours.
- H2b:** The relationship between risk-taking and social impact is mediated by bricolage behaviours.
- H2c:** The relationship between proactiveness and social impact is mediated by bricolage behaviours.
- H3:** Greater economic productivity in social enterprises is positively associated with higher levels of perceived social impact.

CHAPTER 3: SETTING THE CONTEXT

This chapter provides an overview of the demographic and economic characteristics of Nova Scotia, Canada, where the study takes place. It also outlines key features of the local social enterprise sector, based on a series of survey reports and policy documents produced since 2010. This profile of the external environment is important for understanding contextual factors that influence the interpretation of the findings from the analysis.

1 The Province of Nova Scotia

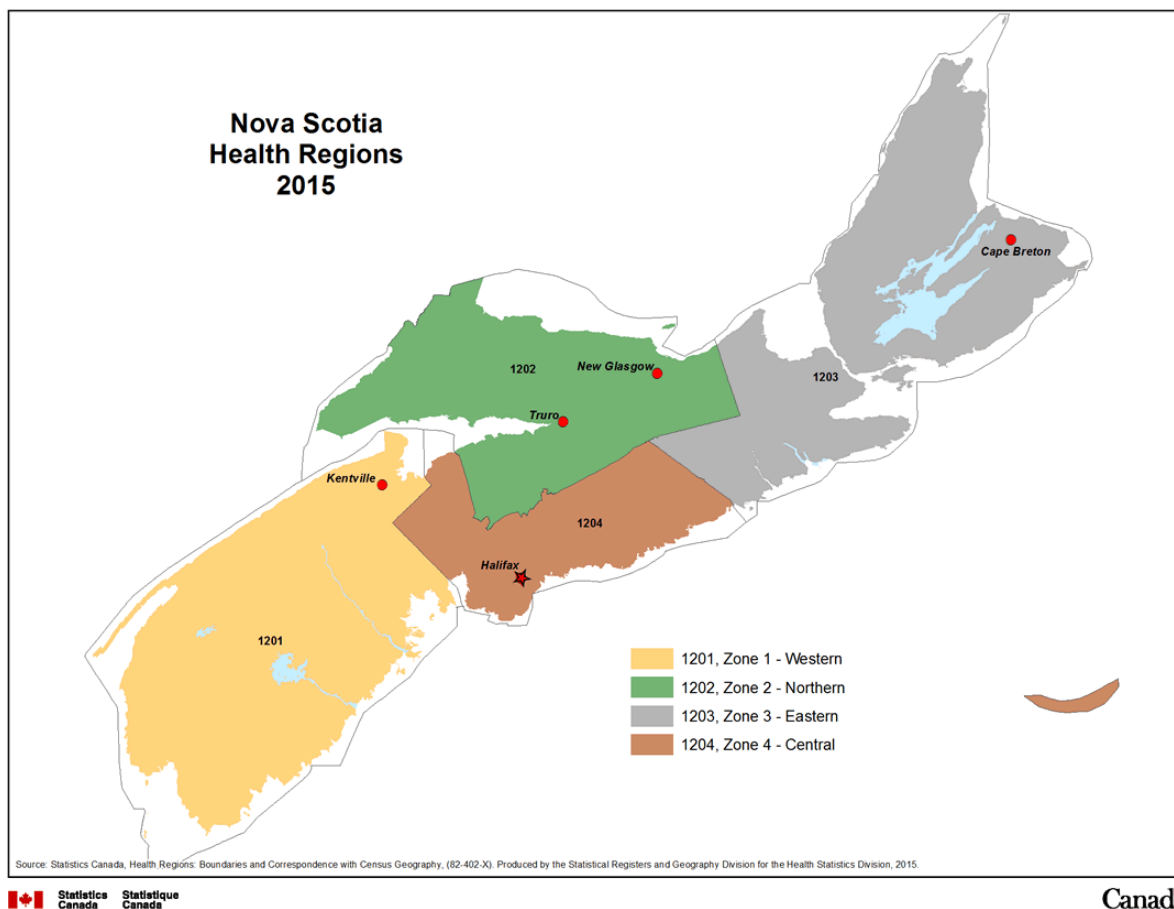
This section presents broad demographic and economic profiles for Nova Scotia, as well as several highlights from its history that helped to instill cultural values associated with the social economy, and to lay the foundation for the development of the local social enterprise sector.

1.1 Demographic Profile

The population studied in this thesis is located in Nova Scotia, an eastern Canadian province with a total population of approximately 923,500 (Statistics Canada, 2016b), of which 44% (403,131) (Statistics Canada, 2016a) live in the capital city (Halifax Regional Municipality). Nova Scotia is one of three Maritime Provinces (with New Brunswick and Prince Edward Island), and part of the region of Atlantic Canada (includes the Maritimes plus Newfoundland). It is a peninsula in the Atlantic Ocean, with an industrial history rooted in the fisheries, agriculture, coal mining, and pulp and paper. There are 18 counties across the province, grouped into seven regions (Nova Scotia, 2019). Cape Breton Island forms the northeastern region of Nova Scotia, connected to the mainland by the Canso causeway (see Figure 6 below). The Island has a unique music and storytelling culture shaped by its industrial background and diverse European influences, but has been experiencing a downward population trend over

several decades (Jala, 2017). In addition, over 70 percent of the population now lives in the Island’s main urban area, the Cape Breton Regional Municipality.

Figure 4: Map of Nova Scotia, by Health Zones²



Source: Statistics Canada, Nova Scotia Health Regions – 2015 (Statistics Canada, 2015)

Rural communities across the province are facing similar demographic issues spurred by an aging population. This trend is coupled by the unemployment, underemployment and outmigration of youth, and has been referred to as the “youth crisis” in Nova Scotia (MacKinnon, 2016). A recent report frames the current economic context in the province as a

² Nova Scotia Health Authority is made up of four geographic zones (Central, Eastern, Northern and Western), each of which has a distinct management structure that reports to the executive team. This structure enables provincial planning and local implementation.

crisis of unprecedented proportions, marked by the prediction that by 2036 there will be 100,000 (20%) fewer working age people in the province (One Nova Scotia, 2014). Tables 5 and 6 below summarize general characteristics of the population, and the age distribution of the population. When compared to the national statistics, the percentage of Nova Scotia's population that is older than 65 years is substantially higher.

Table 5: General Characteristics of the Province of Nova Scotia (2016)

Total Population	923,598
Urban Population (Halifax Regional Municipality)	403,131
Gross Domestic Product (GDP)	\$41,726 million (CAD)
Land area (km ²)	52,942
Population density by km ²	17.4
Median total income (CAD) (2015)	\$31,813
Average employment income for F/T workers (CAD) (2015)	\$56,820
Unemployment rate	10%
% of total population >15 years with no certificate, diploma or degree; or, secondary (high) school diploma or equivalency certificate	45%

Source: Author's own, based on Statistics Canada data for Nova Scotia in 2016 (Statistics Canada, 2016b).

Table 6: Distribution of Population by Age Group for Nova Scotia and Canada (2016)

	Nova Scotia	Canada
0-14 years	14.5%	16.6%
15-64 years	65.6%	66.5%
Over 65 years	19.9%	16.9%
65-84 years	20%	14.7%
Average age of the population	43.5 years	41.0 years
Median age of the population	45.5 years	41.2 years

Source: Author's own, based on Statistics Canada data for Nova Scotia in 2016 (Statistics Canada, 2016b).

1.2 Economic Profile

In February 2014, the Nova Scotia Commission on Building Our New Economy released its report *Now or Never: An Urgent Call to Action for Nova Scotians* (One Nova Scotia, 2014), based on a government mandate to invoke discussion and debate on the economic development challenges and opportunities facing the province, and to provide recommendations for the future. Thirty-five public meetings were held and a variety of outlets were offered to encourage citizen engagement. The resulting core message was: "Nova Scotia is today in the early stages of what

may be a prolonged period of accelerating population loss and economic decline. These negative prospects are not, however, inevitable or irreversible” (p. 3). Consistent with the information presented in Section 1.1, aging demographics, outmigration from rural communities, low levels of immigration, as well as a lack of entrepreneurship, were all cited as key challenges facing the province. This provincial trend is consistent with that across Atlantic Canada, social and economic challenges have persisted for over half a century (Lionais, 2015).

The gross domestic product (GDP) of Nova Scotia was \$41,726 million (CAD) in 2016 (Statistics Canada, 2017). In 2017, the average annual income of \$73,200 (CAD) - \$14,000 below the national average (Government of Nova Scotia, 2019b). The labour force population as of March 2019 was 466,500 and the unemployment rate was at 6.2 percent (Government of Nova Scotia, 2019a). In July 2019 the goods-producing sector (e.g., construction and manufacturing) employed 83,600 people (18%) and the services-producing sector accounted for the remaining 378,600 (82%) (Statistics Canada, 2019). The top three employers in the services sector are wholesale and retail trade; health care and social assistance; and, educational services. These numbers show a distinct move away from traditional industries in the province. For example, in 2011-12 three pulp and paper mills closed in the span of just over a year (Patten & Doucette, 2012), which had significant economic and social implications for rural communities.

The United States is Nova Scotia’s largest trading partner, accounting for 63 percent of all exports in 2019 (Government of Canada, 2019b). As of 2015, rubber (specifically, tires produced by Michelin) represented the province’s top export sector, followed by seafood (including a large proportion of lobster) (Boon, 2015). Other top exports include mineral fuels, mineral oils, bituminous substances and mineral waxes; paper; wood pulp; and, plastic. Blueberries, Christmas trees and apples are among the province’s most valuable agricultural

products. The vast majority (98%) of employer businesses in the province are small (1-99 employees). As of December 2017 there were 554 businesses that have between 100 and 499 employees, and 68 with 500 or more (Government of Canada, 2019a).

1.3 Nova Scotia's Social Economy

Nova Scotia has a history of enterprising social activity based on values of collaboration and collective interests. For example, amidst the economic challenges of the Great Depression during the 1930s, the Antigonish Movement emerged from rural communities in the province's eastern region, based on notions of community-led socioeconomic reform (Donatelli et al., 2018). Combining interests in adult education and cooperative economic models, the Rev. Dr. Moses Coady and Rev. Jimmy Tompkins pioneered the movement beginning in the 1920s as a response to the poverty facing farmers, fishers, miners and other disadvantaged groups in the area. The six principles of the movement were articulated at a lecture at Acadia University in 1944 and included its ultimate objective as “a full and abundant life for everyone in the community”, noting that “Economic cooperation is the first step, but only the first, towards a society that will permit every individual to develop to the utmost limit of her/his capacities”(StFX University, 2019). St. Francis Xavier University (StFX) was a key player in the development of the movement. The StFX Extension Department led a series of initiatives aimed at producing a “self-sustaining cooperative system in eastern Nova Scotia rooted in the community and supported by a citizenry enlightened by adult education” (Masters of Their Own Destiny, 2019). This work generated international interest, which continues to be promoted through the Coady International Institute at St. F.X. (established 1959).

The cooperative values inherent to the Antigonish Movement continue to be felt in Nova Scotia today, through the presence of credit unions and cooperatives that still operate – and that

can be considered some of the first social enterprises in the province. The Movement also led to the establishment of New Dawn Enterprises Limited in Cape Breton in 1976, which is the oldest Community Development Corporation in Canada and a Founding Member of the Canadian Community Economic Development (CED) Network (New Dawn, 2019). Today, New Dawn is one of the region's largest social enterprises, employing about 175 people and serving over 600 Cape Bretoners each day through its various companies and projects that meet community needs ranging from housing, health care, education, etc.

The Nova Scotia Commission on Building Our New Economy (One Nova Scotia, 2014) notes that:

The many significant achievements of community economic development and social enterprise groups across the province are indicative of what can be done when leaders in different sectors put their heads together to change attitudes and build a better future from the ground up. (p.41)

2 Social Enterprises in Nova Scotia

As noted, Nova Scotia's history of community building activity represents a longstanding presence of social enterprise. More recently, the values underlying the Antigonish Movement have experienced a resurgence. At the same time, awareness of the potential for social entrepreneurship to address social and economic challenges in the province is growing. Lionais (2015) notes that while there is not yet a strong conceptual attachment to social enterprise in the Atlantic Canadian region, there are a variety of related approaches present based on the historical legacy of cooperation. He further notes that "social enterprises are often viewed as mechanisms for reinvigorating local place-based economies" (p.28), and that since social enterprises often emerge "where the market and the state have failed to provide adequate responses to social,

economic and environmental challenges” (p.26), it is not surprising that the history and presence of such organizations is strong.

Between 2010 and 2017, a total of three sector surveys were conducted by local policy makers, researchers and SE consultants to better understand the social enterprise sector in Nova Scotia, and inform investment and policymaking. The following sections outline the findings from these surveys, as well as relevant policy documents.

2.1 2011 Sector Survey

In November 2009, the government of Nova Scotia began facilitating a Social Enterprise Working Group comprised of federal and provincial civil servants, as well as representatives from a variety of other stakeholders. This group led to the development of a discussion paper in early 2011 exploring the social enterprise concept, based on the definition of “businesses or organizations operated for the purpose of tackling social, economic or environmental challenges” (Tarr & Karaphillis, 2012, p.3). The production of this paper was followed by a research study on the nature and impact of Nova Scotia’s social enterprises, based on findings from the first sector survey conducted in 2011. The definition for a social enterprise used in the survey was “any organization that operates like a business, produces goods and services for the market, but manages operations and directs surpluses in the pursuit of social, environmental and community or cultural goals” (Tarr & Karaphillis, 2012, p.3).

A population of 1,098 organizations was identified based on this definition and 109 responses were collected – 70 percent of which were not-for-profit organizations. Table 7 captures several key characteristics of the sector based on the 2011 respondents. Findings indicate that social enterprises employ high numbers of female workers, rely heavily on volunteers, and are highly localized in terms of the markets they operate in. The top five barriers

to success identified by participants in 2011 include: accessing ongoing government funding, keeping/finding skilled staff, accessing financing, obtaining/keeping good board members, and need for business management expertise.

Table 7: Key characteristics of Nova Scotia’s social enterprise sector based on the 2011 survey

	n=109
Average organizational age	28 years
% planning to start or expand entrepreneurial activities to support their mission	62.4%
# of employees (inc. F/T, P/T and seasonal)	2,672
# of volunteers (inc. F/T and P/T)	3,617
% of female employees	80%
% selling goods and services to their local neighbourhood or community	77.6%
Total revenue (inc. sales, grants, loans and donations)	\$98.1 million (CAD)*

*Note: for revenue, n=88 and figures are based on 2010 financial data

Source: Author’s own, based on Donatelli et al., 2018.

2.2 2014 Sector Survey

A second Nova Scotia social enterprise sector report was produced based on a survey conducted in 2014 (Elson, Hall, Pronk, & Wamucii, 2015). This survey was based on one used to measure the economic and social/ environmental/ cultural activity of the social enterprise sector in two western Canadian provinces. The original survey was a product of the British Columbia – Alberta Community-University Research Alliance (CURA) and was conducted by Dr. Peter Elson, Mount Royal University, and Dr. Peter Hall, Simon Fraser University (Elson & Hall, 2012). As part of this work, they spent considerable effort determining a useful definition that was “clear, independently verifiable, classifiable, and traceable for research purposes” (p.220). Elson and Hall (2012) contend that the definitional struggle in the social enterprise domain “reflects different contextual understandings of what constitutes a social enterprise, as well as reflecting a broader ecological competition for status and resources” (p.217). The definition for a social enterprise that was developed, and subsequently used in the 2014 Nova Scotia sector

survey, is: “a business venture owned or operated by a non-profit organization that sells goods or provides services in the market for the purpose of creating a blended return on investment, both financial and social/ environmental/ cultural” (Elson & Hall, 2012, p.220). As acknowledged by the authors, this definition excludes institutional non-profits such as universities and hospitals, most cooperatives, voluntary associations and societies, and non-enterprise charities and profits. Based on the definition, it also omits for-profit organizations that may have a social/ environmental/ cultural mission for all or part of their activities.

The 2014 Nova Scotia survey report noted the multiplicity of the social enterprise sector as both a success and a challenge, in that “social economy organizations often span business sectors, serve multiple demographics and may have two or more social, cultural or environmental objectives” (Elson et al., 2015, p.5). A list of 1,158 potential social enterprises was generated based on those included in the 2010 survey, the Nova Scotia Co-op Council, the Community Economic Development (CED) Institute, Common Good Solutions (a local social enterprise consulting and training organization), and other directories. A total of 232 responses were collected, indicating a response rate of 20 percent. Table 8 below includes several descriptive statistics from the research findings.

Table 8: Key characteristics of Nova Scotia’s social enterprise sector based on the 2014 survey

	n=232
Average organizational age	26 years
% planning to start or expand entrepreneurial activities to support their mission	71%
# of employees (inc. F/T, P/T and seasonal)	5,630
# of volunteers (inc. F/T and P/T)	20,700
% selling goods and services to their local neighbourhood or community	71%
Total revenue (inc. sales, grants, loans and donations)	\$198 million (CAD)
Total expenses related to wages and salaries	\$83 million (CAD)

Source: Author’s own, based on Elson et al., 2015.

The 2014 survey included questions pertaining to organizations' plans for expansion (and related barriers faced) for the subsequent three-year period. In terms of challenges anticipated during that period, 60 percent of respondents expected to face issues related to their financial sustainability. Fifty-five percent indicated plans to expand, but only 43 percent felt they had access to capital and financing needed to grow. Many (70%) were looking to government for investment, as well as other non-sales sources of revenue such as fundraising, non-government grants, etc. This suggests that the social enterprise sector in Nova Scotia is reliant on a diversity of funding sources and that many organizations are not yet self-sustainable. It is worth noting that neither the 2011 nor the 2014 surveys include any questions aimed at assessing the social impact of the sector specifically. Instead, this impact is captured in terms of the number of employees, people served, and training provided to support the social mission.

2.3 Provincial Social Enterprise Framework

In April 2017 the Province of Nova Scotia released its Framework for Advancing Social Enterprise (NS Dept of Business, 2017). The Department of Business is mandated to facilitate social enterprise growth, and so collaborated with the Social Enterprise Network of Nova Scotia (SENNS) to explore how the needs of the sector could be responded to. The definition of social enterprise put forward in the Framework is: "A social enterprise is operated for the purpose of addressing social, cultural, environmental, or economic challenges. The majority of profits or surpluses are reinvested to support that purpose" (p.3). In addition, a vision for the sector is articulated: "Our vision is to have a healthy sector within an environment that facilitates the establishment and growth of social enterprises" (p.3).

The Framework is based on six pillars that first arose from the 2009 Canadian Conference on Social Enterprise. These include: increase enterprise capacity; enhance access to

financing; expand market opportunities; promote and demonstrate the value of the sector; create an enabling policy environment; and, build a strong social enterprise network. The pillar pertaining to building a strong network is seen as foundational to all areas, and so is interwoven with the other five. Medium- and long-term outcomes have been identified for each of these five areas. For example, capacity building entails the availability and access of training and coaching resources, as well as increased financial literacy. New market opportunities are expected to emerge by way of exposing the value of the sector and developing new procurement policies. Some action items on the part of the provincial government include collaboration with the industry to develop a web portal for sharing resources in the sector; supporting a biennial summit for the sector; establishing a working group to explore issues related to financing and investment; and, recognizing Buy Social Canada (www.buysocialcanada.com) as a third party certification for social suppliers and purchasers.

A previous policy decision highlighted in the Framework is the adoption of community interest company (CIC) regulations in June 2016. These regulations designate a new legal structure for organizations that combine characteristics of a for-profit business with a social purpose (e.g., social enterprises). The Act (Nova Scotia Legislature, 2016) denotes that CICs must have a community purpose, defined as “a purpose beneficial to society at large; or a segment of society that is broader than the group of persons who are related to the CIC”. CICs can issue shares, enabling investors to earn a return on community projects; however, these returns are capped by restricting the annual dividends that can be declared. Combined, these regulations and the provincial Framework for Advancing Social Enterprise indicate early evidence of a supportive institutional environment for social enterprise in Nova Scotia.

2.4 2017 Sector Survey

During the summer of 2017, a third social enterprise sector survey was administered in Nova Scotia, from which the data contained in this thesis was generated. The survey was conducted by Common Good Solutions Inc. on behalf of SENNS, and funded by the Province of Nova Scotia (Donatelli et al., 2018). The definition of social enterprise adopted by the Province in its Framework for Advancing Social Enterprise (see section 2.3) was used for this survey. The revised definition included social enterprises operating as for-profit entities, thereby broadening the scope of relevant organizations beyond not-for-profits. The previous 2014 survey had been limited to not-for-profit organizations (Elson et al., 2015). As a result, the catalogue for the survey increased from 1,158 organizations (2014) to 3,141. The sources used to build this catalogue are further elaborated in Chapter 4. A total of 233 complete responses were collected, as well as an additional 55 partial responses (combined, n=288). As was the case in previous years, fewer participants completed the section pertaining to financial data. For example, 177 participants (76% of complete responses) reported their total revenue. As will be seen throughout the analysis, not all respondents completed all of the questions since complete responses were considered those that had fewer than 25 percent missing questions.

Two-thirds of respondents self-identified as social enterprises according to the definition provided (10 percent were unsure and 23 percent did not). A number of the survey questions were aimed at understanding organizations' missions. Given the options of social, cultural, environmental or economic, the majority viewed their mission as social (see Table 9). The most commonly cited organizational objectives were to: improve a particular community; support arts and culture/ heritage; create employment opportunities; improve mental or physical wellbeing.

Table 9: Social enterprise mission, by type

n=227		
Mission type	Number	% Total
Social	94	41%
Cultural	76	33%
Environmental	26	11%
Economic	31	14%

Source: Author's own, based on survey data.

Table 10 highlights descriptive statistics pertaining to the individuals who responded to the survey, and the organizations they represent. The high proportion who have been in their current organization for at least five years, and with previous experience in the sector, indicates a commitment to working in the field over time. In terms of education, in relation to the rest of Canada, there is a higher percentage of college graduates in Nova Scotia, as well as a higher percentage of university graduates across all degree levels in Halifax (Nova Scotia Government, 2017). As shown in Table 11, 88 percent of respondents had higher than a high school education, indicating that those working in social enterprises are more educated than the population average. It is also notable that the workforce in social enterprises is aging, in line with provincial trends.

From an organizational standpoint, most of the organizations surveyed have existed for a considerable period of time (longer than ten years), and the majority are micro organizations with fewer than five employees. In terms of the legal status of organizations, 34 percent are non-profit societies, 28 percent are non-profit charities, and 10 percent are non-profit cooperatives. A total of 22 percent had some form of a for-profit legal status. Survey respondents indicated that they sell a wide range of products and services. Thirty-three percent indicated they sold offerings in the area of culture and leisure, 26 percent in education, 25 percent in retail, 24 percent in food products and catering, and 21 percent in work and meeting spaces.

Table 10: Individual and organizational profiles of respondents (2017)

Individual Respondents	
Part of the senior management team or founder of the organization	68%
Working in the current organization for at least 5 years	67%
With previous experience working in social enterprises	70%
With post-secondary education (beyond high school diploma)	88%
With some formal business training	36%
Older than 45 years	65%
Organizations	
Older than 10 years	80%
With less than five full-time employees	63%
With less than five part-time employees	76%
Total revenue from all sources (all organizations)	\$179 million (CAD)
Total expenses including wages and salaries (all organizations)	\$151 million (CAD)
Percentage of organizations with NFP legal status	72%

Source: Author's own, based on survey data.

In terms of understanding the social impact of the sector, the survey included several questions designed to get a better sense of how organizations are tracking progress and changing over time. Sixty-three percent indicated that they track their progress towards their goals in some way, and there was a significant correlation between those organizations and the number of people served, where the greater the client base, the higher the likelihood that progress was assessed. This suggests that smaller organizations are not adequately resourced to implement evaluation processes. “Given that funders and other stakeholders often want to see evidence of impact, lack of available resources for evaluation can have adverse effects on the organization’s ability to grow” (Donatelli et al., 2018, p.24). The most common measure (68%) cited as used for tracking progress was quantitative outputs such as numbers of clients, programs, volunteers, etc. Other examples included qualitative assessments based on methods such as community engagement and surveys.

In order to gain insight on the perceived role of the organization and the sector, a series of questions were included in the survey to gauge whether participants felt their current societal role, ideal role, and the ideal sector role were best described as either a social safety net, a creator

of wealth, or an agent of fundamental change. Table 11 summarizes the results from these questions. Results indicate that the majority of social enterprises view their role and the sector's role as an agent of fundamental change, more so than filling unmet social needs or increasing economic impact. Perhaps unsurprisingly, there is a gap between the ideal and current role – thus indicating that being an agent of fundamental change is still aspirational for some.

Table 11: Perceived Organizational and Sector Roles

	n=225		
	Current Organizational Role	Ideal Organizational Role	Ideal Sector Role
Agent of Fundamental Change	100	130	143
Creator of Wealth	84	68	57
Social Safety Net	38	23	25
Total	222	221	225

Source: Author's own, based on survey data.

3 Conclusion

As outlined in this chapter, Nova Scotia faces numerous resource constraints and its public sector is facing increasing pressures to do more with less as the population ages and young people leave rural areas. The ability to effectively service small communities with high quality education, health care, transportation, recreation services, etc. is a significant challenge that requires innovative approaches. The community sector is also struggling to meet its' constituents needs and NFP organizations often find themselves in a never-ending pursuit for grants and donations given that core funding is extremely difficult to attain. In light of these trends, more emphasis is being placed on the potential for social enterprises to address social challenges and create financially sustainable community organizations. Given this context, understanding the organizational behaviours and characteristics of social enterprises and how

they link to social impact is critical for informing the allocation of scarce resources and building capacity in the sector.

The following chapter provides greater detail about the study sample and the measures used to collect data pertaining to EO, entrepreneurial bricolage, economic productivity and perceived social impact, as well as the control variables. The methods for data collection and data cleaning are also outlined, in preparation for the analysis.

CHAPTER 4: METHOD

The theoretical framework and analytical model presented in Chapters 1 and 2 provide rationale and structure for examining how entrepreneurial orientation (EO), bricolage and economic productivity affect perceived social impact in social enterprises. A series of hypotheses was developed suggesting that bricolage acts as a mediator between EO and impact.

Furthermore, hypotheses were developed for each of the sub-dimensions of EO (innovativeness, risk-taking and proactiveness) to explore their relative importance in the model. Economic productivity was also expected to be a positive predictor of social impact.

This chapter outlines the method employed to explore the research problem of how organizational characteristics in social enterprises affect performance. As noted in Chapter 3, a cross sectional survey design was used to study social enterprises in Nova Scotia, Canada during the summer of 2017. In the following sections, details regarding the survey sample, measures, procedures for conducting the survey, and the steps undertaken in the analysis are presented.

1 Study Sample

As discussed in Chapter 3, prior surveys aimed at increasing understanding of the characteristics of the Nova Scotia social enterprise sector were conducted in 2011 and 2014. In 2017, the provincial government commissioned a third sector report to the Social Enterprise Network of Nova Scotia (SENNS). The survey for the study was then developed and administered by Common Good Solutions, a Community Interest Company (CIC) in Nova Scotia that helps social enterprises start and grow. In 2017, the provincial government adopted the definition of social enterprise as being “operated for the purpose of addressing social, cultural, environmental or economic challenges. The majority of profits and surpluses are reinvested to support that purpose” (NS Dept of Business, 2017, p.3). While the definitions used

in previous surveys were limited to not-for-profit (NFP) organizations, in order to align with the newly adopted definition this one did not exclude for-profit entities. It was used to identify the study sample and, as noted in Chapter 1, the population expanded from 1,158 potential participants in 2014 to 3,141 in 2017.

A team of seven postsecondary summer students was hired to identify social enterprises in the province and administer the survey. The list of potential participants used for the 2014 sector survey served as a starting point for the 2017 list. In addition, the students contacted the Canada Business Network and requested information for any business or organization in Nova Scotia with the following tags: A) Industry Tags – labour organization; religious organization; non-profit institution; art, entertainment and recreation sector; fitness centre; social assistance; golf course; and, catering service; B) Business Tags – membership organization; religious organization; individual and family service; professional organization; educational trust; religious trust; and, civic and social association (Donatelli et al., 2018, p.14). The Registry of Joint Stocks and online searches were also used to supplement what was provided by the Canada Business Network. The resulting list included a range of organizations previously excluded from the sector (e.g., for-profit entities, museums and religious organizations) but that contribute to the local social economy. A qualifying question was included at the beginning of the survey that asked participants: *Does your organization generate revenues from the sale of goods and/or services? (yes/no)*. Those who responded no were automatically redirected to the end of the survey with the message that they did not qualify as part of the target population. A total of 40 participants were excluded from the survey as a result of this qualifying question.

The response rate, including partial and complete responses, is presented in Table 12 below which was adapted from the sector report and supplemented with additional information

from the survey team. Partial responses include those surveys that were at least 25% complete. It is worth noting that while records were not kept regarding the number of organizations deleted from the initial list due to them no longer being in business, if they were excluded from the population size (N) the response rate would have been higher.

Table 12: Survey Responses

Potential social enterprises in Nova Scotia (N)	3,141
Number of organizations deemed not part of the sector	790
Revised population size (N)	2,351
Total respondents (n)	288
Response rate	12%
Partial responses	55
Partial responses as a % of total responses	19%
Complete responses	233
Complete responses as a % of total responses	81%

Source: Adapted from Donatelli et al. (2017), Table 1, p.15 with additional information from the survey team.

The first section of the survey pertained to the individual respondent's characteristics. Sixty-six percent of participants were part of the senior management team in their organization (n=267). Sixty-six percent were over the age of 45, while only 19% were under 35 (n=266). Eighty-nine percent had some form of formal education beyond high school, including 43% who held an undergraduate university degree (n=265). Sixty percent of those who respondents have been in the SE field for more than 15 years (n=179) and 42% have been at their current organization for at least 10 years (n=265). This data suggests that the population of individuals responding to the survey is relatively senior with a high degree of experience working in the context of SE.

In terms of the organizational characteristics, 71% had a not-for-profit legal structure (n=282) and 80% had total revenues from all sources including grants and donations of less than \$1 million (n=177). Sixty-three percent of social enterprises surveyed had less than five full-time employees (n=248) and, in 66% of the organizations more than half of total full-time staff

positions were held by women (n=244). These statistics point to the generally small size of the organizations and the not-for-profit nature of the sector, and the fact that many of those working in the field are female.

It is important to note that the number of complete responses (n=233) includes missing data for some questions due to the fact that “complete” was defined as surveys with more than 75% of questions answered. The variables used for the analytical model developed in this thesis are outlined in section 3, and include entrepreneurial orientation, bricolage, perceived social impact, economic productivity, age of the social enterprise, number of full-time employees, and total revenue (note that not-for-profit status and mission type are not retained as control variables, as outlined in Chapter 5 and so are not included in Table 13). Observations with missing data are not included in the analysis and when those observations are dropped the revised sample size is n=114. Table 13 below presents a comparison of descriptive data for the population of all complete responses, versus responses where there is no missing data for the model variables. For the most part, the model data without missing values is within a five percent range compared to the data from all complete responses. However, it is worth noting that in the data set used for the model analysis there is a higher proportion of respondents from the senior management team and those who have been in the SE field more than 15 years (difference of 9% for each). The proportion of organizations with a NFP status is also higher in the model sample (14% difference). The greater number of senior managers and higher level of experience in the sample is beneficial for the study results since these respondents are more likely to have an accurate understanding of their organizations as compared to junior staff. The higher proportion of NFP entities is notable for discussion purposes.

Table 13: Profile of survey data for all complete responses and responses when model variable data is not missing

	All complete responses		Responses without missing data for model variables	
	Percent of responses by question	Number of total responses by question	Percent of responses by question	Number of total responses by question
Respondent profile				
Part of senior mgmt team	66%	n=267	75%	n=114
Over age 45	66%	n=266	71%	n=113
Age 35 or younger	19%	n=266	14%	n=113
Formal education beyond high school	89%	n=265	88%	n=112
Possess undergrad degree	43%	n=265	40%	n=112
In the SE field > 15 yrs	60%	n=179	69%	n=83
At current org \geq 10 yrs	42%	n=265	48%	n=113
Organizational profile				
NFP legal structure	71%	n=282	78%	n=114
Total revenue < \$1 million	80%	n=177	77%	n=114
Less than 5 full-time employees	63%	n=248	59%	n=114
Female staff as >50% of total staff	66%	n=244	72%	n=110

Source: Author's own, based on survey data.

Numbers in bold represent greatest differences in responses between data sets.

2 Procedures

The following sections outline the steps taken to validate the survey questions with participants, contact potential participants, gain their cooperation for completing the survey, and administer the study. In other words, these procedures explain when, where and how the data for the analysis was collected.

2.1 Pre-testing

As noted in Section 1, a team of seven students was hired during the summer of 2017 by Common Good Solutions (CGS) to conduct the 2017 Social Enterprise Sector Survey on behalf of SENNS. The team was managed by Lauren Sears, an employee of CGS with academic guidance from Annika Voltan and Doug Lionais, Assistant Professor in the Shannon School of Business at Cape Breton University. In this role, Annika and Doug made suggestions regarding the wording and formatting of some of the research questions. They also ensured that research ethics processes were followed, and made the recommendation to conduct survey pre-testing.

They participated in conversations with the student team on an as-needed basis to help address questions pertaining to the Qualtrics software used and any other relevant clarifying questions.

The survey questions were developed based on prior sector surveys and the addition of new questions such as those for the measures analyzed in this thesis, and a series of three pre-tests were conducted. The purpose of the pre-tests was to assess the length of the survey and identify any potentially problematic wording. The participants that completed the survey pre-test included: David Upton, Co-founder of CGS; Jayme Melrose, Project Coordinator, Common Roots Urban Farm; and, Cathy Deagle Gammon, Executive Director of Dartmouth Adult Services Centre and Chair of SENNS. While several minor changes were made to language throughout the survey as a result of the pre-tests, the questions pertaining to this thesis measures remained consistent.

In addition to the pre-tests, questions were also vetted “through internationally renowned social enterprise experts Gerry Higgins, from Community Enterprise in Scotland and the Chair of the Social Enterprise World Forum, and Jonathan Coburn, from Social Value Lab UK, both based in Scotland. Social Value Lab UK conducted the last two Scottish Social Enterprise Censuses and is recognized as an international expert on social enterprise research” (Donatelli et al., 2018, p.16). Again, minor suggestions were made to wording and options in drop-down lists, but none related to the questions relevant for this thesis.

2.2 Data Collection

Applications to the Research Ethics Boards at Saint Mary’s University and Cape Breton University were submitted in the spring of 2017 and were approved without any major issues at both institutions. A consent form outlining the confidentiality of the data collected, the purpose of the study and its voluntary nature was included at the beginning of the survey and participants

had to provide their consent in order to proceed. Data were collected over a three and a half-month period from the end of June to mid-October, 2017. Survey responses were inputted into Qualtrics software and later exported to Excel for data cleaning.

In order to generate a higher participation rate, SENNS offered that for each survey completed, a \$5.00 (CAD) donation would be made to purchase washer toss sets for communities across Nova Scotia. These games were made by a local social enterprise called Ability Wood Products Cooperative.

The list of potential respondents was divided so that each student on the team had a group that he or she was responsible for contacting. The student team contacted each organization in the compiled catalogue by email to introduce the purpose of the study and supply a link to the online survey. This was followed by a follow-up email several weeks later, in the hopes of eliciting as many online responses as possible. For those that did not complete the survey after being contacted by email, the students contacted organizations by telephone. Once reached, organizations had the choice again of completing the survey online, or verbally answering the questions by phone while the student simultaneously inputted the data. In some cases, participants began filling out the survey but did not complete all questions so they were prompted by a follow-up call and/or email to encourage them to finish.

2.3 Data Cleaning

As noted, following the submission of all responses the survey data were exported from Qualtrics into Excel. There were a number of cases of duplication where two surveys were exported for the same organization – typically one was partially completed and one was fully completed. The first step of the data cleaning process was to delete any duplicate surveys, with prioritization of partial entries. The second step was to review the progress point (%) of surveys

that were not fully completed. In order to retain as much data as possible, a decision was made to keep any survey that was 25% completed or higher. Deleting those below that threshold led to a reduction of 27 surveys in the data set.

The third step in the data cleaning process was to ensure consistency in the format of answers, particularly for questions that were open-ended and numeric in nature. For example, for questions related to the number of employees in the organization, some respondents included numeric digits (e.g. “30”) while others wrote out the name of the number (e.g., “thirty”). In such cases, all numbers were converted to digits. Where a range was provided, the median number was selected.

A fourth step was to examine the answers provided by drop-down lists. In each of these questions, an option was provided to select “other” and respondents were asked to type an answer. Text submitted from the “other” categories was examined to determine whether it could fit into one of the provided categories, or whether an additional category was needed that hadn’t been previously identified. For example, for the respondent’s job title, there were a high number of “other” answers selected and no option had been offered for Founder/Co-founder or Board Member. As a result, two new categories were added to that question to help reduce the ambiguity of responses.

The fifth step in the cleaning process entailed examining questions to determine whether the number of categories could be reduced, and to convert continuous variables into categorical ones. For example, information pertaining to characteristics such as the organization’s age, number of employees, annual revenues and expenses, etc. was grouped into number ranges in order to reduce the number of potential responses for the analysis. For questions with a high number of response options, opportunities to combine categories were explored. Examples of

such questions include the highest level of education attained by the respondent and the legal structure of the organization. For the purposes of the thesis, some questions were converted to dichotomous variables so they could act as control variables in the analysis (e.g. legal structure was grouped into for-profit or not-for-profit for simplification purposes).

Finally, several new variables were computed. These included the percentages of total full-time employees that were female, racialized, and under the age of 35. They were calculated by taking the number of total full-time employees in the organization and dividing it by the number from each sub-category. In some cases organizations indicated they had a number of full-time staff in a sub-category but zero full-time staff overall; such responses were considered invalid. A variable to capture the profits of the organization was also computed by subtracting total expenses from total revenues. And, as noted in section 2.4, economic productivity was calculated as total revenue divided by the total number of paid employees.

Once the data cleaning process was complete, the data was exported from Excel into Stata software for the analysis. The steps conducted in the statistical analysis and the generated results are outlined in Chapter 5.

3 Measures

The following sections outline the measures used to test the analytical model developed in Chapter 3. A total of four variables are used to assess the question of how entrepreneurial behaviours in social enterprises affect performance. These include perceived social impact (dependent variable), EO, bricolage, and economic productivity. Perceived social impact, EO and bricolage are all measured by previously validated scales. Economic productivity is measured by a single items based on prior research (Battilana et al., 2015).

3.1 Dependent Variable: Perceived Social Impact

Perceived social impact is the dependent variable in this study and is assessed by evaluating social entrepreneurs' perceptions of how well the organization performs on its social goals. As noted in Chapters 2 and 3, social impact is difficult to measure due to its multi-faceted nature and varied contextual factors (Arena et al., 2015). It is also very challenging to assess social impact in an objective sense without oversimplifying the concept (Antadze & Westley, 2012). Few validated scales exist that measure social impact in a generic sense. "The ambiguous nature of goals held by non-profits mitigates universal criteria. Consequently, there is no easy answer to understanding performance; rather, each method provides one perspective on performance" (Brown, 2005, p.318). As a result of this reality, the scale developed by Brown (2005) was selected based on the fact that it includes a range of five previously validated items (versus relying on one measure) and offers a mix of questions aimed at both the quantitative aspect of social impact (e.g., increase in programs and services offered) and the qualitative aspect (e.g., effectiveness in meeting organizational goals).

The scale developed and tested by Brown (2005) measures *perceived* social impact – that is, how top managers understand and interpret their organization's success against social goals. The study assessed how board behaviours impacted organizational performance and consisted of responses from 304 board members and executives from 202 organizations in California and Arizona. The scale is adapted from previous work by Herman and Renz (1997), who apply the social constructivist theory to how performance is assessed in non-profit entities, highlighting the various perspectives held by different members of the organization. The initial scale developed by Herman and Renz (1997) consisted of nine items with specific attention to activities such as fundraising, financial management, program delivery, public relations, etc. Factor analysis

showed that the instrument contained one factor with a Chronbach's alpha of 0.85. Brown (2005) reduced the number of items to five and included less specificity regarding organizational activities.

Survey participants were asked to respond to a series of questions on a 7-point scale. Based on pre-tests with three social entrepreneurs, the scale items were modified slightly from their original form (Brown, 2005) to improve understanding and relevance to the current context. In addition, the scale was expanded from 5 points to 7 points to increase the specificity of responses and align with other scales in the survey. The original and modified items are included in Table 14 below.

Table 14: Scale Items for Perceived Organizational Performance

How successful, during the last year, was your organization to meet these goals?(Low to High on a 5-point scale) Brown (2005), p.336	The following questions are based on your own perception of how successful your organization is in terms of meeting its social, environmental, and/or cultural objectives. On a 7-point scale from very low to very high, please indicate the level of success that you believe your organization has had in regards to each of the following statements.
The majority of clients (customers) served experienced marked improvements as a result of services provided.	The majority of clients served experienced improvements to their quality of life as a result of the services we provided in the past year.
The number of programs and services offered has increased in the past year. The quality of services offered has improved.	The number of programs and services offered has increased in the past year. The quality of services offered has improved in the past year.
Generally clients and consumers are satisfied with the services provided.	Clients are generally satisfied with the services provided.
Overall how successful has the organization been in meeting its goals and objectives?	Overall, what level of success has the organization had in meeting its social, cultural and/or environmental goals or objectives?

Source: Adapted from Brown, 2005.

3.2 Independent Variable: Entrepreneurial Orientation

Entrepreneurial orientation (EO) was assessed by capturing social entrepreneurs' perceptions of the degree to which their respective organizations are innovative, proactive, and open to risks. The scale items used were based on those initially developed by Covin and Slevin (1986), then further refined and tested (1989), to measure an entrepreneurial strategic posture in commercial firms. Given that SE entails a process of being innovative in the use and combination of resources (Mair & Marti, 2006), EO is a construct that helps to advance understanding in the types of behaviours that social enterprises engage in to achieve social impact.

The scale items used by Covin and Slevin (1989) were developed particularly for commercial firms and technological/product innovations, and therefore the language is best suited for this context. For example, participants were asked whether top managers in their firms favour “a strong emphasis on the marketing of tried and true products and services” or place greater emphasis on “R&D, technological leadership, and innovations”. Similarly, in regards to dealing with competitors, the researchers posed the question of whether the business is typically “the first to introduce new products/services, administrative techniques, operating technologies, etc.” (Covin & Slevin, 1989, p.86). Over time, researchers have adapted the items for innovativeness, proactiveness and risk-taking for their own contexts. While some have developed adaptations of EO scale items for the non-profit and social enterprise contexts (Kraus et al., 2017; Morris et al., 2011), they have not yet been tested and validated in the sector.

Hughes and Morgan (2007) apply EO to young, high-tech firms in the embryonic stage of development. They independently test the effects of the five dimensions of EO (Lumpkin & Dess, 1996) on firm performance in this context and find that autonomy and competitiveness have no business performance value at this stage of development. The language used by Hughes and Morgan (2007) is more generic than that of Covin and Slevin (1989), and therefore lends itself to broader contexts. The measures and items used form the basis for assessing EO in this thesis. Table 15 below presents the original items developed by Hughes and Morgan and the final wording used in the survey instrument. The word “business” was replaced by “organization” to be more relevant to the social enterprise sector and all other wording remained consistent.

Table 15: Items Used to Measure Entrepreneurial Orientation

Hughes and Morgan (2007)	Item-total scale correlation	Thesis Survey	Item-total scale correlation
Innovativeness (INNOV)			
We actively introduce improvements and innovations in our business	0.87	We actively introduce improvements and innovations in our organization	0.79
Our business is creative in its methods of operation	0.86	Our organization is creative in its methods of operation	0.73
Our business seeks out new ways to do things	0.83	Our organization seeks out new ways to do things	0.74
Risk-taking (RISK)			
The term ‘risk taker’ is considered a positive attribute for people in our business	0.87	The term ‘risk taker’ is considered a positive attribute for people in our organization	0.70
People in our business are encouraged to take calculated risks with new ideas	0.83	People in our organization are encouraged to take calculated risks with new ideas	0.68
Our business emphasizes both exploration and experimentation for opportunities	0.76	Our organization emphasizes both exploration and experimentation for opportunities	0.72
Proactiveness (PROACTIVE)			
We always try to take the initiative in every situation (e.g., against competitors, in projects and when working with others)	0.82	We always try to take the initiative in every situation (e.g., against competitors, in projects and when working with others}	0.69
We excel at identifying opportunities	0.82	We excel at identifying opportunities	0.71
We initiate actions to which other organizations respond	0.82	We initiate actions to which other organizations respond	0.66

Source: Adapted from Hughes & Morgan, 2007.

3.3 Mediator Variable: Entrepreneurial Bricolage

Entrepreneurial bricolage was tested using the scale developed by Davidsson, Baker and Senyard (2017). They acknowledge that the emerging, behavioural theory of entrepreneurial bricolage is perhaps one of the most important developments in understanding resourcefulness in firms, yet “research on entrepreneurial bricolage has been hampered by the lack of robust instruments that allow large-scale theory testing” (Davidsson et al., 2017, p.114). The researchers further note that social entrepreneurship is a “particularly vibrant subtheme” (p.116) for the application of bricolage.

The measure developed by Davidsson et al. (2017) conceives bricolage as a holistic, unidimensional construct rather than consisting of separate dimensions. Each aspect (making do with resources at hand, recombining resources for new purposes, refusal to enact limitations, and bias for action) is needed for bricolage to occur. Initial items were developed for a study conducted by Senyard, Baker, Steffens and Davidsson (2014) examining the effect of bricolage on innovativeness in nascent and young firms (typically facing resource constraints). The sample for this study was obtained by random digit dialing phone interviews with 30,105 Australian households to determine whether respondents were involved as (part) owner-manager of a nascent or young firm. A total of 2,068 eligible respondents were identified, of which 1,186 participated in the first round of interviews in 2007. A second round of interviews was completed one year later and 966 of the original respondents participated. Items were developed based on the definition of bricolage developed by Baker and Nelson (2005) and eight items loaded as one factor with a Cronbach's alpha of 0.82.

Building from this work, Davidsson et al. (2017) conducted two pre-tests beginning with 20 Likert-scale items that were modified and reduced based on participant feedback. The resulting nine items were then piloted on an Australian random sample of 78 nascent entrepreneurs and young firm owners, resulting in a Cronbach's alpha of 0.84 for the summative index. While these items still posed some language and/or interpretation challenges, they were not altered further. However, the researchers did suggest possible revisions for consideration in future research, which were applied in this thesis. Table 16 below lists the original items and the modified ones used in the Nova Scotia Social Enterprise Sector survey.

Table 16: Scale Items for Entrepreneurial Bricolage

The following questions relate to the **resourcefulness of your organization**. On a 7-point scale from always to never, please indicate how often the following statements apply to your organization.

Original items	Revised items based on Davidsson et al. (2017) and included in the SE sector survey
We are confident of our ability to find workable solutions to new challenges by using our existing resources.	We usually find workable solutions to new challenges by using our existing resources.
We gladly take on a broader range of challenges than others with our resources would be able to.	We typically take on a broader range of challenges than others with our resources would do.
We use any existing resource that seems useful to responding to a new problem or opportunity.	No changes
We deal with new challenges by applying a combination of our existing resources and other resources inexpensively available to us.	No changes
When dealing with new problems or opportunities we take action by assuming that we will find a workable solution.	When dealing with new problems or opportunities we immediately take action by assuming that we will find a workable solution.

Source: Adapted from Davidsson et al., 2017.

As hypothesized in Chapter 2, bricolage is expected to mediate the relationship between EO and perceived social impact due to the fact that it helps to alleviate the resource constraints faced by social enterprises.

3.4 Independent Variable: Economic Productivity

Due to the fact that social enterprises employ market-based mechanisms to pursue their social goals, they are inherently hybrid entities with competing institutional logics (Besharov & Smith, 2014; Voltan & De Fuentes, 2016). Battilana et al. (2015) examine factors that influence the social performance of work integration social enterprises (WISEs) in France, and argue that economic productivity is an important driver of social performance (measured here as perceived social impact). Building on prior research by Caves, Christensen and Diewert (1982), economic productivity is defined as an organization's "overall efficiency in turning inputs into economic

outputs” (Battilana et al., 2015, p.1661). Organizations with high levels of economic productivity have greater margins, profitability, and capacity to innovate. The resulting availability of slack resources enables the enterprise to focus less on survival and more on achieving its social mission. In addition, social enterprises with this capacity may be more likely to be perceived as legitimate by external stakeholders and therefore able to attract new resources (Battilana et al., 2015).

Consistent with previous studies (Huselid, 1995; Rangan & Sengul, 2009), economic productivity is measured by Battilana et al. (2015) as “the ratio of total annual sales to the number of employees, including both permanent staff and beneficiaries” (p. 1665). Total annual sales was captured in the following question from the 2017 Social Enterprise Sector Survey:

What was your organization’s total revenue from all sources (sales of goods and services including service contracts with government, grants, loans, and donations) in 2016?

Respondents entered the numeric value associated with their total revenue in the last fiscal year and responses were then grouped into six categories. These categories, including their frequencies and percentages, are presented in Table 17 below:

Table 17: Total Revenue from All Sources

	Total Revenue	Frequency	Percentage	Cumulative Percentage
1	Up to, but not including, \$5,000	4	2.25	2.25
2	Up to, but not including, \$25,000	18	10.11	12.36
3	Up to, but not including, \$100,000	35	19.66	32.02
4	Up to, but not including, \$500,000	61	34.27	66.29
5	Up to, but not including, \$1,000,000	24	13.48	79.78
6	Up to, but not including, \$10,000,000	36	20.22	100.00
	Total	178	100.00	

Source: Author’s own, based on survey data.

The total number of employees was calculated as the sum of responses from four separate questions on the survey:

How many full time paid employees (30 or more hours/week) were employed by your organization during 2016? Estimated totals are acceptable.

How many part time paid employees (less than 30 hours/week) were employed by your organization during 2016? Estimated totals are acceptable.

How many seasonal employees (30+ hours/week for more than 2 weeks, but less than 8 months) were employed by your organization during 2016? Estimated totals are acceptable.

How many freelancers and contract workers (hired for specific project or term) were employed by your organization during 2016? Estimated totals are acceptable.

As in the case with total revenue, participants answered with the numeric value associated with the number of employees in each category. Responses were then grouped into seven categories, as presented in Table 18.

Table 18: Total Number of Paid Employees by Employee Type

	Number of Employees	Full time	Part time	Seasonal	Contract
1	Zero	52	85	84	100
2	1, up to, but not including, 5	105	93	90	75
3	5, up to, but not including, 10	31	26	24	17
4	10, up to, but not including, 25	34	17	21	9
5	25, up to, but not including, 50	18	3	3	9
6	50, up to, but not including, 100	4	6	4	1
7	>100	4	3	1	0
	Total (n)	248	233	227	211

Source: Author's own, based on survey data.

Finally, economic productivity was calculated for each social enterprise by dividing the organization's total revenue by its total number of paid employees across all four types (economic productivity = total revenue/total number of paid employees). As outlined in the

model developed in Chapter 3, it is anticipated that higher levels of economic productivity will be positively associated with perceived social impact.

3.5 Control Variables

As noted in Chapter 2, the control variables identified for potential inclusion in the model include the age of the social enterprise, total revenue, the number of full time paid employees, NFP status, and the type of mission (social, cultural, environmental or economic). The survey questions pertaining to each of these are outlined in Chapter 2, section 4. The descriptive statistics for these variables and their correlations with the other model variables are included in Chapter 5.

CHAPTER 5: ANALYSIS AND RESULTS

This chapter outlines the data analysis undertaken to test the model and hypotheses developed in Chapter 2. The analysis aims to address the primary research question of how entrepreneurial orientation (EO) and bricolage affect the perceived social impact of social enterprises. The total EO as a uni-dimensional construct comprised of three sub-dimensions (Covin & Slevin, 1989) is examined, as well as a model where each sub-dimension (innovativeness, risk-taking and proactiveness) represents an independent variable. The question of how economic productivity affects perceived social impact in social enterprises is also explored. The steps outlined in the following sections include a reliability analysis and factor analysis for each of the scales used in the model; the descriptive statistics, correlations, and regression analyses between the model variables; and, mediation analysis. Stata software was used to conduct the statistical analysis.

1 Scale Reliability Analyses

As discussed in Chapter 4, there are three latent constructs in the model. Theoretically, EO is comprised of three sub-dimensions and a total of nine items. Bricolage is uni-dimensional and is represented by a scale comprised of nine items, and perceived social impact is also uni-dimensional and includes five items. Items were represented in the survey by a series of sub-questions on a 7-point Likert scale with a range of options: EO (9 items: “strongly agree to strongly disagree”), bricolage (9 items: “always to never”) and perceived social impact (5 items: “very low to very high”). Reliability analysis was used to evaluate the stability and consistency of the measured items for each of the latent variables, and was conducted in two stages. The first step was to conduct a reliability analysis for the total scale using Chronbach’s alpha, and the

second consisted of examining item-to-total correlations to determine whether any items should be dropped. Based on these findings, new scale variables were generated for the data analysis.

1.1 Entrepreneurial Orientation Scale

Prior to beginning the reliability analysis for EO, descriptive statistics were generated for each of the nine items (including three each for innovativeness, risk-taking and proactiveness) to ensure there were no outliers. The minimum and maximum values for each all fell in the range of one to seven, making it possible to proceed. The next step was to run the “alpha” syntax in Stata, which computes the interitem correlations for all pairs of variables in the list and the Chronbach’s alpha (α) for the scale. This command was generated for all nine items comprising total EO, as well as each group of three items for the EO dimensions of innovativeness, risk-taking and proactiveness (see Table 19 below). Chronbach’s α is measured from zero to one. It gauges how closely related the set of items are as a group, and represents the reliability of the scale. The α value of 0.8715 for the total EO scale is well above the generally agreed upon threshold of 0.70 (Cortina, 1993, p.101), as are the α values for each of the sub-scales representing the dimensions of EO.

Table 19: Interitem covariance and reliability for the EO scale and sub-scales

	Total EO	Innovativeness	Risk-Taking	Proactiveness
Average interitem covariance	0.6454	0.7387	1.0704	0.7821
Number of items in the scale	9	3	3	3
Scale reliability coefficient (α)	0.8715	0.8312	0.8101	0.7672

Source: Author’s own, based on survey data.

In order to determine whether any items should be dropped from the scale, the item-to-total correlations were examined to ensure particular items did not have a negative effect on the α value. The guideline of eliminating those with item-to-total correlations below 0.30 was used (Ko & Stewart, 2002); however, as presented in Table 20 there were no items in the scale that

met that criteria, and so all were retained. In addition, the highest α exists when all items are retained. Note that item descriptions were shortened and paraphrased for the purposes of the table.

Table 20: Reliability of EO scale by item

Variable Name & Description	Obs.	Mean (SD)	Sign	Item-total correlation	Average interitem correlation	Alpha if items deleted
Innovativeness						
Innov1: Improvements and innovations are introduced	187	5.9(1.1)	+	.7311	.4241	.8549
Innov2: Creative in methods of operation	187	5.8(1.1)	+	.6685	.4355	.8606
Innov3: Seeks out new ways to do things	186	5.9(1.1)	+	.6680	.4342	.8600
Risk-taking						
Risk1: "Risk-taker" is a positive attribute	187	5.0(1.5)	+	.5810	.4518	.8683
Risk2: People are encouraged to take risks	187	5.4(1.3)	+	.5587	.4569	.8706
Risk3: Exploration and experimentation are encouraged	187	5.6(1.3)	+	.6235	.4453	.8653
Proactiveness						
Proactive1: Take initiative in every situation	186	5.3(1.3)	+	.5878	.4513	.8681
Proactive2: Excel at identifying opportunities	185	5.2(1.1)	+	.6300	.4432	.8643
Proactive3: Initiate actions to which other organizations respond	185	5.1(1.2)	+	.5573	.4561	.8703
Test scale					.4443	.8780

Source: Author's own, based on survey data.

The final step in the scale development process was to generate new scale variables. In this case, a variable was generated that included all nine items (eo_t) as well as three separate variables for each of the sub-scales comprised of three items each (innovativeness (eo_i), risk-taking (eo_r), proactiveness (eo_p)). The mean or summative scores were calculated manually as the average of the items included. For example, $eo_r = (risk1 + risk2 + risk3)/3$ (Acock, 2013). The descriptive statistics for the summative scores are presented in Table 21 below.

Table 21: Descriptive statistics for EO summative score variables

Variable	Observations	Mean	SD	Min	Max
eo_t	183	5.5	.85	2.33	7
eo_i	186	5.9	.94	2.33	7
eo_r	187	5.3	1.15	1	7
eo_p	184	5.2	1.01	2	7

Source: Author's own, based on survey data.

1.2 Bricolage Scale

The same steps were followed for the bricolage scale. The descriptive statistics of the nine items revealed that no outliers were present in the data so it was safe to proceed to the reliability analysis. Chronbach's α was then computed for the entire scale. As illustrated in Table 22, this value of 0.7893 was also above the generally accepted threshold of 0.70 (Cortina, 1993).

Table 22: Interitem covariance and reliability for the bricolage scale

	Bricolage
Average interitem covariance	.2843
Number of items in the scale	9
Scale reliability coefficient (α)	.7893

Source: Author's own, based on survey data.

Item-to-total correlations were next analysed to determine whether any items should be dropped from the scale. Again, there were no items that had item-to-total correlations lower than 0.30 (Ko & Stewart, 2002) and the Chronbach's α value was highest with the retention of all items so none were dropped. Table 23 presents these findings. Note that item descriptions were shortened and paraphrased for the purposes of the table.

Table 23: Reliability of bricolage scale by item

Variable Name & Description	Obs	Mean (SD)	Sign	Item-total correlation	Average interitem correlation	Alpha if items deleted
B1: Find workable solutions with existing resources	186	6.0(.69)	+	.4532	.3094	.7748
B2: Take on broader range of challenges than others with same resources	184	5.7(1.1)	+	.3955	.2928	.7821
B3: Use existing resources to respond to new problems	185	6.0(.78)	+	.5452	.2887	.7623
B4: Deal with new challenges by recombining resources	184	6.1(.87)	+	.5756	.2810	.7593
B5: Deal with new challenges by assuming a workable solution can be found	186	5.8(1.2)	+	.3885	.2853	.7847
B6: Combining resources allows for taking on a variety of challenges	186	5.6(1.1)	+	.5603	.2654	.7567
B7: Put together workable solutions to new problems from existing resources	185	6.0(.79)	+	.5430	.2897	.7630
B8: Combine resources for new purposes	186	5.5(1.2)	+	.5380	.2600	.7602
B9: Acquire resources at low/no cost and combine them with what we have	185	5.8(1.1)	+	.4279	.2864	.7766
Test scale					.2843	.7893

Source: Author's own, based on survey data.

The new summative score variable for the bricolage scale was calculated as the average of all nine items and the descriptive statistics for the scale variable (b_t) are shown in Table 24.

Table 24: Descriptive statistics for bricolage summative score variable

Variable	Observations	Mean	SD	Min	Max
b_t	179	5.81	.56	3	7

Source: Author's own, based on survey data.

1.3 Perceived Social Impact Scale

The third scale in the model consists of five items (from “very low” to “very high”) to measure the perceived social impact of the enterprise. A summary of the descriptive statistics revealed no outliers in the data for the five items. The first output from Stata showed that the software was automatically reverse-coding item 4 of the scale so the syntax “asis” was added to

keep the intended positive sign for all five items (Acock, 2013). Chronbach's α for the impact scale was lower than the other two scales at 0.5287, as shown in Table 25.

Table 25: Interitem covariance and reliability for the perceived social impact scale (5 items)

	Perceived Social Impact
Average interitem covariance	.3044
Number of items in the scale	5
Scale reliability coefficient (α)	.5287

Source: Author's own, based on survey data.

As with the previous scales, item-to-total correlations were analysed to determine whether any items should be removed from the scale. Again, the "asis" syntax was applied to avoid automatic reverse coding for item 4.

Table 26: Reliability of the perceived social impact scale by item

Variable Name & Description	Obs	Mean (SD)	Sign	Item-total correlation	Average interitem correlation	Alpha if items deleted
SI1: Majority of clients experienced improvements resulting from services	188	5.3(1.3)	+	.3195	.2873	.4576
SI2: Number of programs and services offered increased	189	4.9(1.5)	+	.4163	.2006	.3820
SI3: Quality of services offered improved	189	5.3(1.1)	+	.5435	.2087	.3446
SI4: Clients are generally satisfied with services	190	4.5(1.4)	-	-.0075	.5170	.6662
SI5: Overall level of success in meeting organizational objectives	189	5.6(1.0)	+	.3455	.3090	.4517
Test scale					.3044	.5287

Source: Author's own, based on survey data.

As illustrated in Table 26, item 4 ("Clients are generally satisfied with the services provided") has an item-to-total correlation well below the recommended threshold of 0.30 (Ko & Stewart, 2002) at 0.2006. Additionally, by removing it from the scale Chronbach's α increases from 0.5287 to 0.6662. While 0.6662 is slightly under the recommended limit of .70 (Cortina, 1993), it does fall well within the range of 0.5 to 0.75 for a moderately reliable scale (Hinton, Brownlow, McMurray, & Cozens, 2004, p.363). Based on these results, the decision was made

to drop item 4 from the scale. Table 27 reflects the interitem covariance and reliability for the revised scale.

Table 27: Interitem covariance and reliability for the perceived social impact scale (4 items)

	Perceived Social Impact
Average interitem covariance	.5170
Number of items in the scale	4
Scale reliability coefficient (α)	.6662

Source: Author's own, based on survey data.

The new scale variable for perceived social impact was calculated as the average of all four items and the descriptive statistics for the summative score scale variable (si_t) are shown in Table 28.

Table 28: Descriptive statistics for perceived social impact summative score variable

Variable	Observations	Mean	SD	Min	Max
si_t	186	5.28	.88	2.25	7

Source: Author's own, based on survey data.

1.4 Descriptive Statistics

Table 29 presents a summary of the descriptive statistics for the model variables and control variables, as well as the variable type. No outliers were detected for any variables. Note that the min-max range for perceived social impact was from -3.54 to 1.61 due to the fact that the factor score was being used rather than the summative score.

Table 29: Descriptive statistics for variables of interest

Variable	Model Variable	Variable Type	Observations	Mean	SD	Min	Max
Total EO (eo_t)	Independent	Continuous	183	5.5	.85	2.33	7
Innovativeness (eo_i)	Independent	Continuous	186	5.9	.94	2.33	7
Risk-taking (eo_r)	Independent	Continuous	187	5.3	1.15	1	7
Proactiveness (eo_p)	Independent	Continuous	184	5.2	1.01	2	7
Bricolage (b_t)	Mediator	Continuous	179	5.8	.59	3	7
Economic productivity (econ_prody)	Independent	Continuous	170	40128.22	43972.82	17.31	364718.5
Social impact (siF1)	Dependent	Continuous	186	-5.7e-10	.89	-3.54	1.61
Age of SE (se_age)	Control	Categorical	245	4.5	1.60	1	8
Total revenue (revenue)	Control	Categorical	177	5.1	1.37	2	8
Full-time employees (ft_emp)	Control	Categorical	248	2.6	1.4	1	7
NFP legal status (NFP)	Control	Dummy	282	.64	.48	0	1
Social mission (social)	Control	Dummy	269	.35	.48	0	1
Cultural mission (culture)	Control	Dummy	269	.28	.45	0	1
Environmental mission (enviro)	Control	Dummy	269	.10	.30	0	1
Economic mission (econ)	Control	Dummy	269	.12	.32	0	1

Source: Author's own, based on survey data.

2 Factor Analysis

To further investigate the structure and dimensions of the three latent constructs (EO, bricolage and perceived social impact), confirmatory factor analyses were conducted for each.

2.1 Entrepreneurial Orientation

The first step in the factor analysis for EO was to conduct a pairwise correlation test for each of the nine items in the scale (see Table 30). All nine items correlated at least 0.30 with at least one other item, suggesting reasonable factorability, and all pairwise correlations were significant at $p \leq 0.01$. In addition, the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.8823, above the commonly recommended level of 0.60 (Kaiser, 1974), meaning the variables had enough in common to warrant a factor analysis. Bartlett's Test of Sphericity resulted in $\chi^2 =$

753.215 (36), $p \leq 0.001$ thus indicating its suitability for factor analysis (Williams, Onsman, & Brown, 2010).

Table 30: Pairwise correlations for EO items

	Innov1	Innov2	Innov3	Risk1	Risk2	Risk3	Proactive1	Proactive2	Proactive3
Innov1	1.000								
Innov2	0.6254	1.000							
Innov3	0.5921	0.6485	1.000						
Risk1	0.3876	0.4031	0.4463	1.000					
Risk2	0.4628	0.3719	0.3799	0.5697	1.000				
Risk3	0.4935	0.4019	0.4142	0.5699	0.6438	1.000			
Proactive1	0.5286	0.4676	0.4505	0.3514	0.2635	0.3278	1.000		
Proactive2	0.5254	0.4607	0.4743	0.3403	0.2911	0.3680	0.5086	1.000	
Proactive3	0.5034	0.4192	0.4291	0.2742	0.2151	0.3032	0.4599	0.6173	1.000

Source: Author's own, based on survey data.

Based on prior research (Covin & Slevin, 1991), three dimensions were anticipated for EO. The first unrotated factor analysis was run without a specific number of forced factors. It included 183 observations and four factors were retained. The initial eigenvalues in the factor analysis indicated that these first four factors explained 92%, 16%, 6% and 0.5% respectively. General practice is to retain factors with eigenvalues ≥ 1.0 since they explain more variance than a single observed value (Costello & Osborne, 2005); in this case, only Factor 1 fit this criteria with an eigenvalue of 4.14. A second unrotated factor analysis was run, forcing one factor. In this case, the eigenvalue of the factor was 4.10.

To determine whether EO should be treated as a one dimensional or three dimensional construct, factor analysis forcing three factors was conducted. The unrotated and orthogonal varimax rotated factor loadings and unique variances for the three factors are presented in tables 31 and 32 below. In each table, values greater than 0.30 are presented. In the unrotated analysis, EO loads as one factor (eigenvalue = 4.25); however, in the rotated analysis innovativeness, proactiveness and risk taking all load as separate dimensions, as expected.

Table 31: Unrotated factor loadings and unique variances for 3 EO factors

n=183				
Variable	Factor 1	Factor 2	Factor 3	Uniqueness
Eigenvalue	4.246	.8696	.3888	
Innov1	.7781			.3768
Innov2	.7597			.2869
Innov3	.7796			.3364
Risk1	.6193	.3489		.4916
Risk2	.6250	.5434		.3133
Risk3	.6528	.4065		.3891
Proactive1	.6338			.5339
Proactive2	.6898		.3180	.3525
Proactive3	.6144		.3210	.4151

Source: Author's own, based on survey data.

Table 32: Rotated factor loadings and unique variances for 3 EO factors

n=183				
Variable	Factor 1	Factor 2	Factor 3	Uniqueness
Innov1	.5960	.3237	.4039	.3768
Innov2	.7773			.2869
Innov3	.6900		.3123	.3364
Risk1		.6349		.4916
Risk2		.7930		.3133
Risk3		.7144		.3891
Proactive1	.4605		.4809	.5339
Proactive2	.3141		.7093	.3525
Proactive3			.7007	.4151

Source: Author's own, based on survey data.

Next, it was important to determine the presence of discriminant validity between the sub-dimensions of EO (innovativeness, risk-taking and proactiveness) to ensure that they are distinct from each other, thereby enabling conclusions to be drawn about their effects on other constructs in the model (Farrell, 2010). The average variance extracted (AVE) for each dimension was examined next to the shared variance between each (i.e. the squared correlations between dimensions). Following the process established by Fornell and Larcker (1981) the AVE for each construct must be greater than its shared variance with any other construct in order for discriminant validity to be present. The AVE is calculated as the sum of factor loadings squared,

divided by the number of items in the construct ($\Sigma\lambda^2/n$). The findings from the calculations are presented in Table 33 below.

Table 33: Average variance extracted and shared variance estimates for EO dimensions

Variable	Items	1	2	3
1 Innovativeness	3	.4785	.3289	.4532 (a)
2 Risk-taking	3	.5735	.5141	.1833
3 Proactiveness	3	.6732	.4282	.4085

Source: Author's own, based on survey data.

Note: Correlations are below the diagonal, squared correlations are above the diagonal, and AVE estimates are presented on the diagonal.

Case (a) in Table 33 illustrates an issue related to the discriminant validity between innovativeness and proactiveness. A closer look at the factor loadings between the items for each dimension revealed that Proactiveness 1 (“We always try to take the initiative in every situation (e.g. against competitors, in projects and when working with others)”) loads on both Factor 1 (innovativeness) (.4605) and Factor 3 (proactiveness) (.4809) with little difference between the values. As a result of this overlap, the decision was made to drop Proactiveness 1 and re-examine the AVE estimates. From a theoretical perspective, it makes sense that taking initiative may be highly related to being innovative for some respondents. Others have also studied proactiveness as having fewer than three items (Salunke, Weerawardena, & McColl-Kennedy, 2013). Table 34 below shows these results. The issue between innovativeness and proactiveness was corrected. The EO scale was then re-tested for reliability as an 8-item construct, resulting in $\alpha = 0.8681$ (slightly lower than for the 9-item scale, $\alpha = 0.8715$) and average interitem correlation of 0.4513 (better than the 0.6454 value for the 9-item scale). Based on these findings, the subsequent analyses were conducted with EO as an 8-item construct and proactiveness as a 2-item construct.

Table 34: Average variance extracted and shared variance estimates for proactiveness as a 2-item construct

Variable	Items	1	2	3
1 Innovativeness	3	.4865	.3289	.3651
2 Risk-taking	3	.5735	.5095	.1502
3 Proactiveness	2	.6042	.3876	.5042

Source: Author's own, based on survey data.

Note: Correlations are below the diagonal, squared correlations are above the diagonal, and AVE estimates are presented on the diagonal.

Based on the factor analysis, it was determined that EO could be studied as one or three dimensions; therefore, it was possible to proceed with the proposed model to test total EO as the independent variable, as well as a model with risk-taking, innovativeness and proactiveness as separate independent variables. As a final step, factor scores were generated for the first factor to determine whether to use those or the manual variables in the analysis. The output for the factor scoring coefficients for total EO are presented in Table 35 below. The scoring coefficients for innovativeness range from 0.20 to 0.25 and are substantially greater than those for risk-taking (0.10 to 0.12) and proactiveness (0.10 to 0.13), meaning that innovativeness counts more in the generation of the factor score. This makes sense given that the factor loadings for innovativeness were also higher (see Table 31). To determine whether this difference affects whether to use the manual summative score variable (see section 1.1) or the factor score, the correlation between the two was assessed. The correlation analysis resulted in $r = 0.983$, $p \leq 0.001$, thus indicating that the use of either would be suitable, assuming that missing values on skipped items was not an issue (Acock, 2013). Both the manual variable and the factor score had the same number of observations ($n = 183$), thus negating the issue of skipped items, so the decision was made to use the manual scale variables for EO.

Table 35: Factor Scoring Coefficients for EO

Variable	Factor1
Innov1	0.2468
Innov2	0.2027
Innov3	0.2400
Risk1	0.1057
Risk2	0.1035
Risk3	0.1171
Proactive2	0.1344
Proactive3	0.1048

Source: Author's own, based on survey data.

The same process was followed for each of the dimensions of EO. The manual variable and the factor score for innovativeness were highly correlated ($r = 0.999$, $p \leq 0.001$) and had the same number of observations ($n = 186$). The same was true for risk-taking ($r = 0.996$, $p \leq 0.001$; $n = 187$) and proactiveness ($r = 0.9998$, $p \leq 0.001$; $n = 184$). The decision was therefore made to use the summative score variables for each dimension.

2.2 Bricolage

It was anticipated that bricolage would act as a unidimensional construct based on prior literature (Davidsson et al., 2017). Table 36 presents the pairwise correlations for all nine items in the bricolage scale. The numbers in the table all represent significant correlations of at least $p \leq 0.05$. Again, all nine items correlated at least 0.30 with at least one other item. The overall Kaiser-Meyer-Olkin measure of sampling adequacy was 0.756, above the commonly recommended level of 0.60 (Kaiser, 1974), meaning the bricolage variables had enough in common to warrant a factor analysis. Bartlett's Test of Sphericity resulted in $\chi^2 = 403.256$ (36), $p \leq 0.001$ thus indicating its suitability for factor analysis (Williams et al., 2010).

Table 36: Pairwise correlations for bricolage items

	Bric1	Bric2	Bric3	Bric4	Bric5	Bric6	Bric7	Bric8	Bric9
Bricolage1	1.000								
Bricolage2	0.3169	1.000							
Bricolage3	0.3266	0.3580	1.000						
Bricolage4	0.2822	0.1801	0.6210	1.000					
Bricolage5	0.3542	0.1079	0.2321	0.3317	1.000				
Bricolage6	0.2070	0.3482	0.2911	0.3960	0.3779	1.000			
Bricolage7	0.3546	0.3063	0.3692	0.4325	0.3108	0.3738	1.000		
Bricolage8	0.2032	0.2780	0.3056	0.3092	0.2050	0.4861	0.3436	1.000	
Bricolage9	0.2541	0.1689	0.2927	0.3167	0.1568	0.2229	0.2432	0.4986	1.000

Source: Author's own, based on survey data.

Following the process used for EO, a factor analysis without forcing any specific number of factors was conducted. In this case, five factors had positive Eigenvalues ranging from 2.778 to 0.166. Only Factor 1 had an Eigenvalue greater than one (2.778) and it accounted for 89.8% of the variance. A second factor analysis was run forcing one factor. Table 37 below presents the factor loadings and unique variances in this case. A third factor analysis forcing three factors was also run, however this resulted in a Heywood case³ so the results were not relevant. Bricolage was therefore treated as a one-dimensional construct.

³ Heywood cases are negative error variance estimates that can occur when the common factor model does not fit the empirical data. Other causes include sampling fluctuations and the indefiniteness of the model (Dillon, Kumar, & Mulani, 1987).

Table 37: Rotated factor loadings and unique variances for bricolage factor (n=179)

Variable	Factor 1	Uniqueness
Eigenvalue	2.741	
Bricolage1	.4602	.7882
Bricolage2	.4127	.8296
Bricolage3	.6896	.5244
Bricolage4	.7125	.4923
Bricolage5	.4728	.7765
Bricolage6	.5635	.6825
Bricolage7	.5957	.6451
Bricolage8	.5357	.7131
Bricolage9	.4392	.8071

Source: Author's own, based on survey data.

As seen in the factor loadings in Table 35 and the factor scores on the first factor illustrated in Table 38, Bricolage3 (“We use any **existing resource** that seems useful to respond to a **new problem or opportunity**”) and Bricolage4 (“We deal with new challenges by applying a **combination of our existing resources and other resources inexpensively available** to us”) have the greatest weighting. However, the correlation between the manual scale variable and the factor score was high ($r = 0.973$, $p \leq 0.001$) and the number of observations was consistent ($n = 179$), so again the decision was made to use the summative score in the mediation analysis.

Table 38: Factor Scoring Coefficients for Bricolage

Variable	Factor1
Bricolage1	0.1090
Bricolage2	0.0929
Bricolage3	0.2455
Bricolage4	0.2701
Bricolage5	0.1137
Bricolage6	0.1541
Bricolage7	0.1724
Bricolage8	0.1403
Bricolage9	0.1016

Source: Author's own, based on survey data.

2.3 Perceived Social Impact

The final factor analysis pertained to the variables making up the perceived social impact scale. As in the case of bricolage, it was anticipated that a single factor would be retained for perceived social impact based on prior research (Brown, 2005). Table 39 presents the pairwise

correlations for the four variables remaining in the scale following the reliability analysis. The correlations were all significant at $p \leq 0.01$. The overall Kaiser-Meyer-Olkin measure of sampling adequacy was 0.6430, just above the recommended threshold of 0.60 (Kaiser, 1974) and Bartlett's Test of Sphericity was significant ($\chi^2 = 134.473$ (6); $p \leq 0.001$). As a result, it made sense to proceed with a confirmatory factor analysis.

Table 39: Pairwise correlations for perceived social impact items

	Impact1	Impact2	Impact3	Impact5
Impact1	1.000			
Impact2	0.3272	1.000		
Impact3	0.3120	0.5883	1.000	
Impact5	0.2366	0.2074	0.3821	1.000

Source: Author's own, based on survey data.

Following the process used for the prior two scales, an unrestricted factor analysis was first conducted, followed by one that forced one factor. In the unrestricted case, Factor 1 was the only one that had an Eigenvalue greater than one (1.369) with a proportion of 1.25 of the variance. When one factor was forced, the Eigenvalue increased to 1.535. The factor loadings and unique variances are presented in Table 38 below. Perceived social impact was treated as a one-dimensional construct and the factor scores were generated (see Table 40). Impact3 ("The quality of services offered has improved in the past year") had the most salience with perceived social impact (scoring coefficient = 0.6483), followed by Impact2 ("The number of programs and services offered has increased in the past year") (scoring coefficient = 0.2443). In this case, both the factor score and the summative score had the same number of observations ($n = 186$) but the r -value was lower than with the other scales (0.919) (the relationship was significant at $p \leq 0.001$). This result combined with the much higher effect of Impact3 than other items led to the decision to use the factor score variable for perceived social impact so that relative weightings could be recognized in the analysis.

Table 40: Rotated factor loadings and unique variances for social impact factor (n=186)

Variable	Factor 1	Uniqueness
Eigenvalue	1.535	
Impact1	.3985	.8412
Impact2	.6751	.5442
Impact3	.8596	.2611
Impact5	.4264	.8182

Source: Author's own, based on survey data.

Table 41: Factor Scoring Coefficients for Perceived Social Impact

Variable	Factor1
Impact1	0.0933
Impact2	0.2443
Impact3	0.6483
Impact5	0.1026

Source: Author's own, based on survey data.

3 Correlations and Linear Regression Analysis

The next step following the scale reliability and factor analyses was to examine the correlations between the model variables and control variables, in preparation for the mediation and moderation analyses. As outlined in Chapters 2 and 4, the control variables include age of the social enterprise (number of years the organization has been selling goods and/or services) (se_age), total revenue (revenue), number of full-time employees (ft_emp), not-for-profit status (NFP) and mission type (social, culture, enviro, econ), to distinguish whether the size, longevity, and/or mission of the social enterprise affect the organizational behaviours of interest.

3.1 Correlation Analysis

Following the factor analysis, pairwise correlations were examined for the model variables – that is, EO (both as a unidimensional and three-dimensional construct), bricolage, economic productivity, and perceived social impact. The correlation matrix is presented in Table 42 below. Only those correlations of $p \leq 0.05$ and $p \leq 0.01$ (indicated by *) are included in the table.

Table 42: Correlation matrix for model variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Total EO (1)	1.00														
Innovativeness (2)	.8724*	1.00													
Risk-taking (3)	.8125*	.5735*	1.00												
Proactiveness (4)	.7644*	.6042*	.3876*	1.00											
Bricolage (5)	.4149*	.3295*	.2540*	.4538*	1.00										
Social Impact (6)	.2557*	.2399*		.3285*	.2615*	1.00									
Economic productivity (7)							1.00								
SE age (8)	-.2225*	-.1735	-.2587*		-.1709		.2047*	1.00							
Total revenue (9)	.2478*	.2319*	.2376*				.5013*	.3920*	1.00						
NFP status (10)								.2072*		1.00					
Full-time employees (11)							.2001	.3055*	.6657*		1.00				
Social mission (12)									.1765		.2051*	1.00			
Cultural mission (13)							-.2540*	.3715*	-.2312*	.1556	-.2559*	-.4599*	1.00		
Environmental mission (14)								-.2360*		-.1868*		-.2397*	-.2053*	1.00	
Economic mission (15)							.2495*		.1511		.1366	-.2645*	-.2265		1.00

Source: Author's own, based on survey data.

* indicates $p \leq 0.01$

As discussed in Chapter 2, section 4, the economic productivity variable was generated first by dividing total revenue by the total number of employees in the organization (full-time, part-time, seasonal and contract employees), in line with Battilana, Sengul, Pache and Model (2015). The correlation analysis (Table 42) revealed that economic productivity was not significantly correlated with any of the other model variables; however, it was positively and significantly correlated with the age of the social enterprise, total revenue, number of full-time employees, cultural and economic mission. To determine whether the inclusion of part-time, seasonal and contract employees was affecting the correlations with the model variables, economic productivity was recalculated to include only full-time employees, and again as full-time plus part-time employees; however, these changes did not affect the outcome. At this point, Hypothesis 3 (*Greater economic productivity in social enterprises is positively associated with higher levels of perceived social impact*) was rejected since the relationship between economic productivity and perceived social impact was not significant. Given its relationship with the other control variables and the theoretical importance of economic productivity (Battilana et al., 2015) in the efficient use of resources, it was retained in the model as a control variable.

In regards to the control variables, only the age of the social enterprise (se_age) and the total revenue of the organization (revenue) were significantly correlated with the model variables. The SE age was significantly correlated with total EO and risk-taking ($p \leq 0.01$), as well as innovativeness and bricolage ($p \leq 0.05$). Interestingly, there was a negative correlation with each of these variables, indicating that the relationships between the variables are stronger for younger organizations. A positive, significant correlation existed between revenue and total EO, risk-taking and innovativeness ($p \leq 0.01$), indicating that organizations with greater revenue tend to be more likely to adopt these behaviours. Neither SE age nor revenue were significantly

correlated with proactiveness or perceived social impact. None of the other control variables (NFP status, full-time employees, mission type) had significant correlations with the model variables. As a result, NFP and mission type were excluded as control variables from subsequent analyses. The decision was made to retain full-time employees as a control variable in the mediation analyses due to the fact that an organization's size, calculated as the firm's total labour force or number of full-time employees, is a key factor in its propensity to innovate (De Fuentes, Dutrénit, Gras, & Santiago, 2019). The firm's age and size are structural factors that have been found to be drivers of collaboration for innovation purposes (De Fuentes & Dutrénit, 2012).

3.2 Regression Analyses

The correlation results revealed that total EO and perceived social impact are significantly correlated ($p \leq 0.01$). Linear regression analysis was used to test if EO predicts perceived social impact in the absence of other variables. The results of the standardized linear regression indicated that for each unit increase of EO, perceived social impact increases by 0.24 ($R^2 = 0.06$, $F(1,175) = 10.79$, $p \leq 0.001$). This finding indicates that organizations with higher levels of EO are more likely to have higher levels of perceived social impact, and therefore Hypothesis 1 (*Organizations that exhibit higher levels of entrepreneurial orientation are more likely to have greater perceived social impact*) was accepted. Innovativeness and proactiveness were also significantly correlated with perceived social impact ($p \leq 0.01$). Linear regression analysis indicated that each unit change of innovativeness increases perceived social impact by 0.21 ($R^2 = 0.05$, $F(1,177) = 8.91$, $p \leq 0.01$), leading to acceptance of Hypothesis 1a (*Innovativeness behaviours in social enterprises are positively associated with perceived social impact*). Each unit change of proactiveness results in an increase of 0.22 in perceived social impact ($R^2 = 0.06$, $F(1,176) = 12.92$, $p \leq 0.001$), leading to acceptance of Hypothesis 1c

(Proactiveness behaviours in social enterprises are positively associated with perceived social impact). Bricolage is also a significant predictor of impact ($b = 0.41$, $R^2 = 0.06$, $F(1,172) = 11.87$, $p \leq 0.001$). Table 43 presents a summary of the individual linear regression tests for the model variables as predictors of social impact. Note that control variables were not included in this analysis.

Table 43: Summary of linear regressions between independent variables and social impact

Predictor	b	b 95% CI [LL, UL]	β	t	p	r	R ²
EO (total)	.22	[.07, .38]	.21	2.87	.005	.21**	.04
Innovativeness	.21	[.07, .35]	.22	2.99	.003	.22**	.05
Risk-taking	.06	[-.06, .19]	.08	1.04	.300	.08	.006
Proactiveness	.22	[.10, .34]	.26	3.59	.000	.26***	.07
Bricolage	.41	[.18, .65]	.25	3.44	.001	.25***	.06

Source: Author's own, based on survey data.

** $p \leq 0.01$; *** $p \leq 0.001$

LL and UL indicate the lower and upper levels of the confidence interval, respectively.

The correlation matrix revealed that the relationship between risk-taking and perceived social impact is not significant. As shown in Table 43, linear regression analysis confirmed the lack of predictive relationship between risk-taking and perceived social impact ($\beta = 0.08$, $R^2 = 0.006$, $F(1,178) = 1.08$, $p = \text{n.s.}$). This finding leads to the rejection of Hypothesis 1a (*Risk-taking behaviours in social enterprises are positively associated with social impact performance*). As a result of the lack of correlation or predictive relationship with perceived social impact, Hypothesis 2b (*The relationship between risk-taking and social impact is mediated by bricolage behaviours*) was also rejected.

A regression analysis was then tested that included all three sub-dimensions of EO and perceived social impact together in one model. Table 44 presents the results of this analysis. The findings are consistent in the proactiveness has a higher beta and smaller p -value than

innovativeness and risk-taking, and is therefore the greatest predictor of perceived social impact. In this case, neither innovativeness nor risk-taking have significant p -values; therefore, proactiveness is the only significant predictor of social impact when all three sub-dimensions of EO are present. The variance inflation factor was used to test for multicollinearity (see Table 45) and the values were all well below the commonly used acceptable threshold of 10, and more stringent threshold of 4 (O'Brien, 2007).

Table 44: Regression results using perceived social impact as the dependent variable

Predictor	b	b 95% CI [LL, UL]	β	t	p	sr ²	r	n = 177 Fit
(Intercept)	-1.39	[-2.3, -.52]		-3.16	.002			
Innovativeness	.16	[-.04, .36]	.17	1.60	.111	.014	.22**	
Risk-taking	-.09	[-.23, .06]	-.10	-1.17	.245	.007	.08	
Proactiveness	.17	[.02, .32]	.20	2.23	.027	.028	.26***	

R² = .08**

Source: Author's own, based on survey data.

** $p \leq 0.01$; *** $p \leq 0.001$

sr² = semi-partial correlation squared

LL and UL indicate the lower and upper levels of the confidence interval, respectively.

Table 45: Variance inflation factors for EO dimensions

Variable	VIF	1/VIF
Innovativeness	2.00	0.500
Risk-taking	1.59	0.629
Proactiveness	1.50	0.665
Mean VIF	1.70	

Source: Author's own, based on survey data.

A final regression analysis was conducted combining the three dimensions of EO with bricolage. As shown in Table 46, the addition of bricolage negates the significance of the relationship between proactiveness and social impact. This finding provides an early indication that bricolage plays a role in this affiliation, which is further investigated through mediation analyses in the subsequent sections. Again, multicollinearity was tested for using variance

inflation factors and values ranged between 1.33 and 2.01, all well within an acceptable threshold (O'brien, 2007).

Table 46: Regression results with bricolage using perceived social impact as the dependent variable

Predictor	b	b		β	t	p	sr ²	r	Fit
		95% CI [LL, UL]							
(Intercept)	-2.55	[-4.0, -1.07]			-3.39	.001			
Innovativeness	.13	[-.07, .33]		.13	1.27	.205	.009	.22**	
Risk-taking	-.07	[-.22, .08]		-.08	-0.91	.366	.004	.08	
Proactiveness	.13	[-.04, .29]		.15	1.49	.138	.012	.26***	
Bricolage	.25	[-.02, .53]		.16	1.83	.069	.018	.25***	
									R ² = .10**

Source: Author's own, based on survey data.

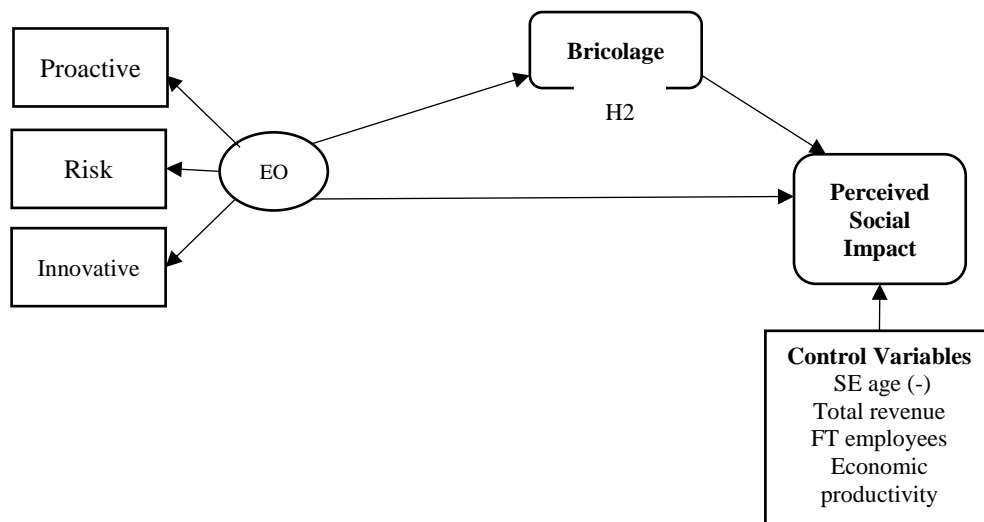
** $p \leq 0.01$; *** $p \leq 0.001$

sr² = semi-partial correlation squared

LL and UL indicate the lower and upper levels of the confidence interval, respectively.

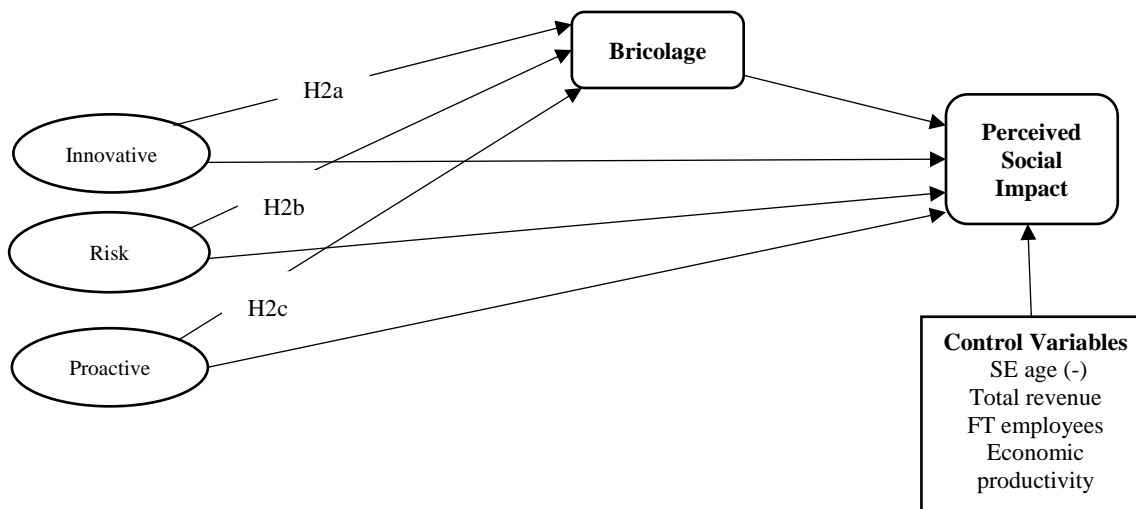
Based on the findings from the factor analyses, correlation and regression analyses, the revised models for the mediation analysis for EO are presented in Figures 7 and 8 below. The first presents EO as a uni-dimensional construct comprised of three sub-dimensions. The second illustrates a three factor version of EO where innovativeness, risk-taking and proactiveness represent independent variables whose relationships can be further dissected. These models are analyzed in section 4.

Figure 5: Revised mediation model for EO as a uni-dimensional construct



Source: Author's own.

Figure 6: Revised mediation model for EO as a three-dimensional construct



Source: Author's own.

4 Mediation Analysis

The next stage in the analysis was to investigate the hypothesized role of bricolage as a mediator between EO, its dimensions and perceived social impact. The following sections include the results from mediation analyses for total EO as a uni-dimensional independent variable, and for innovativeness, risk-taking and proactiveness as independent variables. Path analysis in structural equation modeling (SEM) in Stata was used to test the mediation model. Two advantages of SEM are that it can simultaneously test all relationships within the model, and that it can test the goodness of fit for different nested models (Utsch & Rauch, 2000). The decision was made to use the maximum likelihood estimation in the structural equation model, which uses listwise deletion – that is, it excludes records where any single data observations are missing – in order to avoid issues with missing data. As noted in section 3.1, four control variables are included in the models (social enterprise age, number of full-time employees, total revenue and economic productivity), which reduces the number of observations (n) representing participants who completed all relevant questions. The number of observations is included in each table and figure, and discussed where it affects the model parameters.

4.1 Mediation with Entrepreneurial Orientation as a Uni-dimensional Construct

The first mediation analysis was conducted using EO as a uni-dimensional construct (total EO) with the expectation that the total effect of EO on perceived social impact that is mediated by bricolage is greater than the direct effect of EO on perceived social impact. As illustrated in section 3.2, the first step in the analysis was to conduct a linear regression to determine whether EO predicts perceived social impact. The relationship is significant and EO predicts 6% of the variance of perceived social impact (see Table 43). Next, a regression equation was calculated that included both total EO and bricolage. The path coefficient from

total EO to perceived social impact when bricolage is present was not significant in this case ($\beta = 0.14$; $p = 0.091$); however, the path between bricolage and social impact was significant ($\beta = 0.21$; $p = 0.009$). This result signals that bricolage affects the relationship between EO and perceived social impact, therefore leading to the next step of a mediation analysis.

A mediation analysis was conducted using a structural equation modeling (SEM) equation in Stata. Total revenue (revenue), the age of the social enterprise (se_age), the number of full-time employees (ft_emp), and economic productivity were controlled for in the mediation analysis presented in Figure 8. When the mediation equation was run without the control variables the path coefficients were as follows: EO \rightarrow Perceived Social Impact ($\beta = 0.14$; $p = 0.082$); EO \rightarrow Bricolage ($\beta = 0.37$; $p = 3.46e-09$); Bricolage \rightarrow Perceived Social Impact ($\beta = 0.21$; $p = 0.007$). Without the controls, bricolage fully mediates the relationship between total EO and perceived social impact. When the control variables are in place the relationship between EO and social impact is significant and bricolage therefore partially mediates the two. Figure 9 illustrates the standardized path coefficients for the mediation analysis with control variables, as well as the standardized indirect effect of total EO on perceived social impact (0.09). This indirect effect represents the amount of mediation caused by bricolage. The mediation results are further elaborated in Table 47.

Figure 7: Standardized path analysis for first order model of total EO on perceived social impact

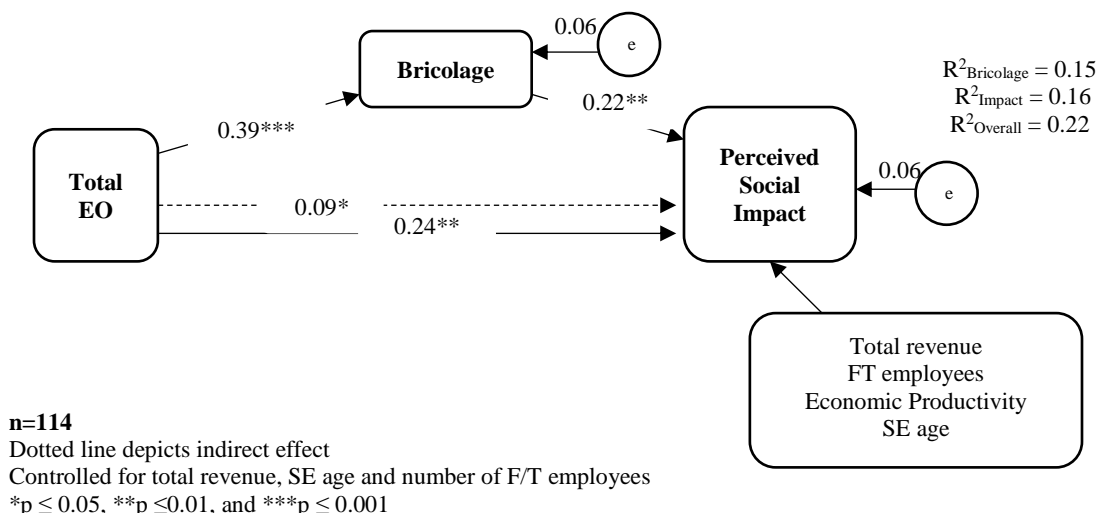


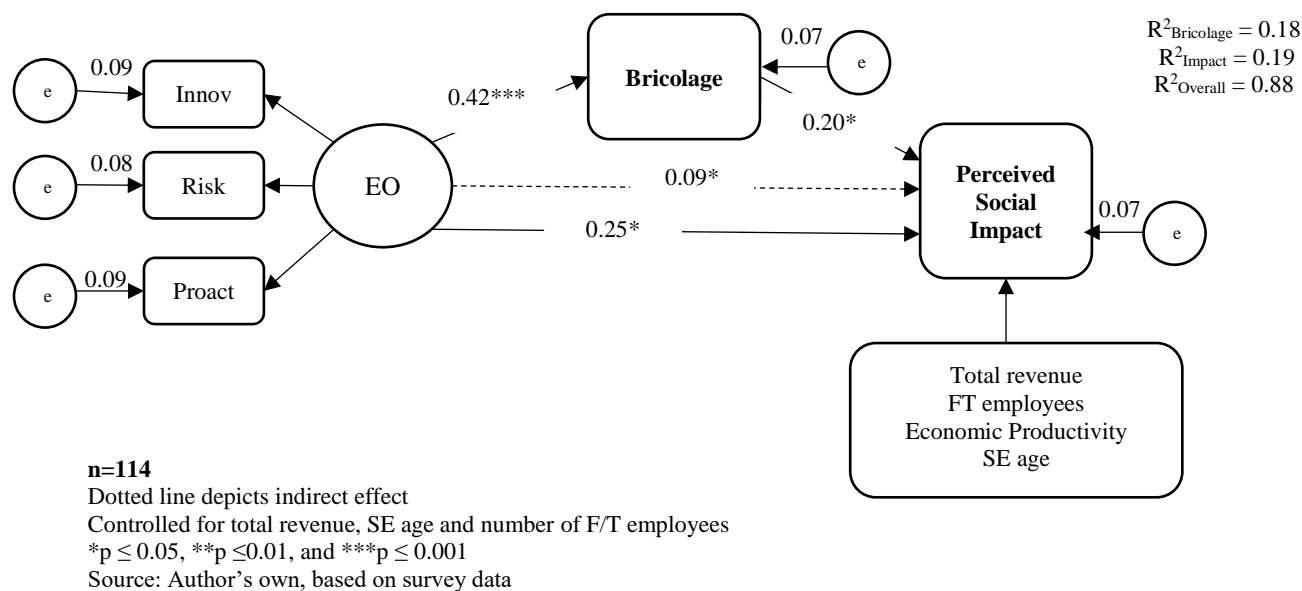
Table 47: Mediation analysis result for first order model of EO as a uni-dimensional construct

n=114					
Mediator Variable: Bricolage					
	β	Std. Error	z	p	95% CI [LL, UL]
Total EO	0.39	0.08	5.05	0.000	[.14, .35]
Dependent Variable: Perceived Social Impact					
	β	Std. Error	z	p	95% CI [LL, UL]
Bricolage	0.22	0.09	2.40	0.016	[.06, .62]
Total EO	0.24	0.10	2.42	0.015	[.04, .41]

Source: Author’s own, based on survey data.
 Controlled for SE age, full-time employees, total revenue and economic productivity.
 LL and UL indicate the lower and upper levels of the confidence interval, respectively.

A second order model was also run that includes EO as a latent variable with innovativeness, risk-taking and proactiveness as observed variables. This addition increases the degrees of freedom in the model, as illustrated in the fit indices presented in Table 48. Again, bricolage partially mediates the relationship between EO and social impact.

Figure 8: Standardized path analysis for second order model of total EO on perceived social impact



The model fit for the models presented in Figures 7 and 8 was assessed using the chi-squared test, overall R-squared (R^2) (also known as the coefficient of determination), the root mean squared error of approximation (RMSEA), the standardized root mean squared residual (SRMR), the comparative fit index (CFI), and the Tucker-Lewis index (TLI). These measures are presented in Table 47. Beginning with the first order model, the result of $\chi^2(4) = 2.520$, $p = 0.641$ is a good result because the ratio of degrees of freedom to χ^2 is 1.59, and within the recommended range of ≤ 2 , and the p -value is > 0.05 (Schreiber, Nora, Stage, Barlow, & King, 2006). The overall R^2 value indicates that the model explains approximately 22% of perceived social impact. The RMSEA and SRMR are well below the recommended cut-off of 0.08 for each; and, the CFI and TLI are above the recommended level of ≥ 0.95 (Acock, 2013; Schreiber et al., 2006). The result of $\chi^2(20) = 34.403$, $p = 0.024$ for the second order model is problematic because the model fails significantly to reproduce the covariance matrix (Acock, 2013). The SRMR is also high (0.096), and the CFI (0.908) and TLI (0.862) are higher than recommended

for model acceptance. It is also worth noting that in both cases $n=114$ and it is recommended that for structural equation modelling where $n < 200$, models with no latent variables are better (Kenny, 2015). Based on this assessment of fit, the first order model is used for discussion purposes in Chapter 6.

Table 48: Fit indices for the first and second order models for EO as a uni-dimensional construct

	n=114							
Total EO	[df]	$[\chi^2]$	[p]	[Overall R ²]	[RMSEA]	[SRMR]	[CFI]	[TLI]
First order	4	2.520	.641	0.218	0.000	0.034	1.000	1.131
Second order	20	34.403	.024	0.886	0.079	0.096	0.908	0.862

Controlled for total revenue, SE age, full-time employees and economic productivity.

Source: Author's own, based on survey data.

Following the analysis of the fit indices, the direct, indirect and total effects (total effects = direct effects + indirect effects) for the first order model were estimated. Standardized effects are reported, as well as the significance levels based on the z tests for the unstandardized solution because Stata does not provide these for the standardized one; however, while the coefficients often vary, the overall significance level typically does not (Acock, 2013). As shown in Table 49, the direct effects are consistent with the standardized path coefficients presented in Figure 9. There is no indirect effect of EO on bricolage, or bricolage on perceived social impact. The standardized indirect effect of EO on perceived social impact is 0.086, $z = 2.09$, $p = 0.037$. The standardized direct effect of EO on social impact is 0.235, $z = 2.36$, $p = 0.018$. The standardized total effect of EO on perceived social impact when mediated by bricolage is 0.321, $z = 3.43$, $p = 0.001$. The presence of bricolage therefore increases the effect of total EO on perceived social impact such that a one unit increase in EO results in a 1.32 change in perceived social impact, versus a 1.24 change when bricolage behaviours are not present.

Table 49: Standardized effects of total EO and perceived social impact with correlated residual for bricolage

Outcome	Direct effect	Indirect effect	Total effect
Bricolage			
Total EO → Bricolage	0.387***	-	0.387***
Perceived social impact			
Total EO → Impact	0.236*	0.086*	0.321***
Bricolage → Impact	0.221*	-	0.221*

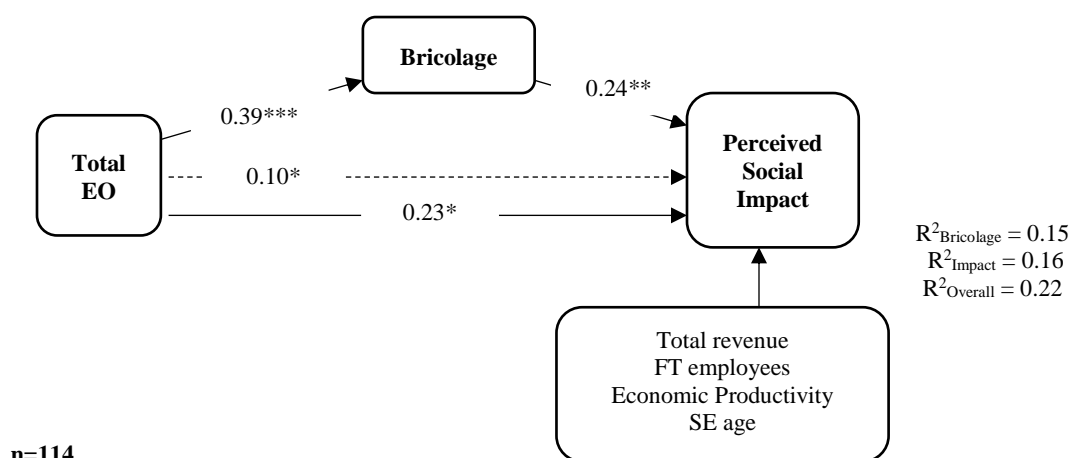
Controlled for total revenue, SE age, full-time employees and economic productivity.

* $p \leq 0.05$, ** $p \leq 0.01$, and *** $p \leq 0.001$

Source: Author's own, based on survey data.

For robustness, the first order model was also run with the factor scores in place of the summative scores for total EO and bricolage to check for consistency in results. As shown in Figure 9 below, the path coefficients p values are consistent in their significance and similar in values. The R^2 values are also the same across both models. All other fit indices for the factor score model indicated a good fit and were nearly identical to those of the summative score model ($\chi^2(4) = 2.98, p = 0.562$; RMSEA = 0.000; SRMR = 0.037; CFI = 1.00; TLI = 1.086).

Figure 9: Standardized path analysis for total EO on perceived social impact with factor scores



n=114

Dotted line depicts indirect effect

* $p \leq 0.05$, ** $p \leq 0.01$, and *** $p \leq 0.001$

Source: Author's own, based on survey data.

These findings confirm that bricolage partially mediates the effect of total EO on perceived social impact, thus leading to the acceptance of Hypothesis 2 (*The relationship between entrepreneurial orientation and social impact is mediated by bricolage behaviours*). In the following section, the same steps are followed to test the mediation effect of bricolage on the model where the sub-dimensions of EO are the independent variables.

4.2 Mediation with EO as a Three-dimensional Construct

The second mediation analysis examined a model including innovativeness, risk-taking and proactiveness as independent variables. A regression analysis including the three dimensions of EO together as predictors of perceived social impact revealed that the model predicts 5% of the variance. However, as shown in Table 50 below, only proactiveness is a significant predictor of social impact ($\beta = 0.20$, $F(3,173) = 5.30$, $p = 0.027$).

Table 50: Regression results with 3 dimensions of EO using perceived social impact as the dependent variable

Predictor	b	b 95% CI [LL, UL]	β	t	p	sr ²	r	n = 177
								Fit
(Intercept)	-1.39	[-2.3, -.52]		-3.16	.002			
Innovativeness	.16	[-.04, .36]	.17	1.60	.111	.014	.22**	
Risk-taking	-.09	[-.23, .06]	-.10	-1.17	.245	.007	.08	
Proactiveness	.17	[.02, .32]	.20	2.23	.027	.026	.26***	
								R ² = .05**

Source: Author's own, based on survey data.

** $p \leq 0.01$; *** $p \leq 0.001$

sr² = semi-partial correlation squared

LL and UL indicate the lower and upper levels of the confidence interval, respectively.

The SEM mediation equation was first run without the control variables and only two paths were significant: Innovativeness \rightarrow Bricolage ($\beta = 0.18$; $p = 0.049$) and Proactiveness \rightarrow Bricolage ($\beta = 0.43$; $p = 2.00e-08$). As shown in Table 51 below, without the control variables

none of the dimensions or bricolage are significant predictors of social impact, and therefore a mediation relationship is not present.

Table 51: Mediation analysis result for 3-dimensional model without controls

	n=171				
	Mediator Variable: Bricolage				
	β	Std. Error	z	p	95% CI [LL, UL]
Innovativeness	0.11	0.56	1.95	0.051	[-.00, .22]
Risk-taking	-0.06	0.04	-1.48	0.138	[-.15, .02]
Proactiveness	0.22	0.04	5.14	0.000	[.14, .31]
	Dependent Variable: Perceived Social Impact				
	β	Std. Error	z	p	95% CI [LL, UL]
Bricolage	0.25	0.14	1.86	0.063	[-.01, .52]
Innovativeness	0.13	0.10	1.29	0.197	[-.07, .33]
Risk-taking	-0.07	0.08	-0.92	0.358	[-.22, .08]
Proactiveness	0.13	0.08	1.51	0.130	[-.04, .29]

Source: Author's own, based on survey data.

LL and UL indicate the lower and upper levels of the confidence interval, respectively.

However, when the control variables are included in the equation the path from proactiveness to bricolage is significant ($\beta = 0.17$; $p = 0.001$), as is the path from bricolage to social impact ($\beta = 0.30$; $p = 0.045$). This result indicates that proactiveness is the only significant indicator of social impact in the model, and that bricolage fully mediates the relationship between proactiveness and social impact when total revenue, SE age, full-time employees and economic productivity are controlled. The standardized indirect effect of bricolage on proactiveness is 0.07. Figure 10 illustrates the path coefficients and standard errors of the first order 3-dimensional model where innovativeness, risk-taking and proactiveness are observed variables, with control variables. Table 52 further elaborates the model properties.

Figure 10: Standardized path analysis for 3-dimensional model with control variables

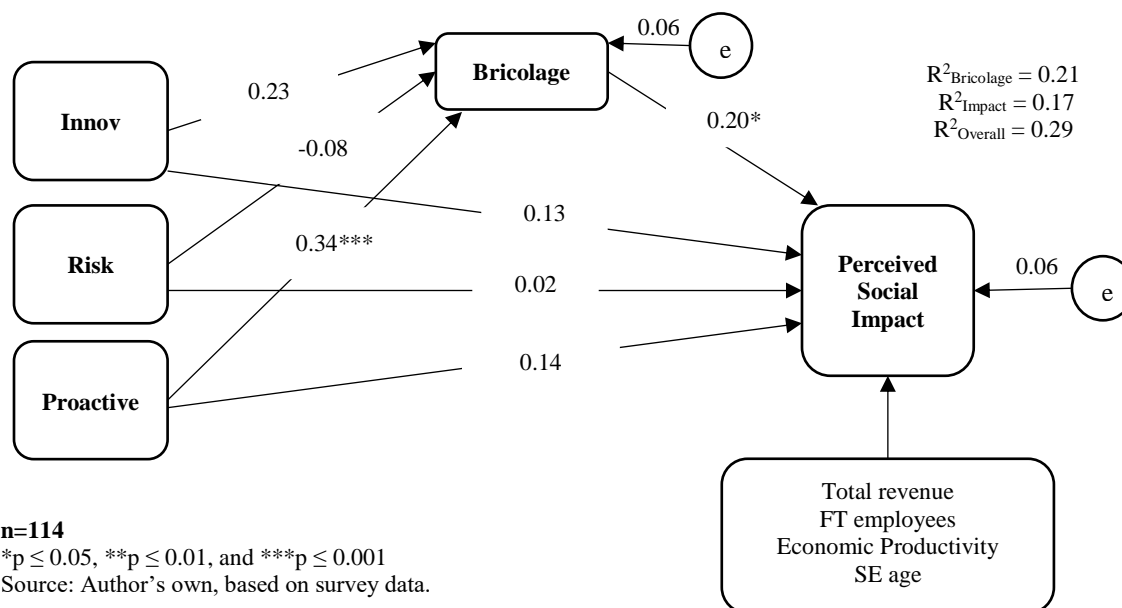


Table 52: Mediation analysis result for 3-dimensional model with controls

n=114					
Mediator Variable: Bricolage					
	β	Std. Error	z	p	95% CI [LL, UL]
Innovativeness	0.23	0.07	1.83	0.067	[-.01, .26]
Risk-taking	-0.08	0.06	-0.80	0.424	[-.16, .07]
Proactiveness	0.34	0.05	3.30	0.001	[.07, .27]
Dependent Variable: Perceived Social Impact					
	β	Std. Error	z	p	95% CI [LL, UL]
Bricolage	0.20	0.15	2.01	0.045	[.01, .59]
Innovativeness	0.13	0.11	1.02	0.310	[-.10, .33]
Risk-taking	0.02	0.10	0.17	0.862	[-.17, .20]
Proactiveness	0.14	0.09	1.25	0.211	[-.06, .28]

Source: Author's own, based on survey data.

Controlled for total revenue, SE age, full-time employees and economic productivity.

LL and UL indicate the lower and upper levels of the confidence interval, respectively.

The fit indices of the model are presented in Table 53. The result of $\chi^2(4) = 3.143$, $p = 0.534$ is a good result because the ratio of degrees of freedom to χ^2 is 0.79, and within the recommended range of ≤ 2 , and the p -value is > 0.05 (Schreiber et al., 2006). The overall R^2 value indicates that the model explains approximately 29% of perceived social impact. The RMSEA and SRMR are well below the recommended cut-off of 0.08 for each; and, the CFI and TLI are above the recommended level of ≥ 0.95 (Acock, 2013; Schreiber et al., 2006).

Table 53: Fit indices for the 3-dimensional model

	[df]	$[\chi^2]$	[p]	[Overall R^2]	[RMSEA]	[SRMR]	[CFI]	[TLI]
Innovativeness Risk-taking Proactiveness	4	3.143	.534	0.285	0.000	0.028	1.000	1.085

n=114

Source: Author's own, based on survey data.

Controlled for total revenue, SE age, full-time employees and economic productivity.

Table 54: Standardized effects of 3 dimensions and perceived social impact with correlated residual for bricolage

Outcome	Direct effect	Indirect effect	Total effect
Bricolage			
Innovativeness → Bricolage	0.124	-	0.124
Risk-taking → Bricolage	-0.047	-	-0.047
Proactiveness → Bricolage	0.168***	-	0.168***
Perceived social impact			
Innovativeness → Impact	0.111	0.037	0.148
Risk-taking → Impact	0.017	-0.014	0.002
Proactiveness → Impact	0.107	0.051	0.158
Bricolage → Impact	0.301*	-	0.301*

Source: Author's own, based on survey data.

Controlled for total revenue, SE age, full-time employees and economic productivity.

* $p \leq 0.05$, ** $p \leq 0.01$, and *** $p \leq 0.001$

When the model was rerun with factor scores in place of summative scores, the significance of the path coefficients was consistent, as illustrated in Table 55 below. In this case, the p -value of the path from innovativeness to bricolage was lower at $p = 0.54$, but still above the

acceptable threshold of 0.05. The overall R-squared value was 0.264, accounting for approximately two percent less of the total variance than the summative scores did. All other fit indices were very similar to the model with summative scores ($\chi^2(4) = 3.54, p = 0.472$; RMSEA = 0.000; SRMR = 0.030; CFI = 1.00; TLI = 1.048). These results provide further robustness for the findings of the summative score model.

Table 55: Mediation analysis result for 3-dimensional factor score model with controls

n=114					
Mediator Variable: Bricolage					
	β	Std. Error	<i>z</i>	<i>p</i>	95% CI [LL, UL]
Innovativeness	0.18	0.09	1.93	0.054	[-.01, .37]
Risk-taking	-0.04	0.09	-0.42	0.677	[-.24, .17]
Proactiveness	0.35	0.09	4.06	0.000	[.19, .61]
Dependent Variable: Perceived Social Impact					
	β	Std. Error	<i>z</i>	<i>p</i>	95% CI [LL, UL]
Bricolage	0.22	0.10	2.30	0.021	[.03, .37]
Innovativeness	0.10	0.10	0.97	0.334	[-.09, .27]
Risk-taking	0.01	0.09	0.16	0.876	[-.19, .22]
Proactiveness	0.18	0.10	1.76	0.078	[-.02, .39]

Source: Author's own, based on survey data.

Controlled for total revenue, SE age, full-time employees and economic productivity.

LL and UL indicate the lower and upper levels of the confidence interval, respectively.

As a result of the mediation analysis of EO as a three-dimensional construct, Hypothesis 2c (*The relationship between proactiveness and social impact is mediated by bricolage behaviours*) is accepted with the stipulation that the relationship only exists with the presence of the control variables. On the other hand, Hypothesis 2a (*The relationship between innovativeness and social impact is mediated by bricolage behaviours*) and 2b (*The relationship between risk-taking and social impact is mediated by bricolage behaviours*) are rejected.

5 Summary

In summary, EO is a predictor of perceived social impact in social enterprises in Nova Scotia, and the dimension of proactiveness is the greatest predictor of the three sub-dimensions of EO. Bricolage partially mediates the relationship between EO and perceived social impact. It also fully mediates the relationship between proactiveness and perceived social impact, but only when SE age, revenue, number of full-time employees and economic productivity are controlled for. Therefore, the relative time in operation, the organization's size (in terms of financial resources and labour force), and its efficiency in converting inputs to outputs have an effect on the relationships between EO, bricolage and perceived social impact. Finally, in relation to the relative fit of the mediation models, the highest variance of perceived social impact is explained in the three-dimensional model of EO with bricolage as the mediator ($R^2 = 0.285$), versus the model with EO as a uni-dimensional construct ($R^2 = 0.218$). Table 56 below provides a summary of the results of the hypothesis tests based on the analysis in this chapter. The following chapter offers a discussion of implications of the findings.

Table 56: Summary of Results of Hypothesis Tests

H1:	Organizations that exhibit higher levels of entrepreneurial orientation are more likely to have greater perceived social impact.	Accepted
H1a:	Innovativeness behaviours in social enterprises are positively associated with perceived social impact.	Accepted
H1b:	Risk-taking behaviours in social enterprises are positively associated with social impact performance.	Rejected
H1c:	Proactiveness behaviours in social enterprises are positively associated with perceived social impact.	Accepted
H2:	The relationship between entrepreneurial orientation and social impact is mediated by bricolage behaviours.	Accepted
H2a:	The relationship between innovativeness and social impact is mediated by bricolage behaviours.	Rejected
H2b:	The relationship between risk-taking and social impact is mediated by bricolage behaviours.	Rejected
H2c:	The relationship between proactiveness and social impact is mediated by bricolage behaviours.	Accepted (with controls only)
H3:	Greater economic productivity in social enterprises is positively associated with higher levels of perceived social impact.	Rejected

CHAPTER 6: DISCUSSION

The impetus for this thesis comes from the recognition that greater understanding is needed in the field of social entrepreneurship (SE) about how constructs like entrepreneurial orientation (EO) and bricolage manifest in this context. In David Bornstein's (2007) words:

Over the past century, researchers have studied business entrepreneurs extensively. They have analyzed their orientation to action, to risk, and to growth; [...] their talents have been nurtured by value systems, government policies, and a wide array of institutional supports. In contrast, social entrepreneurs have received little attention. (p.92)

As illustrated in Chapter 1, identifying the specific traits and skills needed and exhibited by successful social entrepreneurs can be challenging and confusing (Gartner, 1989; Zahra et al., 2009). Understanding organizational behaviours that lead to performance in social contexts can help to shed light on the contextual factors and individual skills needed to increase the impact of social enterprises (Dacin et al., 2010). Building from the notion that SE is not a unique form of entrepreneurship in and of itself, but more so a unique context in which entrepreneurship happens (Chell, 2007), this study aims to advance understanding on how key entrepreneurial constructs that have been identified as particularly relevant to SE (namely, EO, bricolage and economic productivity) act in this context.

This chapter explores the contributions and implications of the findings of the analysis outlined in Chapter 5 for theory and practice. An important contribution of the research pertains to the observed mediation effect of bricolage on EO and perceived social impact. While prior research had highlighted the importance of both EO and bricolage in social enterprises, this represents the first study to combine the full EO scale and organizational

bricolage in one model. The resulting mediation relationship deepens understanding about the processes inherent to SE.

Typically, EO is studied as a one-dimensional construct, although Lumpkin and Dess (1996) argued that EO can be present when all dimensions are present, or only some. By studying EO as both a uni-dimensional construct and one that examines innovativeness, risk-taking and proactiveness separately, this research advances theory on EO as it pertains to social contexts. This contribution leads to a greater depth of understanding of the relationships of the dimensions and social impact, and opens the potential for a future research agenda. Finally, findings related to the lack of relationship between economic productivity and perceived social impact warrant further unpacking. In the sections below, the mediating role of bricolage is discussed in relation to total EO, innovativeness, risk-taking and proactiveness. Rationale for the lack of relationship between economic productivity and perceived social impact is then explored. A summary of implications for practitioners and those supporting SE is presented.

1 The Mediating Role of Bricolage in Entrepreneurial Orientation

Social enterprises exist where the NFP, for-profit and public sectors overlap - and it is in this overlap that the possibility of innovative, entrepreneurial organizations that are equipped to address social problems falls within reach (Perrini & Vurro, 2006a). A general decline in funding for the NFP sector has created pressures for traditional organizational models and approaches. In response, not-for-profit (NFP) organizations “are advised to adopt more entrepreneurial management approaches prevalent in for-profit companies facilitating their transformation into social enterprises” (Tan & Yoo, 2015, p.104). With this in mind, having a strategic EO is a key distinguishing factor between social enterprises and traditional NFP organizations that rely solely

on grants and donations. Entrepreneurial orientation is a well-researched construct in for-profit firms that has been identified as a relevant construct for understanding SE (Lumpkin et al., 2013; Weerawardena & Mort, 2006) and NFP organizations (Morris et al., 2011). However, little empirical evidence exists that bridges EO and SE (Alarifi, Robson, & Kromidha, 2018).

Bricolage is increasingly seen as a key behavioural skillset in social ventures (Bacq et al., 2015; Di Domenico et al., 2010; Gundry et al., 2011) given that social enterprises often operate in resource-constrained environments (Austin et al., 2006). Janssen, Fayolle and Wuillaume (2018) acknowledge that social enterprises engage in material bricolage since they seek to address social problems using any means at hand, but “an additional element that is even more salient is the ability of both the social entrepreneur and the bricoleur to deal with resources’ scarcity in an innovative way” (p.451). Despite the relevance of bricolage to the study of SE, its manifestation in this context is under-researched and little understood (Janssen et al., 2018). To date there have not been any studies that have examined the relationship between EO and bricolage in the context of social enterprises.⁴ The primary contribution of this thesis lies in the empirical examination of these two constructs in the SE domain, and insights about how they interact to affect the perceived social impact of social enterprises.

The findings from this research indicate that EO is an indicator of perceived social impact. Much like in the case of for-profit entities, EO is linked to performance. That is to say that an organization’s propensity to be innovative, take risks and be proactive can lead to greater perceived success in its ability to achieve its social mission. However, when combined with an aptitude to be “scrappy” and make do with existing resources (bricolage), entrepreneurial social enterprises are even more likely to have achieved success in relation to their social goals. I

⁴ This statement is based on a thorough search via Google Scholar as of August 6, 2019. It is possible that others have examined the relationship in conference papers, etc. that have not yet shown up.

propose that this relationship exists for two main reasons: first, the resource constraints facing social enterprises make bricolage behaviours particularly important; and, second, bricolage is the mechanism that increases the availability of slack resources in SE.

1.1 Social Enterprises use Bricolage to Combat Resource Scarcity

Entrepreneurial initiatives are often carried out in resource-scarce environments (Baker & Nelson, 2005; Salunke et al., 2013). In particular, new ventures are typically smaller and often do not have access to the same investment opportunities as established ones since they have not yet built up credibility and legitimacy. Senyard, Baker, Steffens and Davidsson (2014) find that bricolage is an important path to innovativeness in the face of resource constraints in new commercial firms. Stenholm and Renko (2016) study early stage, new firms in Finland and find that bricolage acts as a mediator between the passion of the entrepreneur and firm survival. Their findings indicate that “a resourceful approach to existing resources and creativity in the pursuit of access to new resources contributes to the longevity of the entrepreneurial effort during the highly hazardous early months and years” (Stenholm & Renko, 2016, p.606).

In a study of small and medium-sized enterprises (SMEs) in Malaysia, the relationship between EO and sustainable entrepreneurship (i.e. a triple bottom line approach to running a business) was found to be mediated by bricolage (Hooi, Ahmad, Amran, & Rahman, 2016). The study found that EO plays an instrumental role in the presence of bricolage, and that it is more important than a sustainability orientation (a propensity to prioritize social and environmental values) in predicting sustainable entrepreneurship, which includes economic success.

In the cases outlined above, bricolage plays a positive role in the performance of new, small organizations that face resource disadvantages by virtue of their age and size. The

relationship was mirrored in this research, in the context of social enterprises. The significant, negative relationship identified with the age of social enterprises adds support to the notion that not only do social enterprises face resource constraints, but that younger organizations are likely to be more constrained. It is also plausible that younger organizations (especially those with higher revenues and full-time employees) are generally more entrepreneurial since they have not developed entrenched patterns and behaviours and are motivated to differentiate themselves.

The mediating role of bricolage between EO and perceived social impact indicates that the creative use and recombination of resources is the means by which social enterprises turn entrepreneurial activity (i.e. innovativeness, risk-taking and proactiveness) into impact. Much like new firms in commercial contexts, it is important for social enterprises to seek ways to convert what is available to them into value. In this sense, the findings support the idea that SE is a context of entrepreneurship rather than an entirely unique domain (Dacin et al., 2010). That is, bricolage manifests in a similar way across resource-constrained firms, whether they be social enterprises, start-ups, or operating in scarce environments. However, it is the lack of *access* to resources that provides additional challenges for social enterprises since traditional investment channels are generally less available. This lack of access increases reliance on a wider array of stakeholders for support, making it more difficult to create and implement innovations (Newth & Woods, 2014). In this context, bricolage may play a greater role over the long-term for organizational sustainability.

1.2 Bricolage Increases Resource Availability and Stakeholder Salience for Impact

As the mechanism by which social entrepreneurs find and release value from the resources available to them, bricolage results in an increased availability of resources for impact

creation. Using data from 148 for-profit social enterprises, Stevens, Moray, Bruneel and Clarysse (2015) find that a higher availability of slack resources leads to a greater relative attention to social goals. Given the hybrid nature of social enterprises (Battilana et al., 2015), when resource constraints impede the financial sustainability of the organization the prominence of the economic mission grows. Therefore, the unlocking of resources made possible by bricolage frees space for focusing on the social mission.

Bricolage pertains not only to material resources, but also to the intangible ones related to perceived credibility, which can result in higher stakeholder salience and institutional legitimacy. Pache and Chowdhury (2012) propose a framework for SE education that emphasizes the need for social entrepreneurs to bridge institutional logics across spheres that have different norms and logics such as grassroots innovation, economic and public policy spaces. They note that in order to mobilize the resources that are critical to their success, social enterprises need to be adept at navigating the cultures, interests and norms of various stakeholders to secure social or financial support. Similarly, Newth and Woods (2014) highlight the importance of the combination and recombination of resources (bricolage) for bringing life to social innovations; however, the shape of those innovations depends on the expectations and demands of stakeholders, and their impact depends on take-up based on perceived legitimacy.

The findings of this research indicate that bricolage is critical for translating EO to perceived impact in terms of organizations' success in meeting their mission-related goals, and providing increased quantity and quality of services to clients. Contrary to what was expected, bricolage plays a greater role than economic productivity in creating impact. This finding suggests that the benefits of bricolage may be more complex than unlocking material resources. Based on the research cited above, it stands to reason that by engaging in bricolage behaviours

social entrepreneurs are also creative in how they navigate institutions, systems, and diverse stakeholder expectations – and that this skillful navigation may be as or more important in achieving impact than having access to material resources.

The following sections unpack the relationship between the three dimensions of EO (innovativeness, risk-taking and proactiveness), bricolage and perceived social impact in SE. The greater depth of understanding offered by exploring these dimensions individually is a key contribution of this thesis and helps to shed more light on how they influence bricolage and impact.

2 The Role of Innovation in Social Impact

Social innovation is an integral component of SE and is often emphasized as a key characteristic that distinguishes social enterprises from more traditional NFP organizations (Choi & Majumdar, 2014). Some have noted that it is the non-traditional, disruptive nature of social enterprises that set them apart from other social service providers (Dees, 1998; Peredo & McLean, 2006). Austin, Stevenson and Wei-Skillern (2006) note that (*italics added for emphasis*):

Common across all definitions of social entrepreneurship is the fact that the underlying drive for social entrepreneurship is to create social value, rather than personal and shareholder wealth (e.g., (Zadek & Thake, 1997)), and that the activity is characterized by *innovation*, or the creation of something new rather than simply the replication of existing enterprises or practices. (p.2)

A surprising result of the analysis was the lack of a significant relationship between innovativeness and bricolage, and innovativeness and social impact in the three-dimensional mediation model. While a positive, significant relationship existed between innovativeness and

social impact in the linear regression model, once the other EO dimensions were introduced only proactiveness was a significant predictor of social impact. Thus, although innovativeness is an indicator of social impact, it is perhaps not as important as tends to be implied in the field.

Schulman (2017) highlights the dominant narrative of social innovation as focusing on “one-off (usually incremental) stories of change” (p.10) and notes that if we want to get to a point of adding value to people’s lives (social impact) through new products, processes, services and systems (innovation), investment is needed along the entire development continuum. In other words, good ideas and new inventions are an important but insufficient condition for creating social value. In this sense, it is understandable why traits associated with proactiveness and bricolage are better indicators of social impact.

The relationship between innovativeness and bricolage has been examined by a number of researchers. However, in many of these cases, innovation is the dependent variable and bricolage is found to influence organizations’ ability to be innovative. For example, Salunke et al. (2013) examine how EO (a 4-item scale that includes one item each for risk-taking, innovativeness and proactiveness, and one for adaptiveness) and bricolage (a 3-item scale) manifest in the context of service entrepreneurship in the US and Australia – that is, project-oriented firms such as building and construction services; architectural, engineering and design; healthcare and education services. In a population of 261 firms, they find evidence that service entrepreneurship (EO) and bricolage influence two types of innovation (interactive and supportive), which effect the sustained competitive advantage of firms. In other words, EO and bricolage lead to innovations in how firms interact with and supply services to clients, which result in a competitive advantage. Similarly, Senyard et al. (2014) find that new, resource-constrained firms use bricolage as a means to achieve innovative outcomes.

In a study of social enterprises in the UK and Japan, Liu, Eng and Takeda (2015) suggest that “the development of the organization’s innovation capacity requires the capacity to manage and allocate internal and external resources effectively” (p.273). While they do not refer explicitly to bricolage behaviours, the notion of the effective use of existing resources speaks to these skills and indicates their importance in increasing organizations’ ability to innovate. In a survey of 113 social entrepreneurs, Gundry, Kickul, Griffiths and Bacq (2011) find that bricolage fully mediates the relationship between innovation ecology (institutional and structural supports in the environment that are conducive to innovation) and catalytic innovation (creation of systems change, improved products/services, meeting a social need, generating resources). In their study, the full mediation relationship persists despite the inclusion of the age of the firm, cash flow and number of full-time employees as control variables. They also find a negative correlation between firm age and the model variables, suggesting that newer entrants are more likely to engage in innovation. They note that “bricolage as implemented by social entrepreneurs results in novel approaches to attract and distribute resources, identify overserved or unserved market segments, and offer products and services that are simpler, less costly, and “good enough”” (Gundry et al., 2011, p.17). Given the resource-scarce environments within which they operate, bricolage behaviours are key skills when social enterprises face a lack of institutional and structural supports.

Based on the above-mentioned studies, it is conceivable that while innovativeness is not a significant predictor of social impact in the three-dimensional model, it may be worth examining the role of bricolage and innovativeness with other performance variables in SE. The role of innovation in SE remains important given the inherent motivation to change existing systems and approaches to problems; however, the results in this research indicate merit in taking a more

critical lens to the assumption that innovation is the desired end in and of itself. In this vein, Seelos and Mair (2017) call attention to the “overoptimistic view of innovation’s potential” (p. 5). They acknowledge that the term “innovation” is among the most frequently used in the field and that it has been readily adopted with little thought to its fundamental differences between the business and social sectors. They suggest that innovation does not create impact in and of itself, but rather creates the *potential* for impact. However, many funders emphasize the importance of innovation in criteria for grants and loans. This can lead organizations to use innovation language to attract resources and overemphasize its importance (Polonsky et al., 2016; Seelos & Mair, 2017). There is increasing pressure for social enterprises to be accountable to funders (Chmelik et al., 2016), which presents the risk that organizations increasingly align their goals and evaluations of impact based on the desires of funders (Hervieux & Voltan, 2019; Irene, Marika, Giovanni, & Mario, 2016). These funding requirements inherently assume that more innovation will lead to greater impact, but there are often different interests between funders and end users related to timelines and political agendas (Schulman, 2017).

Seelos and Mair (2017) suggest that social entrepreneurs start to push back against funders and other stakeholders who push them to innovate more, and instead focus on the incremental steps needed to sustain and improve the work. In their model, scaling is the dependent variable, defined as “organizations do more of what they are good at or do things better or both. Scaling thus allows organizations to create immediate and predictable benefits and positive impact” (p.31). They argue that the characteristics of innovation are very different, in that innovative ideas are inherently uncertain, are not business-as-usual, and challenge the organization’s immune system. In line with this thinking, Martin and Osberg (2015) question the extent to which innovation is truly at the heart of SE, as many have assumed. They acknowledge

that many social entrepreneurs have not dedicated their efforts to new ideas, but to the “hard and sloggy work of infrastructure building”, and that “invention is not always part of an intervention” (p.197). Schulman (2017) states that “Where invention is driven by the inventor, innovation must be informed by users. Only by understanding what people and systems need can innovators find the levers for change” (p.5).

In the model here, innovativeness is examined as a dimension of EO in terms of whether it is a predictor of bricolage and perceived social impact. The findings indicate that in isolation, innovativeness is a predictor of perceived social impact. However, when analysed in the context of all three dimensions of EO, the significance of the relationship was removed. This finding is an important contribution to the field in that it puts into question the relative importance of innovation in terms of achieving social impact in social enterprises. A contribution of this research is the re-framing of innovativeness as a predictor of impact, rather than the desired outcome. In the linear regression models, innovativeness predicts approximately five percent of the variance of perceived social impact, while proactiveness on its own predicts double that at nearly ten percent. If innovation was as significant in the outcomes of SE that much of the literature suggests, the opposite finding would be expected.

3 Risk-taking in Social Enterprises

As discussed, the findings in the analysis indicate that total EO in SE is a positive predictor of perceived social impact. However, further analysis of the individual dimensions of EO offer more nuanced insights into how the construct manifests in social contexts, leading to the finding that while proactiveness and innovativeness are significantly correlated with perceived social impact, risk-taking is not. This finding aligns with that of Alarifi et al. (2018), who examine the manifestation of EO in social enterprises in Saudi Arabia. Their results show

that innovativeness and proactiveness are positively associated with firm performance, but that risk-taking is not. As noted in Chapters 2 (Section 3.6) and 3 (Section 2.2.1), risk-taking has been theorized as a paradoxical dimension of EO in social enterprises and entrepreneurial NFPs (Lumpkin et al., 2013; Morris et al., 2011; Weerawardena & Mort, 2006). In their process-based model of how SE leverages social change through entrepreneurship, Perrini and Vurro (2006a) identify the importance of identifying a social entrepreneurial opportunity (proactiveness) and engaging in innovation, but make no reference to taking on greater risks.

Theory suggests that social ventures are less likely to be willing to take risks because the stakes are higher – not only will they risk loss of revenues or closure of the organization, but their social mission and those they serve are also in jeopardy (Morris et al., 2011). Lumpkin et al. (2013, p.777) note that “Constrained access to resources and opportunities based on complex social problems are two antecedents in a social context that call for greater levels of innovativeness and proactiveness”. They suggest that more research is needed to understand the dilemma of risk-taking behaviours where, on the one hand, the enormity of the problems at hand requires openness to risk if they are to be solved and, on the other hand, risk aversion and an inability to overcome resource constraints can lead to reduced options to respond to. Alarifi et al. (2018) surmise that the lower risk tolerance of social enterprises may be due to the lack of funds available to them, such that the funds they do have access to need to be preserved rather than invested in growth opportunities. Schulman (2017) notes how engrained health and safety narratives are in social organizations due to the fact that they often work with vulnerable populations. She points to the fact that the resulting systems and processes to mitigate risks can be a barrier to incorporating novel practice and lead to the avoidance of risk altogether.

Despite the lack of significant relationship between risk-taking and perceived social impact, a positive, significant correlation was found between risk-taking and bricolage. A post-hoc linear regression analysis of these two variables indicated that each unit change of risk-taking increases bricolage by 0.13 ($R^2 = 0.06$, $F(1,177) = 12.21$, $p \leq 0.001$). Therefore, organizations with higher degrees of risk-taking behaviours did exhibit increased bricolage behaviours. The addition of the age of the social enterprise and number of full-time employees as controls did not affect the relationship. However, when total revenue was included as a control there was no longer a significant relationship between risk and bricolage. This indicates that when social enterprises have access to more financial resources, taking risks does not lead them to be able to do more with existing resources – which makes inherent sense since they are less constrained by resource scarcity.

While outside the scope of this thesis, the identified predictive relationship between risk-taking and bricolage merits closer examination to help gain insights into how the unique dimensions of EO manifest in social enterprises. As noted, social entrepreneurs are more willing to take personal risks associated with starting an organization than they are with risks that could have a negative effect on their beneficiaries (Lumpkin et al., 2013). As a practitioner, I have personally experienced the fact that funders are typically unwilling to support experimentation, which leads very little room to try things that do not have a predictable chance of success. This is coupled with the fact that social enterprises often do not have much discretionary revenue, and therefore are unable to fund their own experimentation and learning. The relationship between risk-taking and bricolage suggests that engaging in risk may help organizations become more adept at experimenting with the acquisition, application and recombination of resources – which, in turn leads to greater social impact. The finding that total revenue affects this relationship

offers further support for the need for funding opportunities and discretionary funds that help social enterprises engage in potentially risky activities that don't jeopardize their impact on those they are working to serve.

This closer examination of how risk manifests with perceived social impact and bricolage is a contribution to the field that helps deepen the understanding of how risk-taking behaviours play a role in social enterprises. These organizations may be less likely to take risks overall compared to their commercial counterparts, and greater openness to risk does not appear to lead to their increased ability to achieve their social mission; however, taking risks can help them to get better at making do with existing resources – a set of skills that has a positive association with perceived social impact. A possible explanation is that risk-taking in resource constrained environments can help organizations increase options available to them that are offered by existing resources. In their interviews with social entrepreneurs, Weerawardena and Mort (2006) find that risk aversion is typically associated with organizations' need to focus on survival and the uncertainty of the funding environment. In other words, social entrepreneurs are not willing to risk the survival of their organization by taking on projects that do not have resource security. Seelos and Mair (2017) argue that the extreme vulnerability to failed innovation for those being served in the social sector provides rationale for why innovation may not justify the associated risks. On the other hand, the positive relationship between risk-taking and bricolage suggests that organizations who are more adventurous may also be more able to uncover potential in the resources that surround them. In their investigation of bricolage in social contexts, Di Domenico and Haugh (2010) note that informants:

“reported that they were willing to try out different solutions to social issues, even where they involved greater risks of failure than alternative but less community-driven

strategies. This indicates the prioritization of social value creation over revenue generation and the adoption and shaping of bricoleurial strategies in ways that are best suited to the particular circumstances of the social enterprise and its context” (p.694).

This statement offers another perspective for understanding when social entrepreneurs may be more willing to embrace risk. Where the alternatives present different degrees of alignment with their social mission, they may be more likely to choose higher risk options if they match more closely with the organization’s goals and values. In these cases, one would expect that such choices would lead to greater perceived social impact. Since the data did not support this expectation, the question is raised about what other factors may be at play. The presence of environmental factors such as the degree of economic development, development of the SE sector, and supportive actors (Perrini & Vurro, 2006a) are worth examining to explore whether they give greater confidence to social entrepreneurs to engage in higher risk endeavours.

While perhaps unsurprising, it is worth noting the positive correlation observed between total revenue and risk-taking behaviours, and the negative correlation between organization age and risk-taking. Newer social enterprises may feel there is less at stake in terms of potential failure. They may also be less rooted in the bureaucratic, risk-averse behaviours that tend to get embedded as organizations become more institutionalized in their pursuit of legitimacy and stability (Meyer & Rowan, 1977; Voltan & De Fuentes, 2016). While a significant correlation did not exist with firm size (number of full-time employees), those with higher revenues are more likely to have greater financial stability leading to greater slack resources, which can enable freedom for exploring higher risk options that have potential for higher pay offs. As noted, slack resources open a greater range of possibilities for organizations and are positively related to their relative attention to social goals (Stevens et al., 2015). In cases where resources

are more constrained, there tends to be greater relative attention to short-term economic and efficiency goals.

4 The Significance of Proactiveness

Despite differences in definitions of SE, one commonality that emerges is its problem-solving nature (Galera & Borzaga, 2009), which connects to the importance of proactiveness. The dimension of proactiveness speaks to opportunity recognition, and is defined as “an opportunity-seeking, forward-looking perspective characterized by the introduction of new products and services ahead of the competition and acting in anticipation of future demand” (Lumpkin et al., 2013, p.769). As in commercial contexts, the identification of a social entrepreneurial opportunity is an important part of the SE process that is influenced by individual and environmental factors (Austin et al., 2006; Perrini & Vurro, 2006a). Morris, Webb and Franklin (2011) describe the essence of proactiveness in NFPs as “the degree to which an organization supports the anticipatory development and implementation of innovations in advance of others, thereby enabling growth and enhanced performance” (p.959). It includes organizations’ proclivity to pursue social innovations, seek innovative funding opportunities, and not be held back by change-resistant stakeholders.

The findings of this study reveal that in the three-dimensional model of EO, only proactiveness has a significant, positive relationship with perceived social impact. The results found that bricolage fully mediates the relationship between proactiveness and perceived social impact. However, a mediation relationship did not exist when the control variables were excluded from the model since the relationship between bricolage and perceived impact was not significant. In other words, in younger organizations with access to greater resources (full-time staff and revenue), bricolage plays a role in transforming proactiveness to impact. This is

interesting since on its own, bricolage is a strong predictor of perceived social impact ($\beta = 0.41$, $R^2 = 0.06$, $F(1,172) = 11.87$, $p \leq 0.001$), meaning that when proactiveness behaviours are present they reduce the effect of bricolage on impact. With the controls in place, the role of bricolage is stronger. Younger, resourced social enterprises with the ability to recognize new opportunities benefit more from bricolage than others who may be older or have fewer staff/financial resources. A possible explanation is that proactiveness enables social entrepreneurs to be even more creative and efficient with the use of existing resources when they can be combined with revenue that has been acquired through sales, donations, etc. Bricolage may also help organizations leverage and stretch the resources they have further than they would have otherwise so the combined impact is greater.

Felício, Gonçalves, and da Conceição Gonçalves (2013) examine the effects of transformational leadership and social entrepreneurship (innovation and initiative) on social value and organizational performance in NFP social organizations. They use “initiative” as a synonym for the dimension of proactiveness in EO (Covin & Slevin, 1989). Across 241 Portuguese NFP social organizations they find that SE significantly affects social value, and that “in contrast to the literature, initiative assumes a more important role than innovation in SE” (Felício et al., 2013, p.2144). Their work supports the findings here, which indicate the more important role of proactiveness in predicting perceived social impact.

Many others have noted the importance of proactiveness in successful social ventures. Katre and Salipante (2012) qualitatively examine 23 social enterprises to explore the question of what makes some succeed and some fail. They identified two sets of behaviours that are relevant to proactiveness: conceptualizing the social and economic opportunity, and exploring products and/or services to address that opportunity. In the opportunity identification phase, a number of

behaviours were identified that distinguish successful from struggling enterprises. For example, in most cases of the successful ventures, efforts were made to refine the opportunity definition through extensive research, feedback, interactions with prospective clients, and development of new relationships. On the other hand, struggling ventures tended to identify an economic opportunity first, then seek to define the social opportunity. They also preferred to work with their existing networks and did not welcome constructive feedback. When exploring potential products/services, successful entrepreneurs were “alert to information shared during formal and informal interactions, connected disparate information, and exploited the opportunities presented” (Katre & Salipante, 2012, p.979). Those struggling possessed fixed ideas of what was needed, despite lack of experience with the social issue. They also spent less time seeking feedback and ignored advice, even when facing challenges.

The study by Katre and Salipante offers insights into other factors that may be at play in influencing how proactiveness interacts with bricolage and perceived social impact in social enterprises. Proactiveness requires not only the ability to identify potential opportunities, but the openness to explore the viability and salience of those opportunities from the perspective of their potential effectiveness in addressing the social issue at hand. Ventures that prioritize economic opportunities and take a more closed approach to pursuing them are less likely to achieve successful outcomes. As a result, not all proactiveness behaviours are equal in their effect on performance. This notion is echoed by Mair and Marti (2009) who find that institutional voids offer opportunity spaces for SE, and that “creativity is needed not only for their identification, but also for their development and evaluation” (p.431).

Proactiveness has also been explored as an important characteristic of SE at the individual level. Bargsted, Picon, Salazar and Rojas (2013) describe the psychosocial profile of

social entrepreneurs and refer to proactivity as the “mobilization of a person’s own resources to put the SE plan or project into action” (p.335). They also connect it to being persistent in overcoming obstacles through personal initiative and energy for work. In this conceptualization, proactiveness shares similar characteristics with bricolage – especially when the person is using existing resources to act on identified opportunities. Stenholm and Renko (2016) examine how entrepreneurial passion interacts with bricolage to lead to new venture survival. They define passion as “an individual’s strong, positive inclination toward entrepreneurial activities” (p.595), which is not unlike how proactivity is described by Bargsted et al. (2013). They find that bricolage fully mediates the relationship between passion and firm survival. In other words, entrepreneurs who are passionate about inventing and developing their ventures are more likely to engage in bricolage, and the combined effect leads to the increased sustainability of organizations (Stenholm & Renko, 2016).

If we consider these traits of passion, persistence and initiative as proactiveness at the organization level, its relevance in helping to move on opportunities in resource-constrained environments becomes even clearer. There are many challenges facing social enterprises related to material resource availability, policy/legal frameworks, institutional and ethical barriers that may not apply in commercial contexts (Henry, 2015). Therefore, they need to be resourceful, improvise and overcome a range of limitations (Di Domenico et al., 2010). It stands to reason that the combined orientation of being proactive – both in terms of being able to identify opportunities and persistent in turning them to action – and bricolage has a greater effect on the impact of social enterprises than an orientation to being innovative. Ideas identified by social enterprises need not be innovative in terms of a new approach, product or service - often they represent a social gap that is not being filled by others. As the findings of this study indicate,

perhaps it is more important for the organization to be adept at understanding the context and available resources for addressing the identified idea than for the idea to be new in a way that differentiates it from other enterprises.

The significant relationship of proactiveness in predicting social impact is an important contribution of this thesis. Coupled with the finding that bricolage fully mediates the relationship, there is much further work that can be done to better understand the relationship between proactiveness and bricolage, and to unpack the role of this dimension of EO. As noted in the introduction to this chapter, very little research exists that empirically assesses the relative importance of each dimension of EO – especially in social contexts. Lumpkin et al. (2013) theoretically propose that forward-looking activities associated with proactiveness such as scanning the environment for new opportunities can create social value. Proactiveness can also help to identify and generate solutions to longstanding, persistent problems. On the other hand, given that social enterprises often seek to solve social problems that have existed for a long time and multiple potential opportunities for change are available, organizations can become apathetic in the extent to which they are proactive (Lumpkin et al., 2013). Given that the world is changing at an unprecedented rate and prevailing systems and approaches are being challenged, organizations that sink into apathy in favour of status quo (and therefore have lower levels of proactiveness), are likely to miss opportunities to find new ways of achieving their social goals.

More work is needed to better understand the relationship between proactiveness and bricolage; however, it is plausible that complementarity exists between the forward-focused and environmental scanning behaviours inherent to each. One of the behaviours embedded in entrepreneurial bricolage pertains to collecting odds and ends with the expectation that they may come in handy at some point (Baker & Nelson, 2005). Similarly, proactiveness speaks to being

forward-focused and committed to a vision, and to being alert to opportunities in the environment for achieving that vision. The element of bricolage that involves finding new purposes for existing resources is conceivably amplified by organizations' ability to identify emerging opportunities to meet their social mission. Both constructs are also rooted to an extent in the notion of boldness, and the importance of persevering despite the presence of barriers. This perseverance is particularly important for social enterprises given that they often face challenges related to lower levels of perceived legitimacy compared to commercial organizations. The relative newness of the sector also means that social enterprises encounter barriers associated with not being well understood or valued.

In the context of social enterprises, social innovations related to processes and relationships are often arguably more important than the development of new products and technologies (Moore & Westley, 2011). In addition, social enterprises are not seeking to compete with their counterparts for the most innovative or unique goods and services; instead, their social mission would benefit from others finding a solution to the problem they are trying to solve. It is therefore conceivable that the ability to effectively scan the environment to identify what is working elsewhere and how approaches could be adapted to the local context is relatively more important than developing new products and services. Combining this ability with the skills associated with bricolage could help social enterprises to act on opportunities identified in the surrounding environment, with resources available to them.

5 Economic Productivity

The final relationship to examine here is the lack of positive correlation between economic productivity and perceived social impact. This study did not support the finding by Battilana, Sengul, Pache and Model (2015) that social performance is dependent in part on

economic productivity. It is clear from theory that the hybrid nature of social enterprises means that financial outcomes are important for the sustainability of organizations, and for access to resources to pursue the social mission (Dacin et al., 2010). Imperatori and Ruta (2015) define performance in social enterprises as “the ability to achieve social goals, organizational sustainability and resource development” (p.330). In this sense, more important than efficiency and productivity is the ability for the organization to generate the resources needed to sustain itself over the time needed to achieve its mission.

The closest variable in the model to sustainability pertains to the age of the social enterprise. A closer examination of the correlation table (Chapter 5, Table 43) revealed a significant, positive correlation between SE age and economic productivity at the $p \leq 0.01$ level. This finding suggests that while economic productivity may not be a predictor of social impact, it may influence the ability of an organization to sustain its operations over time. It is also worth considering that the total revenue variable in the survey data includes all funding sources – that is, sales as well as government contracts, grants and donations. While economic productivity is an indicator of how efficiently an organization uses its resources, some funders may be less concerned with efficiency than impact. For example, in social enterprises that are focused on helping people who are challenged in traditional employment settings to have meaningful employment, their productivity may be less important than helping them to find stability in their lives and donors will likely recognize that trade-off. In such cases it is perhaps more important that social enterprises are able to access the resources needed to do their work, rather than to use them most efficiently.

If we consider resource acquisition as the more important factor in achieving social impact in SE, it is understandable that bricolage is more effective at transforming entrepreneurial

behaviours to impact than economic productivity – at least in the short term. However, it is important not to lose sight of the fact that organizations need to generate surpluses to be able to sustain operations through periods of drought and to be able to invest in new opportunities. It is also possible that strong economic productivity leads to greater perceived legitimacy from traditional funders and positions organizations to be recipients of more investment. In addition, organizations with more financial resources may be less vulnerable to the mission drift associated with needing to pursue opportunities that offer revenue but that may not align well with the venture's purpose (Young & Kim, 2015).

Gamble and Moroz (2014) examine the relationship between EO and performance in social enterprises from a theoretical standpoint. They define a 'financial sustainability orientation' (FSO) as a construct that has an interaction effect with EO and social mission orientation. Organizations with a strong EO, FSO and social mission orientation are predicted to contribute to high-growth organizational performance. The FSO relates to the business acumen of the management team and enables efficiency and effectiveness in delivering the mission and goals of the organization. In their words:

In effect, it is an understanding of the 'rules of the game' with which to achieve organizational survival. Emphasis on the maximization of available resources is the key objective of FSO. This is in stark contrast to EO that is focused on discovering/creating innovative opportunities and the creation of new means–ends relationships to exploit them. (Gamble & Moroz, 2014, p.14)

While Gamble and Moroz focus more on the business savviness of managers in their conceptualization of FSO, in the description above the characteristics of bricolage are evident. Reference to understanding the rules of the game speaks to the need for social enterprises to

navigate the complex institutional environments that they operate within to gain legitimacy and not take no for an answer. The emphasis on maximizing available resources speaks to being able to make do and recombine existing resources for new purposes (Baker & Nelson, 2005). As will be noted in the following chapter, it is worth exploring further how traditional business skills interact with bricolage to increase the chances of firm survival over the long term.

6 Implications for Practitioners and Policy

The findings from the data analysis offer a greater depth of understanding as to how EO manifests in social enterprises, and how its dimensions interact with bricolage to affect social impact. There are practical implications for those working in the field that can be considered based on these findings. Firstly, organizational behaviours associated with EO are particularly important in social contexts so managers and investors should focus on developing a strategic approach to operations that is entrepreneurial in nature. In particular, attributes associated with proactiveness such as the ability to identify opportunities and perseverance to overcome obstacles are perhaps most important to hone. While in commercial contexts, risk-taking and innovativeness are strong predictors of performance, in social ones the relationship is more complicated. Taking risks is an inherent part of starting an organization and therefore exists in the operation of social enterprises; however, the risks associated with pursuing growth opportunities in social ventures can potentially jeopardize the organization's ability to serve its clients rather than its ability to generate profits. In this sense there is more on the line and greater risk-taking does not predict greater social impact. Especially in the early days, managers should be prudent in assessing available options and avoid hedging their bets on opportunities that have a potential for greater impact but a lower chance of coming to fruition. It is possible that as the organization becomes more resourced, the relationship between risk-taking and impact could

change – especially if some of the risks result in higher successful payoffs for clients.

Essentially, the organization would need sufficient slack resources to be able to buffer the effects of risks taken and failed.

Funders play an important role in affecting the behaviours of social enterprises. In the traditional NFP sector, government is an important funder and is often risk-averse. Private philanthropists are also important contributors, although they tend to require charitable receipts and evidence of impact, meaning that those funded need to be adequately established so as to have charitable status and evaluation capacity. Some larger foundations exist in Canada that are more open to risk-taking and the potential for failure in the pursuit of social innovations, such as the McConnell Foundation (<https://mcconnellfoundation.ca/>). It is possible that as funders become more risk tolerant that they will influence the behaviours of social enterprises to take greater leaps in experimentation that could positively affect impact.

The findings also show that when each dimension of EO is examined in isolation, proactiveness ($\beta = 0.28$, $R^2 = 0.10$, $F(1,176) = 19.37$, $p = 0.000$) is a greater predictor of social impact than innovativeness ($\beta = 0.21$, $R^2 = 0.05$, $F(1,177) = 8.91$, $p = 0.003$). This is not to say that innovation is not important in social enterprises, but the tendency in the field to emphasize it over and above other behaviours may be over-stated. When the three dimensions of EO are combined in one model, the direct effect of both proactiveness and innovativeness becomes non-significant; however, bricolage mediates the effect of proactiveness on social impact. In this sense, proactiveness and bricolage together become more important in predicting social impact than whether the initiative is innovative. Again, funders have significant power to affect this dynamic by not insisting that funding proposals state how the initiative is different, new and innovative. Instead, more focus could be placed on how proposed projects are positioned to build

capacity for persistence and resourcefulness in constrained environments, and the incremental effects of sustaining work over a longer period of time, rather than continuously pursuing the next shiny promise. The same thinking applies to managers of social enterprises – they should be cautioned against jumping at each innovative idea that emerges, and ensure that focus is placed on deepening work that is impactful.

The mediating role that bricolage was found to play between EO and social impact, and proactiveness and social impact, is critical for deepening understanding of where the field could be strengthened. The key components of bricolage include making do with existing resources, recombining existing resources for different purposes than they were intended, and a refusal to enact limitations (Baker & Nelson, 2005). As seen in this discussion, bricolage acts as a mediator between EO and social impact, meaning it is key in translating entrepreneurial behaviours to impact. The combination of proactiveness and bricolage explains the most variance of social impact, so supports in the field should seek to build capacity for these behaviours. The most tangible interpretation of bricolage includes how material resources such as product inputs, infrastructure, distribution vehicles, etc. can be stretched and reconfigured to optimally serve the organization. However, as discussed, there are other types of resources such as information, reputation/ legitimacy and social that can also be considered.

Social networks have been identified by many researchers as critical for enhancing impact in social contexts (Dufays & Huybrechts, 2014; Hervieux & Turcotte, 2010; Voltan, 2017). Cross-sector partnerships (Clarke & Fuller, 2010; Dentoni et al., 2016) and Collective Impact (Kania & Kramer, 2011) are examples of network building efforts to leverage unlikely relationships for tackling tough social problems. Bricoleurs benefit from strong social networks – be they to access material resources by becoming aware of opportunities through relationships,

or to increase their perceived credibility and legitimacy. In their theorization of how bricolage manifests in social contexts, Di Domenico, Haugh and Tracey (2010) coin the term “social bricolage” and add three dimensions to the original construct developed for entrepreneurial contexts by Baker and Nelson (2005). These include social value creation, persuasion and stakeholder participation. Stakeholder participation essentially speaks to operating a social network strategy to gain access to resourced-based opportunities and new skillsets through relationships, and generate support for planned projects. While social enterprises with greater embeddedness and legitimacy in their local communities tend to benefit more from social networks (Di Domenico et al., 2010), others may increase their social capital if exposed to pre-existing collaborative efforts to strengthen the local ecosystem for social change. In other words, funders and other key stakeholders may be able to increase the impact of their investments by not only focusing on individual enterprises, but also on the ecosystem of social supports available. For example, peer-to-peer networks for exchanging knowledge, raising awareness of work, and connecting people working on similar issues could help increase social enterprises’ ability to engage in bricolage activities.

Persuasion is a tactic used by social enterprises to “convince stakeholders of the potential usefulness of resources and assets and of the business case for social value creation” (Di Domenico et al., 2010, p.696), and is essential for counteracting limitations in resource-constrained environments. This concept has striking similarity with proactiveness and its characteristics of perseverance, and supports the finding here that bricolage and proactiveness combined have an important effect on social impact in SE. Therefore, in addition to supporting social networks, funders and other supporters of the field could invest in capacity building opportunities related to increasing managers’ skills in communicating about their work with

diverse stakeholders, and using data and other means to persuasively appeal to decision-makers and build a case for support with consumers and clients.

As noted above, funders play an important role in influencing the behaviours of social enterprises. From a public policy perspective, it is worth noting that even since the data for this thesis was collected, significant changes are underway in Canada that could affect the availability of resources for SE. In late 2018, the federal government announced that it would invest \$755 million CAD over the next decade in a Social Finance Fund that will “give charitable, non-profit and social purpose organizations access to new financing to implement their innovative ideas, and will connect them with non-government investors seeking to support projects that will drive positive social change” (Government of Canada, 2018). An additional \$50 million CAD will be spent over two years as part of an investment readiness program to increase the capacity of the sector to participate in social finance opportunities. This funding has the potential to shift the SE environment to one of resource scarcity to one that is more evenly matched with commercial enterprises. It will be worth continuing to monitor the sector to determine whether proactiveness and bricolage continue to have as much effect on social performance, or whether access to greater investment opportunities through new means will shift the scales to other skillsets.

Again, while there is a tendency to seek innovations from the field, policymakers should also be tuned into developing programs and policies that support bricoleurs – especially in rural areas. For example, at the municipal level policies related to land use and zoning can affect the ability to use spaces in creative ways. At the provincial and federal levels, policymakers can become more aware of protocols that may prohibit small organizations from working collaboratively to share assets – whether they be small scale farmers and food producers

struggling to meet health and safety requirements to get their products to market, or social entrepreneurs aiming to offer alternative care services in the healthcare field. Greater collaboration is needed between social entrepreneurs and policymakers in general so that there can be more understanding of the SE field and its potential, and open discussions to reduce policy barriers.

The next chapter summarizes the contribution of this thesis and offers concluding remarks about the practical application of the research, limitations of the current data and potential future research, and final thoughts for reflection.

CONCLUSION

It's an ugly irony that those forced to bear the burden of a suboptimal equilibrium are those least able to muster the resources required to shift it. So creativity is required to design a transformative solution, one that addresses the dynamics of cost and value in a new way. (Martin & Osberg, 2015, p.131)

The quote above speaks to the need to be creative in the quest for positive social change. Creativity requires both new ways of working and the ability find new ways to leverage and apply existing resources. As explored here through the lens of bricolage, the latter is perhaps more important in the context of social entrepreneurship (SE). This thesis makes important contributions to the field of SE that are both empirical and theoretical. The use of survey data offers a quantitative empirical contribution to the base of knowledge of the field. Evidence is provided to support the positive, predictive relationship of entrepreneurial orientation (EO) and bricolage on perceived social impact. The inclusion of analysis that unpacks the effect of the individual dimensions of EO (innovativeness, risk-taking and proactiveness) on social impact adds more nuanced insights about how EO manifests in social contexts. The finding of the relative importance of proactiveness offers a theoretical contribution not only to the field of SE, but also to the broader theory of EO. The mediating role of bricolage identified in the relationship between EO and social impact, and proactiveness and social impact, is another important theoretical contribution that deepens knowledge about the behaviours needed to translate entrepreneurial behaviours and strategies to impact.

In an effort to add to the maturation of SE as an area of research, the quantitative nature of this thesis is a contribution that helps to understand how EO and bricolage manifest in social contexts beyond theoretical terms. The finding that proactiveness and bricolage together are

strong predictors of social impact is worth further exploration. At a superficial level it is perhaps unsurprising that the active pursuit of opportunities and creativity with existing resources is important for social enterprises given their resource-constrained environments. However, taking a deeper lens exposes potential nuances between social and commercial enterprises. Rather than aiming to differentiate themselves from their competition, performance in social enterprises is more related to their ability to navigate complex stakeholder environments and stay committed to their mission despite obstacles they face. As theorized by Lumpkin et al. (2013) in their exploration of whether entrepreneurial processes differ in social contexts, collaboration has greater weight than competitive aggressiveness in the pursuit of social goals.

In their typology of social entrepreneurs, Zahra, Gedajlovic, Neubaum, and Shulman (2009) distinguish between social bricoleurs and social constructionists. They describe social bricoleurs as those who are able to “improvise solutions to small-scaled local social problems” and constructionists as those whose advantages result from “their unique capacity to spot and pursue those opportunities that generate social wealth by creating and reconfiguring the processes enacted to deliver goods and services” (p.525). This distinction suggests that bricolage in social contexts is about small-scale problems in local geographies. Based on the findings in this research, it is worth considering that the effects of bricolage in SE span a much wider range of impact. The description of social constructionists speaks simultaneously to proactiveness (capacity to spot and pursue opportunities) and bricolage (creating and reconfiguring processes) – especially when considering that bricolage extends beyond the use and reconfiguration of material resources. Bricolage in SE may be as much about understanding and utilizing very local knowledge and resources as it is about navigating complex institutional environments in order to affect wide-scale systems change. Resources such as “in kind” contributions can add strategic

value to organizations by reducing the extent to which they are burdened by stipulations from funders (Diochon & Anderson, 2009). It is worth exploring further how bricolage can help social enterprises leverage social networks and partnerships to share assets and access in kind contributions to help stretch existing resources.

As highlighted in the theoretical framework and throughout this thesis, SE is considered here as a context in which entrepreneurship manifests, rather than a unique domain on its own. As such, entrepreneurial orientation is a relevant construct in predicting social impact – as are implicit processes such as opportunity recognition and exploitation, and the ability to creatively transform inputs to outputs. Returning to the definitional challenges related to SE (Bacq & Janssen, 2011) it is worth reflecting on how this research might help to add clarity to what constitutes SE. Based on the findings, being proactive and “scrappy” with existing resources has a relatively higher importance in social enterprises than commercial ones. The ability to transform and leverage existing resources (both tangible and intangible) in the pursuit of new opportunities is a critical characteristic of SE. This is reflected in the definition developed by Mair and Marti (2006) and adopted here, but is missing from many others.

As noted in Chapter 1, it is important to be aware of the critical discourses associated with SE. In particular, the embeddedness of SE in the capitalist paradigm can lead to critiques of its potential to change systems (Hervieux & Voltan, 2018). The market-based, entrepreneurship narrative that is prominent in SE discourse leads to emphasis on the importance of being entrepreneurial, and associated legitimacy with these types of behaviours. Thus, while the findings of this research are insightful and help to deepen understanding of social enterprises, it is worth cautioning that characteristics associated with EO in particular may be strong as a result of their perceived importance rather than truly being representative of what is needed to solve

social problems. Going forward, more work to uncover potentially impactful, but less common behaviours in social enterprises could be a fruitful area of research.

In the context of Nova Scotia, much more needs to be done to raise awareness of SE and to build capacity in the sector to be proactive and work collaboratively. As highlighted in Chapter 1, the number of social enterprises in the province is increasing; however, a sense of fragmentation and isolation persists – especially in rural areas. Social entrepreneurship generally faces resource constraints in Nova Scotia due to shrinking availability of operational funding from the public sources for not-for-profit (NFP) organizations, and a lack of understanding of the sector amongst traditional funders. These observations are based on my own personal experience in the field as the Executive Director of a new NFP organization aimed at building the field of systems change. While there seems to be a growing awareness of the need to work together, a history of a scarcity mindset and the resulting need to preserve territory often persists. If bricolage behaviours encourage the development and exploitation of new relationships that expand traditional networks, and help to shift longstanding power dynamics, they could be incredibly impactful in moving to more just social equilibria.

1 Research Limitations

As with any research project, the data and analysis informing this thesis are not without limitations. The focused geographic area is one such limitation. Nova Scotia is a small province in a developed country – although it has among the highest poverty rates in Canada, and the highest rate of poverty amongst children (The Star, 2019). Additional studies in other parts of North America and more diverse geographic areas such as non-Western contexts, developing countries and Europe are needed to assess the generalizability of the findings.

The length of the survey was another limitation in terms of robust data collection. The comprehensiveness of the questions meant that the survey took approximately 45 minutes to answer, which likely affected the response rate and number of fully completed surveys. As a result and as noted in Chapter 4, despite the total number of complete responses (>75% questions answered; n=288) the number of complete observations for all model variables was 114. The reduced sample size had limitations for the structural equation modeling analysis (Kenny, 2015). Future research could take a more focused approach to data collection to reduce respondent burden and increase the sample size.

As noted throughout this study, social impact is a complex construct that is difficult to assess. Unlike in commercial enterprises where objective, quantitative metrics are available to measure performance outputs such as profits and return on investment, social performance is multi-faceted and context specific. The scale developed by Brown (2005) and used in this research helps to capture *perceived* impact, which of course is affected by the biases of those responding to the survey. Given that respondents were primarily founders, managers and staff of the social enterprises in the population, it is plausible that their perceptions of the entrepreneurial nature and resourcefulness of their organizations would be positively skewed. A limitation of the survey design was the lack of focus on client/beneficiary respondents and other organizational stakeholders, which would have added a more holistic perspective of perceived social impact.

Another limitation of the study is that the data was collected at one point in time (summer 2017) and was therefore affected by respondents' perspectives at that moment. Factors such as funding availability, time of year, staff resources, the point in a project's life cycle, etc. could all influence the perceived impact of the work, as well as perceptions about how entrepreneurial and

resourceful the organization is. To gain a more comprehensive and accurate perspective, a longitudinal approach could be applied that would assess perceptions over a time range.

While addressing these limitations would have enhanced the generalizability and reliability of the data, there were practical elements in place that affected the decisions made about the data collection. As noted in Chapter 4, the data were collected as part of a broader provincial sector survey supported by the Nova Scotia government and administered by Common Good Solutions (<http://commongoodsolutions.ca/>). Therefore, the scope, timeframe and target population of the study were pre-determined and changing this process would have necessitated additional resources that were not available. It is worth considering in future research endeavours how these limitations might be addressed to compare results.

2 Future Research

Of course, one study can never sufficiently cover all of the interesting elements of research worth examining for a given research question. Based on the findings here, several future research avenues hold promise. A surprising result was the lack of predictive relationship between economic productivity and perceived social impact. Similarly, there was no significant correlation between economic productivity and EO or any of its dimensions, or with bricolage. There may be other financial indicators that are significantly correlated with social impact and it would be worth uncovering the nuances of these relationships to better understand distinctions between commercial and social enterprises. It may also be worth exploring whether economic productivity plays a role in moderating the effects of organizational behaviours on social impact. Additionally, as noted in Chapter 2, there could also be merit in exploring a moderating role of proactiveness on the relationship between innovativeness and social impact.

The dimension of risk-taking also warrants closer examination. While the finding here that risk-taking is not a predictor of social impact finds support in SE theory, its role is not yet well-understood. As shown in the results, risk-taking is a predictor of bricolage except when total revenue is held constant. It could be useful to further unpack this finding through interviews with practitioners to better understand why the relationship between risk-taking and bricolage decreases as organizational revenues increase. In addition, exploring the role of risk-taking on the success of the economic mission of social enterprises presents a potentially fruitful area of study since managers may be more willing to take risks when the social mission is less directly at stake.

Finally, while this study adds depth to understanding the role of bricolage in SE, more can be done to go deeper. For example, it has been hypothesized in commercial contexts that the positive effects of bricolage can level off or decrease with increased evidence of these behaviours (Baker & Nelson, 2005) – a hypothesis that was rejected in a study of young for-profit firms (Senyard et al., 2014). Future research could explore this idea in social contexts to determine whether bricolage continues to mediate the relationships between innovativeness and proactiveness, and perceived social impact, over time and at increasingly higher levels.

As noted in Chapter 3, the definition for SE used in the survey for this study included for-profit enterprises, which was not the case in prior sector studies in Nova Scotia. However, Table 13 identified that the sub-sample of respondents analysed in the mediation analysis included a high proportion of NFP social enterprises. It would be interesting to further explore how the role of bricolage changes in NFP and for-profit contexts, and whether the relationship between innovativeness and social impact is affected. The external environmental factors that

predict bricolage also need greater understanding so that policy makers, funders and other stakeholders can make more targeted decisions to support the field.

3 Final Thoughts

Since my learning journey in the fields of SE and social innovation began, I have become increasingly interested in the prominent role of relationships for achieving social change. In the words of Roger Martin and Sally Osberg (2015), “no individual – no matter how brilliant and driven – can effect societal change without partners, a supportive system, and most important of all, solidarity with those ill-served by the current status quo” (p.199). In other words, SE will benefit most when we leverage our social networks, engage with those who are experiencing the problem first-hand, and effectively navigate the institutions and systems it’s interacting with. As a practitioner in the field of social change, I continue to witness divides between those in the space with arguably similar value sets and goals. Differences exist in opinions about solutions needed and their implementation. In some cases there is a lack of willingness to engage with decision-makers because they are perceived to have outdated views and to act as barriers to the needed change. In other cases there are fundamental issues of trust based on historic patterns that cannot easily be overcome. And, the resource-constrained environment of SE perpetuates scarcity and preservation mindsets that stand in the way of change efforts. These divides result in fragmented and uncoordinated efforts.

It is my belief that in order to truly shift old power structures that hold inequitable systems in place, and to identify solutions for the wicked problems we’re facing, that we need to find ways to work together, align efforts, and strengthen our collective impact. The competitive nature and perpetual growth model of neoliberal economic markets perpetuate individualism and the need to constantly innovate – even when the benefits of the innovation are negligible. Some

people feel that SE does not go far enough in moving us to a new economic system because it continues to rely on a market-based model that feeds on capitalism. Given the support found here for SE as context for entrepreneurship rather than a unique domain, this sentiment may have merit in the bigger picture. However, such largescale change does not happen overnight and social enterprises can offer a transition vehicle to help direct us to a new future.

Signs that social enterprises are not status quo emerged in this research. The influential role of bricolage signifies the importance of working collaboratively with others and seeking ways of working that limit the exploitation of new resources. Rather than taking an approach that advocates “to each their own”, bricolage behaviours include sharing knowledge, pooling physical assets and skills, and skillfully navigating systemic barriers. In some practitioner spaces, the language of “social innovation” is being replaced with “systems change” in acknowledgement of the need to focus on shifting power, rules and norms at the system level. It is time to think beyond the organizational level to consider how networks and supportive ecosystems can be used to raise awareness of issues and advocate for change, and influence policy makers, funders and other decision-makers.

Returning to the findings from interviews with social entrepreneurs in the early stages of research that informed this thesis, those social enterprises that are “scrappy”, persistent and bold tend to survive and be successful in advancing their mission. It’s time to recognize the positive attributes of being scrappy and its importance in social change efforts - to validate and legitimize its contribution to achieving impact. Those who exhibit “scrappiness” should be supported and capacity building opportunities for developing these skills should be made available to practitioners. It is these individuals and organizations that will lead the way to systems change,

by not being willing to back down in the face of current resource constraints and cultural barriers.

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