Essays on Social Venture Antecedents, Consequences, and Strategies

A dissertation submitted to the
Kent State University Graduate School of Management
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy

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March, 2013
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ACKNOWLEDGEMENTS

This dissertation would not have been possible without the support of many individuals. First, I would like to thank my dissertation committee members for their support and guidance. I am grateful to my advisor, Dr. Sergey Anokhin for constantly encouraging me to get my work out the door, to Dr. Jen Johnson for being a great teaching mentor, and to Dr. G (Alfred Guiffrida) for his contagious passion for the work we do. I would also like to thank Kent State University’s College of Business for providing financial support for my data collection.

I dedicate this dissertation to my beloved family members, who have been with me every step of the way. I am grateful to my parents, Juan Carlos Mendoza and Rufina Abarca, for believing in me and for teaching me that with hard work anything is possible, to my siblings Juan Carlos, Karen, and Kay for their love and inspiration, and to my boyfriend Emir for his endless encouragement, patience, and understanding throughout this process.

Finally, I would also like to thank my friend and colleague Hillary Mellema for reminding me that grad school (and data analysis) can be fun, my first Kent State professor Julie Messing for inspiring me to teach entrepreneurship and being constantly supportive of my efforts, and my co-author and role model Dr. Mark Parry for sharing his valuable research experience and for continuing to work with me.
## TABLE OF CONTENTS

Acknowledgements ........................................................................................................... III
Table of Contents ................................................................................................................ IV
List of Figures ....................................................................................................................... VI
List of Tables ....................................................................................................................... VII

INTRODUCTION .................................................................................................................. 1

1.1 Social entrepreneurship ................................................................................................. 1
1.2 The difference between social and commercial entrepreneurship .............................. 2
1.3 Social ventures .............................................................................................................. 4
1.4 Nonprofit social ventures ............................................................................................ 7
1.5 Summary of Essays ...................................................................................................... 9
1.6 Scope of Data ............................................................................................................... 12
1.7 Intended contribution .................................................................................................. 14

ESSAY 1
Picking up the Slack: Social Venture Creation under Market Failure Conditions ........... 16

2.1 Introduction .................................................................................................................. 16
2.2 Theory and Hypotheses Development ........................................................................ 18
2.2.1 The market failure perspective .............................................................................. 18
2.2.2 Market failure and social entrepreneurship ............................................................ 21
2.2.3 Government failure and social entrepreneurship .................................................... 25
2.3 Methods ....................................................................................................................... 29
2.3.1 Sample and data sources ....................................................................................... 29
2.3.2 Dependent variable ............................................................................................... 30
2.3.3 Independent variables ........................................................................................... 30
2.3.4 Control variables .................................................................................................... 32
2.3.5 Statistical analysis ................................................................................................. 34
2.4 Results ......................................................................................................................... 35
2.5 Discussion .................................................................................................................... 37
2.5.1 Limitations and future research ............................................................................. 40

ESSAY 2
Symbiosis or Competition? The Impact of Social Venture Creation on Commercial Venture Creation ............................................................................................................ 45

3.1 Introduction .................................................................................................................. 45
3.2 Competition: A Population Ecology Perspective ......................................................... 48
3.2.1 Organizational populations and carrying capacities ........................................ 49
3.2.2 Inter-Population Processes .......................................................................... 51
3.2.3 The direct impact of social venture creation on commercial venture creation .... 54
3.3 SYMBIOSIS THROUGH SOCIAL VALUE CREATION ......................................... 57
3.3.1 Social value creation .................................................................................. 59
3.3.2 Social ventures promoting society’s wellbeing .............................................. 61
3.3.3 Society’s wellbeing and commercial venture creation .................................. 65
3.3.4 The mediating effect of society’s wellbeing ................................................. 68
3.4 METHODOLOGY ............................................................................................. 70
3.4.1 Data and sample ......................................................................................... 70
3.4.2 Measures .................................................................................................... 70
3.4.3 Statistical analysis .................................................................................... 75
3.5 RESULTS .......................................................................................................... 76
3.5.1 Post-hoc analysis ...................................................................................... 78
3.6 DISCUSSION .................................................................................................... 81
3.6.1 Limitations and future research .................................................................. 82

ESSAY 3
At the Mercy of the Market: Investigating Social Venture Failure.............................. 90

4.1 INTRODUCTION ............................................................................................... 90
4.2 THE IMPORTANCE OF RESOURCES .............................................................. 93
4.2.1 Resource dependence theory ...................................................................... 94
4.2.2 Resource based view ................................................................................. 96
4.3 CONCEPTUAL FRAMEWORK .......................................................................... 98
4.3.1 Managing dependence with earned income strategies ............................... 98
4.3.2 The effect of unrelated business income .................................................... 101
4.3.3 The effect of environmental characteristics .............................................. 104
4.4 METHODOLOGY ............................................................................................. 107
4.4.1 Data and sample ....................................................................................... 107
4.4.2 Measures .................................................................................................. 108
4.4.3 Statistical analysis ................................................................................... 110
4.5 RESULTS .......................................................................................................... 112
4.6 DISCUSSION .................................................................................................... 114
4.6.1 Limitations and future research ................................................................. 117

REFERENCES ......................................................................................................... 125
LIST OF FIGURES

Essay 1

Figure 1. Interaction of transfer payments and unemployment rate 44

Essay 2

Figure 1. Interaction of wellbeing index and social venture creation rate 89

Essay 3

Figure 1. Proportion of Unrelated Business Income interaction 123
Figure 2. Income per capita interaction 124
LIST OF TABLES

Essay 1
Table 1. Descriptive statistics and correlations 42
Table 2. Random effects GLS regression results 43

Essay 2
Table 1. Descriptive statistics and correlations for CFA 84
Table 2. Confirmatory factor analysis results 85
Table 3. Descriptive statistics and correlations for mediation analysis 86
Table 4. Regression results: Mediation analysis 87
Table 5. Regression results: Post-hoc analysis 88

Essay 3
Table 1. Descriptive statistics and correlations 120
Table 2. Hazard ratios for predictors of social venture failure 121
Table 3. Coefficients for predictors of social venture failure 122
1.1 Social Entrepreneurship

Social entrepreneurship is considered as different and challenging to research due to its paradoxical nature (Peattie & Morley, 2008). Research in this area has been characterized by scholars pointing out the lack of consensus regarding the definition of the term and by a lack of a clearly established research agenda (Nicholls, 2010). The existence of multiple definitions has been attributed to the lack of a unifying paradigm (Bacq & Janssen, 2011) and the fact that social entrepreneurship is studied under different domains (Weerawardena & Sullivan Mort, 2006). Despite the fragmented nature of the field, common ground exists across studies. Dacin and colleagues (2010) found four key factors that have been the focus of multiple definitions of social entrepreneurship. The factors include the characteristics of social entrepreneurs, their operating sector, the processes and resources used, and the primary mission and outcomes associated with the social entrepreneur. The authors conclude that definitions focusing on the social value creation mission and outcomes are the most useful for understanding the uniqueness of social entrepreneurship. For instance, Zahra and colleagues (2009) found that the common denominator among twenty different definitions was that “social entrepreneurship relates to exploiting opportunities for social change and improvement, rather than traditional profit maximization” (p. 521).

Narrow views of social entrepreneurship, focusing on a few aspects of the factors identified by Dacin and colleagues (2010), have contributed to the definitional minefield. A broad view that can be employed across contexts and different levels of analysis is necessary to unify the field. In this dissertation, I adopt Mair and Marti’s (2006) broad view of social entrepreneurship. The authors define it as “a process involving the innovative use and
combination of resources to pursue opportunities to catalyze social change and/or address social needs” (p. 37). This definition reflects the authors’ three basic assumptions: (1) social entrepreneurship is the process of combining resources, (2) the resource combinations are aimed at creating social value, and (3) social entrepreneurship involves the offering of products and services as well the creation of new organizations. This broad view is relevant to the scope of the three essays that comprise this dissertation. Essays 1 and 2, for instance, focus on the creation of social entrepreneurial organizations. Essay 2 also delves into social value creation, while Essay 3 focuses on the use of relevant resources for the survival of the social venture.

1.2 The Difference between Social and Commercial Entrepreneurship

In order to justify the study of social entrepreneurship as separate phenomenon from traditional or commercial entrepreneurship, a number of efforts have been made to uncover the differences between the two types of entrepreneurship. The consensus in the literature is that the main distinction between commercial and social entrepreneurship lies in the relative priority given to social wealth creation versus economic wealth creation (e.g., Lumpkin et al., 2011; Mair & Martí, 2006; Zahra et al., 2009).

Austin and colleagues (2006) conduct a comparative analysis of the two phenomena and propose that the most relevant differences rest on four aspects. The first aspect refers to market failure, which creates different types of opportunities for social and commercial entrepreneurship. The authors establish that opportunities for social entrepreneurship originate from social market failures, which occur when commercial market forces do not meet a social need. The second factor is the organizational mission, since social ventures’ mission consists of both commercial and social dimensions. The third factor refers to resource mobilization,
specifically related to human and financial resources. The authors explain that fundamental differences exist that lead to different approaches in managing these resources. Finally, performance measurement is another fundamental differentiator, especially because the need for measurement of social impact complicates accountability and stakeholder relations for the social venture.

Santos (2009) further explains the difference in terms of a tradeoff between value creation and value appropriation. The author suggests that what distinguishes social from commercial entrepreneurship is its focus on value creation. Another distinguishing characteristic is that social entrepreneurship is the mechanism that ensures that positive externalities are identified and internalized in the economic system. Externalities arise when economic activity creates an impact beyond the objective function of the agents developing the activity. Santos explains that when strong positive externalities exist for which the value creation potential is greater than the value appropriation potential, social entrepreneurs will act on those value creation opportunities. He proposes that, unlike commercial entrepreneurs who seek to create a sustainable competitive advantage, social entrepreneurs will seek to create a sustainable solution to the problem. Therefore, social entrepreneurs tend to put systems in place that reduce their stakeholder’s dependencies on the organization and increase stakeholder’s ability to contribute to the solution. That is, social entrepreneurs build on the logic of empowerment rather than on the logic of control.

Whereas Santos’ conceptualization is more outcome-based, Corner and Ho (2010) focus on the antecedents of social entrepreneurial activity, specifically opportunities. The authors claim that opportunities in social entrepreneurship are different because, unlike commercial opportunities, they involve addressing social problems and creating social value. In addition,
they explain that the context for social opportunities is different, because these opportunities are embedded in a social or community context. According to the authors, these unique aspects justify the study of social opportunity identification as a separate phenomenon from that of commercial opportunity identification.

In this dissertation, I build on previous research by considering social entrepreneurship as a separate phenomenon from commercial entrepreneurship. In Essay 1, I test claims regarding market failure and find that, indeed, social market failure generates opportunities for social entrepreneurs. Perhaps most relevant to this distinction is Essay 2, in which I take a population ecology approach to study social and commercial ventures as distinct organizational populations that compete for resources.

1.3 Social Ventures

Similar to mainstream entrepreneurship, social entrepreneurship research involves the study of the entrepreneur, the opportunity, the firm, and the context. In this dissertation, my main focus is on the firm, though I also investigate issues relevant to the context and the opportunity. The firms created by social entrepreneurs are referred to in the literature as social organizations, social ventures, social businesses, social entrepreneurial ventures, or social enterprises. Throughout my essays, I refer to these organizations simply as social ventures. Social ventures are defined as organizations created to exploit opportunities for social value creation (Lumpkin et al., 2011; Zahra et al., 2009).

Consistent with the broad social entrepreneurship literature, Peattie & Morley (2008) find that the two defining characteristics of social ventures are: (1) the primacy of social aims and (2) that the primary activity involves trading. For this reason, the authors refer to these organizations
as paradoxical hybrids. It follows that social ventures face the issue of multiple identities, since they possess the ‘social service identity’ characterized as philanthropic and charitable on one side; and the ‘business identity’ characterized by a focus on financial results (Smith, Knapp, Barr, Stevens & Cannatelli, 2010). Having multiple identities is bound to create tensions within the firm. Thus, a good deal research in social entrepreneurship has focused on how social ventures manage their business and social sides. Essay 3 of this dissertation fits nicely into this stream, since it focuses on commercial income generation strategies and how they may lead to a nonprofit social venture failure.

Given the aforementioned characteristics, researchers agree that social ventures are not characterized by their legal form or structure (Austin et al., 2006; Bacq & Janssen, 2011; Mair & Martí, 2006). According to Kistruck and Beamish (2010) the term ‘form’ refers to the legal characterization of the organization—for profit or nonprofit. In contrast, the term ‘structure’ refers to alternative configurations around which firm’s activities are organized. The authors developed a continuum of structure that ranged from internal operations to informal external partnerships. They found that a structure that allows for a higher degree of separation between economic and social activities makes both legal forms more successful for engaging in social entrepreneurship, whereas a higher degree of integration hampers success.

Regarding the choice of legal form, Townsend and Hart (2008) propose that when the goal of maximizing economic profits dominates, the entrepreneur will be more likely to choose a for-profit organizational form. Conversely, when the goal of maximizing social value dominates, entrepreneurs will be more likely to choose a nonprofit form. The choice of each form becomes more complex when the social entrepreneur pursues a double bottom-line—social and economic goals are equally prominent. In this case, the importance of the institutional environment in
determining the organizational form increases. The authors propose that when stakeholders emphasize economic objectives, social entrepreneurs will choose to organize as a for-profit and vice versa. Similarly, when the social venture perceives that it will be able to procure private investment capital and similar resources, it will organize under a for-profit form. Conversely, if the social venture perceives that it will be better able to procure resources towards charitable purposes, it will organize as a nonprofit.

Though it seems like the vast majority of social ventures are incorporated as nonprofits, the number of for-profit social ventures is increasing. Yunus and colleagues (2010) define a for-profit social venture as “a no-loss, no-dividend, self-sustaining company that sells goods or services and repays investments to its owners, but whose primary purpose is to serve society and improve the lot of the poor (p. 311).” Dees and Anderson (2003) provide a broader definition of for-profit social ventures as organizations that are legally incorporated as for-profit entities and are explicitly designed to serve a social purpose while making a profit. In their definition, the social purpose is not necessarily related to poverty alleviation. The authors argue that the need for innovative, cost-efficient, and sustainable ways to address social problems, has led social entrepreneurs to create for-profit organizations to serve social purposes. They explain that for-profit social ventures are better able to promote efficiency and innovation, are better able to respond quickly to demand, have better access to skilled personnel, and can leverage scarce public and philanthropic resources since they have access to capital markets. The main challenge of a for-profit social venture is managing the complexity of combining social and profit objectives, which may compromise their social value creation ability, their financial performance, or both.
1.4 Nonprofit Social Ventures

In advancing a conceptualization of social entrepreneurship, Weerawardena and Sullivan Mort (2006) explain that just as not all for-profits can be considered social, not all nonprofits can be consider entrepreneurial. Yet, the authors argued that social entrepreneurship is an area that pertains to both the entrepreneurship and the nonprofit marketing domains. Several other studies have focused on the nonprofit sector to uncover social entrepreneurship phenomena. Due to the prevalence of nonprofit social ventures in society and in the literature, this dissertation focuses exclusively on those organizations. Though the conceptual frameworks in Essays 1 and 2 were designed to apply to social ventures in general, the empirical tests are conducted in the nonprofit sector. Essay 3, in contrast, focuses on phenomena exclusive to the nonprofit sector.

Recalling the defining characteristics of social ventures, there is no doubt that nonprofit organizations have a social mission as their primary purpose. To obtain their nonprofit status, these organizations have to explicitly state their social mission and demonstrate that fulfilling it is their primary aim. Thus, these organizations are inherently social. A certain degree of controversy exists regarding the entrepreneurial aspect of these organizations. LeRoux (2005) argues that the term ‘entrepreneurial,’ when used in the nonprofit sector, refers to “any income generating strategies that are characteristic of for-profit businesses (p. 351)” such as the sale of products and services. The author claims that budget cuts or budget stagnation experienced by nonprofits are the main driver of entrepreneurial behavior within these organizations. Dart (2004) explains that revenue-source diversification, private sector partnership, and social purpose businesses are other activities considered as entrepreneurial in the nonprofit sector. He concludes that social ventures are different from traditional nonprofits in that they blur boundaries between nonprofit and for-profit activities.
From a different perspective, Badelt (1997) explains that literature of entrepreneurship within nonprofit organizations has mostly integrated Schumpeter’s view of entrepreneurs as individuals who engage in creative combinations for producing new outcomes. Therefore, entrepreneurship theories suggest that individual’s entrepreneurial behavior explains why nonprofit organizations are founded and what type of organizational choice they make. The author proposes that if nonprofit entrepreneurs are Schumpeterian, they would be characterized by innovativeness in their outcomes and processes. His review of the nonprofit entrepreneurship literature shows that a number of studies found evidence of innovative behavior, since nonprofits provide new services to their communities. In addition these organizations have innovative processes in place especially regarding personnel, since they rely more on volunteers than on employees. Thus, this stream of research complements the view of nonprofit social ventures as those that generate part of their income from trading, to include those nonprofits that implement innovative processes and solutions to social problems.

Finally, researchers agree that the creation of organizations, in and of itself, constitutes an entrepreneurial act (Gartner, 1989). Consistent with this view, social entrepreneurship research agree that the creation of social ventures, as a form of entrepreneurship, should be studied under the social entrepreneurship domain (e.g., Mair and Martí, 2006; Short et al., 2009). Essays 1 and 2 of this dissertation focus on the creation of nonprofit social ventures. Similar to the new venture creation literature, I consider the creation of the venture to be the entrepreneurial act and make no inferences regarding the future entrepreneurialism of the nonprofit. Essay 3, in contrast focuses on strategic issues of the nonprofit by investigating one of the characteristics researchers have advanced as essential for nonprofits to be considered entrepreneurial, namely earned income generation.
1.5 Summary of Essays

This dissertation is comprised of three essays, each addressing a research question relevant to social ventures and their environment. Essay 1 addresses the need for research concerning environmental influences on social entrepreneurship by specifically focusing on the environmental conditions that affect social venture creation rates. Though some scholars have suggested that entrepreneurs respond to certain socioeconomic conditions by engaging in social venturing activity (e.g. Weerawardena & Sullivan Mort, 2006), compelling empirical evidence is still lacking. A prevalent explanation of social venture creation is the market failure perspective. This perspective holds that social ventures are created to address social issues that the market and the government have failed to deal with effectively (Austin et al., 2006). In this essay, I delve into the market failure perspective to explain social venture creation rates and provide an empirical test at the macro-level.

Market failure happens under different circumstances, more relevant to social entrepreneurship is when the market fails to produce public goods, produces negative externalities, or creates undesirable income distributions. These situations usually warrant government intervention aimed at correcting the market failure. Entrepreneurship researchers argue that commercial entrepreneurs find profit opportunities under these market failure conditions (Dean & McMullen, 2002). However, there exist situations in which neither the government nor commercial entrepreneurs are able to remove such obstacles, thus giving rise to opportunities for social venture creation.

The results in this essay support the market failure perspective by suggesting that social venture creation rates increase with suboptimal economic conditions and high levels of government failure in dealing with social issues. Interestingly, the results suggest that social
venture creation rates are higher when government failure is high, regardless of the socioeconomic conditions. While under poor socioeconomic conditions, social venture creation rates seem to increase even when the government engages in efforts to correct these conditions. This suggests that social ventures may complement government efforts to address market failure, which gives rise to possible implications regarding cross-sector collaboration. The results also help explaining a current trend in which communities take more responsibility for their own socioeconomic development by creating nonprofit organizations. Haugh (2007a) suggested that this trend had also been influenced by changes in government and expenditure policies, which is in line with my empirical results.

As I mentioned above, researchers have been concerned with uncovering the differences between commercial and social entrepreneurship. Research investigating how social entrepreneurship influences commercial entrepreneurship, however, remains scarce in the social entrepreneurship literature. Following an ecological perspective (Hannan & Freeman, 1977), Essay 2 predicts that social venture creation exerts a negative influence on commercial venture creation, as social and commercial ventures compete for similar resources at the time of founding. Previous research has also suggested that a positive relationship exists, but it has failed to account for the mechanism through which a positive influence may occur. Following the social entrepreneurship and new venture creation literatures, I propose that such mechanism is social value creation. That is, social ventures create better environments in which commercial ventures can be created. This effect, in turn, diminishes the negative influence suggested by population ecology.

The results strongly support the hypothesized competitive relationship between social and commercial ventures. Similarly, the results suggest that social ventures, in fact, create social
value that improves the wellbeing of the region in which they operate. The wellbeing of the region was assessed by means of the wellbeing index, a measure that incorporates indicators such as unemployment rates, educational attainment, income, crime rates, and welfare among others. The effect of the wellbeing index on commercial venture creation rates was different from expected. Thus, I conducted a series of alternative analyses with the suspicion that the relationship was more nuanced than originally hypothesized. These analyses uncovered a U-shaped relationship between the wellbeing of the region and the creation of commercial organizations. Furthermore, this relationship was moderated by social venture creation rates, which made the U-shape relationship less pronounced.

The findings from Essay 2 contribute to the social entrepreneurship literature in a number of ways. First, the flow of resources toward social ventures, as evidenced by the enduring negative influence on commercial venture creation rates, lends support to the notion that social entrepreneurship is becoming a new paradigm (Nicholls, 2010). This essay also contributes to the social entrepreneurship literature by taking a new perspective, the rates approach (Aldrich, 1990), to study the creation of social ventures. In addition, the findings contribute to the mainstream entrepreneurship literature by demonstrating that new venture creation rates are not only affected by the wellbeing of a region, but also by the creation of social ventures.

Essay 3 examines a series of factors that affect social ventures’ failure at different levels of analysis, specifically at the firm- and environmental-levels. Social entrepreneurship scholars have expressed the need for research that addresses factors that may lead or prevent failure among social ventures (e.g. Haugh, 2005). Following both Resource Dependence Theory (Pfeffer & Salancik, 1978) and the Resource Based View (Barney, 1991), this essay proposes that nonprofit social ventures engage in strategic actions to ensure the continuous flow of
resources. Such actions, in turn, should reduce the probability of organizational failure. In this essay, I uncover the effect of earned income strategies and unrelated business activities on the probability of nonprofit failure. In addition, I investigate the influence of social venture concentration and the availability of financial capital.

The results suggested a U-shape relationship between earned income and the probability of nonprofit failure. This relationship holds when the nonprofit social venture generates high proportions of income from unrelated business activities, but becomes an inverted-U when the proportions of unrelated business income are smaller. The availability of financial capital had a similar effect on the relationship. Some concerns are raised regarding one of the definitions of entrepreneurialism in the nonprofit sector. That is, the requirement that nonprofits generate a good proportion of their income from commercial activities. The results suggest that earned income generation is a good strategy to prevent failure among nonprofits, as long as these organizations do not over rely on this source of revenue.

This essay contributes to the social entrepreneurship literature by complementing resources dependence theory with the resource-based view to provide a more detailed analysis of social venture failure. The results uncover the survival implications of an important strategy commonly employed by nonprofit social ventures, namely earned income generation. In addition, the results shed light on the influence of environmental conditions on the survival of nonprofit social ventures.

1.6 Scope of Data

The data for this dissertation consists of information on nonprofit social ventures in the state of Ohio, as well as information on each of the 88 counties that comprise the state. Data
related to nonprofit organizations were gathered from the Internal Revenue Service Exempt Organizations Business Masterfile and Microdata Files used in the statistics of income studies. Data regarding a series of county indicators was gathered from a variety of secondary sources including the U.S. Census Bureau, the Ohio Department of Development, the Bureau of Economic Analysis, and the Ohio Department of Taxation, among others.

Empirical analyses for Essays 1 and 2 are conducted at the county-level. Thus, data on individual nonprofits was aggregated to this level by matching each nonprofit organization to its respective county of residence. Relevant indicators such as the nonprofit creation rates, nonprofit concentration, and the total active nonprofits in the region were calculated for each county. Since it is possible to obtain these numbers from the IRS Masterfile, analyses in Essays 1 and 2 include the population of nonprofit social ventures in the state of Ohio, as well as the 88 counties in the state. Essay 3 is a multi-level study conducted at the firm- and county-levels. Two crucial firm-level variables, earned income and unrelated business income, are not available through the IRS masterfile. Instead, this information was obtained from the IRS micro data files, which contain a sample of nonprofit organizations from the entire country. Information on Ohio nonprofits was extracted from these files and was subsequently supplemented by the information available in the IRS Masterfile. Thus, the empirical analysis for Essay 3 consists of a sample of nonprofit organizations in 84 different Ohio counties.

The fact that the data was gathered from a single state may raise some generalizability concerns. However, relevant national and state statistics indicate that the state of Ohio is highly representative of the entire country. First and foremost, the number of active nonprofit organizations per 100,000 residents in the state of Ohio is 585, which exactly matches the national average and comes significantly close to the national median of 557 nonprofits per
100,000 residents (Internal Revenue Service). Similarly, the number of entrepreneurs, as reported by the Kauffman Foundation, amounts to 270 entrepreneurs per 100,000 residents for the state of Ohio and 290 for the entire U.S. (Fairlie, 2005). In terms of income, Ohio reports $32,000 per capita income which resembles the national average of $34,000 per capita (United States Department of Commerce). The state of Ohio is also close to the national median in terms of welfare recipients, ranking #24 with 1.61 welfare recipients per 100 people (United States Department of Health and Human Services). In addition, the state is comprised of a wide variety of rural, suburban, and urban areas, which make it a rich environment with enough variability to test our hypotheses.

1.7 Intended Contribution

With the three essays included in this dissertation I intend to contribute to the social entrepreneurship literature by employing established theoretical perspectives and conducting rigorous empirical testing. Nicholls (2010) explains that the development of research in social entrepreneurship is in a pre-paradigmatic stage since it is characterized by deep debates over legitimate methods, problems, and the usefulness and quality of alternative solutions. The methodologies used in the field consist of descriptive case studies based on available data rather than on building new data sets. Thus, employing a more rigorous methodology to social entrepreneurship phenomena would contribute to the transition beyond the pre-paradigmatic stage of the field.

A literature review by Short and colleagues (2009) uncovered some key issues pertaining empirical research in social entrepreneurship. Some pressing issues included the sporadic use of formal hypotheses, the predominance of case studies which limit generalizability, and statistical
power issues due to small sample sizes. The essays in this dissertation effectively address those issues by developing formal hypotheses and employing quantitative methods on a large sample of organizations. In addition, the empirical analyses were driven by rigorous theoretical development, which researchers have generally failed to do in the social entrepreneurship literature (Moss, Short, Payne & Lumpkin, 2010).

Lastly, this dissertation contributes to the field of social entrepreneurship by uncovering relevant environmental influences in the phenomena investigated in each essay. Gras and colleagues (2011) conducted a study aimed at identifying future research directions that would benefit the field of social entrepreneurship. They argued that the progression of the field can be hampered if researchers do not communicate with each other and if a clear understanding of the future of the field is not achieved. In their review of articles that provide clear directions for future research, the authors identify that the one aspect suggested across all papers was the external influences on social entrepreneurship. In addition, their survey of social entrepreneurship scholars found that the theme rated as most interesting concerns the general context surrounding social entrepreneurs such as culture, market forces, and economies. Thus, this dissertation’s contribution is not only timely, but it is also interesting to scholars in the field. A more detailed description of the contributions is provided in each of the appended essays.
ESSAY 1

PICKING UP THE SLACK: SOCIAL VENTURE CREATION UNDER MARKET FAILURE CONDITIONS

2.1 Introduction

The influence of the external environment on social entrepreneurship has been considered an imperative research topic by scholars (e.g. Austin et al., 2006; Gras et al., 2011; Haugh, 2005). Understanding how the environment can enable or be detrimental to social entrepreneurship is important for both theoretical and practical purposes. Most research in social entrepreneurship has taken the environment for granted and has only studied the dynamics within social organizations. That limits comparability across studies, since findings may differ depending on the context in which each study was carried out. Therefore, understanding the environmental factors that have an influence on social entrepreneurship can help us build better theoretical models that take into account the way environmental contexts shape organizational and individual action. Understanding the influence of the environment is also important for social entrepreneurs, since knowing how the environment influences their organizations can help them to better manage such influence.

In the present study, I address the need for research concerning environmental influences on social entrepreneurship. For this purpose, I adopt a broad view of social entrepreneurship as a process that involves “the creation of new organizations (Mair & Martí, 2006, p. 37).” I specifically focus on the creation of new social (nonprofit) ventures from a market failure perspective. This perspective maintains that social ventures are created to address problems that markets and government failed to deal with effectively (Austin et al., 2006; Urbano et al., 2010).
As such, I investigate how a series of environmental factors that indicate the existence of market and government failure affect social venture creation rates.

Though the mainstream entrepreneurship literature has long studied commercial venture creation, research dealing with this topic in the social entrepreneurship literature has been rather scarce. An exception is Haugh’s (2007a) qualitative study of community-led social ventures, which specifically addresses the process of social venture creation. Although her model is made of fixed stages, the author acknowledges that this complex process will vary greatly based on individual, organizational, and environmental-level variables. Regarding environmental influences that may affect this process, Weerawardena and Sullivan Mort (2006) identify a number of factors such as the changing nature of social and business contexts, the competitiveness and complexity of the environment, and the impact of relevant government policy. Similarly, Austin and colleagues (2006) mentioned tax rates, regulations, sociocultural environment, demographics, political environment, and other macroeconomic factors. While I acknowledge that all of the suggested factors may have an influence on social venture creation, my empirical test of the market failure perspective focuses on socioeconomic conditions (income and unemployment) as indicators of market failure, and government spending on welfare as an indicator of government failure.

The social entrepreneurship literature emphasizes that a social venture can take on any legal form such as for-profit or nonprofit (Townsend & Hart, 2008). The present study was designed to explain the phenomenon of social venture creation regardless of the social venture’s legal form. However, the empirical test is carried out within the nonprofit context. By employing econometric techniques to the data extending from 2003 to 2007 I analyze the creation of nearly
29,000 nonprofits in all 88 counties in the state of Ohio, thus addressing the pressing need for rigorous quantitative research in social entrepreneurship (Short et al., 2009).

The rest of the paper is organized as follows. First, I introduce the market failure perspective from its beginnings to its application in the entrepreneurship literature. Second, I present a series of hypotheses based on the market failure perspective in social entrepreneurship. Third, I provide a description of the methodology used to test the hypotheses followed by the results obtained. Lastly, I offer a discussion of the results along with implications for research and practice.

2.2 Theory and Hypotheses Development

2.2.1 The market failure perspective

Over the years, economists have maintained that the market has the capacity to fix itself and that government intervention is needed only to facilitate the efficient functioning of the market. In fact, nonmarket mechanisms have been thought to be less efficient than the market at increasing economic welfare. Smith (1776) illustrated this by explaining the phenomenon of the “invisible hand,” in which pursuing one’s self-interest promotes the interests of society at a greater degree than when one actually intends to promote it. Though this idea has been long embraced, the notion of social entrepreneurship originated from a fundamentally different perspective. In this view, social entrepreneurs, by purposefully promoting the interests of society, are able to improve their own welfare to a greater extent than if they were to pursue only their self-interests. This contradictory idea evolved from the observation that the markets were not always able to function efficiently without some sort of intervention – the notion typically referred to as “market failure.”
According to Pigou (1932), market failure occurs when producers fail to consider social costs—the costs related to production incurred by society—into their production function. Therefore, they end up producing more, which in turn, incurs more social costs thus leading to suboptimal resource allocation. Bator defines market failure simply as the “failure of a more or less idealized system of price-market institutions to sustain “desirable” activities or to estop “undesirable” activities” (1958, p. 351). He further supports Pigou’s idea by explaining that the market is efficient only if private producers’ marginal cost resembles the true marginal cost to society of producing an extra unit of output (Bator, 1958, p. 360).

Economists also explain market failure in terms of Pareto efficiency—a market equilibrium state in which no individual can be made better off without making another individual worse off (Arrow & Debreu, 1954). In a Pareto-efficient state resource allocation is ideal. Thus, market failure occurs either when resources are underutilized so all parties could be made better off with a more efficient resource allocation, or when an economic actor improves its own utility at the expense of other actors. The common theme in explanations of market failure relates to suboptimal resource allocation. Datta-Chaudhuri (1990, p. 25), in fact, defines market failure as “the inability of a market economy to reach certain desirable outcomes in resource use.” Resource misallocations can cause a wealth of social and economic problems that need to be addressed through nonmarket mechanisms. Usually, market failure ameliorative measures come from government intervention in the form of laws, regulations, and/or taxation (Randall, 1983). Governments may also provide subsidies to companies or industries, and welfare assistance to individuals. In extreme cases, the government may also create institutions to undertake the market activities in question.
Though market failure has long been used to justify government intervention (Zerbe & McCurdy, 1999, p. 559), government intervention itself has encountered spirited advocates and tough opponents. For instance, Sidgwick (1901) believed that individuals were not always able to act in their best interest, and thus, government intervention was not only justified but necessary. On the other hand, Mill (1859) strongly opposed government interference, as he believed government was ineffective at carrying out activities that pertain to the market. In his view, government intervention is rarely justified and it tends to make matters worse. In fact, faulty government intervention, which has a negative effect on society’s welfare, has been considered another source of market failure (Kahn, 1995). Consistent with this view, McMullen (2011) disagrees with the premise that market failure originates from imperfections of the market itself, and strongly advocates that the main source is the government’s failure to establish and maintain efficient institutions, especially in least developed countries.

The literature has identified different externalities that arise from market failure such as public goods, common property resources, and monopolies. An externality is a situation in which the utility of an economic actor is affected not only by his own activities, but also by activities carried out by other actors (Randall, 1983, p. 138). Different types of externalities give rise to different types of market failure. For instance, Stiglitz (1989) focuses on externalities arising from imperfect or costly information, namely information asymmetries, as an explanation for the income differential between developed and least developed countries. One of the most prevalent consequences of most types of market failure is the creation of undesirable income distributions. Thus, the market failure perspective has implications for economic development, but also for entrepreneurship, as this situation may also create opportunities.
Entrepreneurship scholars have investigated different types of market failures as important sources of entrepreneurial opportunities. For example, Dean and McMullen (2007), relating environmental and welfare economics to the entrepreneurship perspective, proposed that environmentally relevant market failures pose opportunities for environmental entrepreneurs to profit from possible solutions. In a similar vein, Cohen and Winn (2007) propose that market failures such as externalities, imperfect pricing mechanism, and asymmetric information generate profit opportunities for sustainable entrepreneurship.

The common thread in previous conceptions of market failure as a source of entrepreneurial opportunities is the profit motive. That is, entrepreneurs seek to exploit opportunities arising from market failure in order to generate an economic profit. This is another example of Smith’s invisible hand, since entrepreneurial ventures, though motivated by self-interest, tend to remove the obstacles to transactions that prevent the economy from achieving Pareto efficient state (Dean & McMullen, 2002). Social entrepreneurship, on the contrary, rests on the premise that entrepreneurs’ motivation originates out of collective-interest (Lumpkin et al., 2011). In fact, the literature argues that market failure poses differential opportunities for social entrepreneurs than for their commercial counterparts (Austin et al., 2006), since the profit potential is not a necessary condition for social entrepreneurs to take action.

### 2.2.2 Market failure and social entrepreneurship

Even though market failure can be a source of entrepreneurial opportunities, it oftentimes goes unaddressed. One reason is that the entrepreneurial opportunities arising from those market failures not always have the profit potential required by commercial entrepreneurs or the investors who fund them. The failure of self-interested economic agents to account for the
interests and needs of future generations also makes them forgo opportunities for which benefits do not accrue in the immediate future (Sidgwick, 1901). In these cases, consumer demand for the products or services that the aforementioned opportunities may provide remains unfulfilled (Haugh, 2005). The literature suggests that social entrepreneurial ventures arise from these situations, since social entrepreneurial endeavors tend to be mission-driven rather than profit-driven (Dean and McMullen, 2007, p. 51).

Austin and colleagues (2006) proposed that market failure presents differing opportunities for commercial and social entrepreneurs. They explain that social entrepreneurial organizations arise from social market failures, which they define as situations in which commercial markets fail to meet a social need (p. 3). Taking an institutional perspective, Ferri and Urbano (2010) define social market failure as the failure of government to provide society with public goods. Thus, social entrepreneurial organizations are formed to fulfill the need for those public goods. Haugh (2005) also supports the idea that some opportunities created by market failure are only attractive to social entrepreneurs, due to the difficulty of defining societal needs and the prevalence of heterogeneous demand.

As I mention above, the most persistent consequence of market failure is the unequal or unfair distribution of society’s resources (Weimer & Vining, 1992, p. 13). Most relevant for social entrepreneurship is when market failure generates unequal income distributions. A sizable income gap gives rise to multiple social needs that cannot be profitably addressed by commercial markets. This creates a vicious cycle in which market failure leads to suboptimal resource distributions, which in turns prevents economic activity, resulting in generally low income levels and high unemployment rates. This vicious cycle is responsible for the persistent low income levels in least developed countries and their failure to catch up (Stiglitz, 1989).
Besides unequal income distributions, there are other market failure consequences that may lead to suboptimal socioeconomic conditions that, in turn, present opportunities for social entrepreneurs. For instance, monopoly power not only results in an under-provision and over-charging for goods (Bator, 1958), but also in the monopolist not having an incentive for developing more economical ways of production (Sidgwick, 1901). This situation negatively affects socioeconomic conditions by reducing consumer surplus and preventing innovation.

Similarly, information asymmetries, which originate from imperfect or costly information, prevent certain countries or regions from achieving higher levels of income and economic activity. This is because learning does not occur at the same rate in all regions, thus preventing economic agents from developing or implementing new technologies or economic arrangements (Stiglitz, 1989). Finally, other negative externalities caused by market failure may create a variety of social issues including environmental degradation, health issues, and poverty among others. These issues contribute to suboptimal socioeconomic conditions in a locality, a region, or an entire country.

Mainstream entrepreneurship literature considers socioeconomic conditions as important factors affecting new venture creation rates. Gnyawali and Fogel (1994) proposed that socioeconomic factors affect the entrepreneurs’ propensity to enterprise. That is, when socioeconomic conditions are favorable, commercial ventures are more likely to be created. A number of studies found that the strength of socioeconomic conditions, among other factors, explain the difference in commercial entrepreneurial activity across countries (e.g. Levie & Autio, 2008; Wennekers et al., 2005). Conversely, when socioeconomic conditions are not optimal, commercial entrepreneurs are not able to find opportunities or have to forgo opportunities due to lack of capital. As the “vicious circle of poverty” doctrine explains, societies
with low per capita income are bound to remain poor because they cannot provide enough capital for productive activities (Nurske, 1953).

Though commercial entrepreneurs forgo opportunities in environments characterized by suboptimal socioeconomic conditions, theforgone opportunities still need to be addressed. Social entrepreneurs are thought to be the ones willing to exploit such opportunities. As Austin and colleagues (2006) explain, commercial entrepreneurs forgo opportunities in inhospitable contexts, whereas social entrepreneurs pursue opportunities, “not despite of, but because of an inhospitable context (p. 9).” By employing the same entrepreneurial skills as their commercial counterparts, social entrepreneurs create social-value creating organizations that fill market gaps left by the private and public sectors (Haugh, 2005).

As social issues arising from suboptimal socioeconomic conditions become more salient, the need for entrepreneurial action to address them is easily acknowledged by social entrepreneurs (Perrini et al., 2010). In fact, Peredo and Chrisman (2006) explained that community based enterprises (defined as social ventures owned by community members) are usually created in response to, among other factors, economic crisis and lack of individual opportunity. In the context of nonprofit social ventures, Corbin (1999) found that social services organizations were more likely to be created in economically distressed areas, even though the services provided by a good number of those organizations were not directed toward poverty alleviation (e.g. childcare and nursing homes). Consistent with previous assertions and findings, Dorado and Ventresca (2013) argue that durable social problems entice a type of entrepreneurial engagement, directed toward social value creation and toward fueling change in relevant aspects of the environment.
In conclusion, I subscribe to the idea that market failure creates entrepreneurial opportunities and that these opportunities are different for commercial and social entrepreneurs. Most relevant to social entrepreneurship is social market failure, which leaves societal needs unaddressed. I contend that market failure, by resulting in inefficient resource allocation, negatively affects the socioeconomic conditions of a region. Suboptimal socioeconomic conditions, in turn, give rise to social value creation opportunities, which entice the creation of social ventures.

_Hypothesis 1: Suboptimal socioeconomic conditions will positively influence social venture creation._

### 2.2.3 Government failure and social entrepreneurship

The influence of government policy and procedures on new venture creation has been extensively studied in the entrepreneurship literature. Gnyawali and Fogel (1994) explained that “governments can influence the market mechanisms and make them function efficiently by removing conditions that create market imperfections (p. 46).” Removing such inefficiencies affects business opportunity by creating demand for products and services. Researchers have investigated the influence of specific variables such as tax policy, business regulations, social security policy, and government spending on start-up rates (e.g. Minniti, 2008, Sørensen, 2007; Tan, 1997). In addition, research has also explored the role of government at supporting institutions that fuel entrepreneurial activity (e.g. Stenholm et al., 2013; Sobel, 2008).

Government failure occurs when the government is unable to facilitate efficient resource allocation, sometimes even preventing the emergence of markets. In the context of social problems in least developed countries, McMullen (2011) proposes that government failure to
establish efficient politico-economic institutions is the root cause of all types of market failure, rather than an inherent flaw in the market itself. Other government policies and programs have been found helpful at enabling and ensuring the efficient functioning of markets. For instance, commodity price stabilization and carefully designed taxes and subsidies may reduce the risk facing producers resulting in higher levels of production and investment (Stiglitz, 1989).

Similarly, the provision of public goods such as roads, railways, water, and postal services also enables the existence and efficient functioning of markets (Sidgwick, 1897).

The overarching goal of government as a facilitator of markets is to maintain an equitable distribution of resources in society. As already stated, the common consequence of all types of market failure is an inefficient allocation of resources or unequal income distributions, which result in suboptimal socioeconomic conditions. The government strives to maintain an equal resource distribution through mechanisms such as taxation, which contributes not only to public works but also to income redistribution programs such as social security, unemployment insurance, and food stamps among others. I argue that government failure to ensure efficient resource allocation through its different policies and programs is another source of opportunities for social value creation.

For instance, in times of austerity the government usually starts by cutting budgets on welfare. By reducing spending on welfare, the government fails to address a variety of social issues such as poverty, hunger, healthcare, and crime. The escalation of those issues gives rise to environments in which demand for goods and services offered by commercial ventures is severely damaged, while the demand for services provided by social ventures increases. In fact, Badelt (1997) argued that the growth experienced by the nonprofit entrepreneurship sector is not
necessarily explained by increased entrepreneurial behavior, but may be explained by other factors such as decrease in government spending or the increasing role of social services.

Other studies have found that the emergence of social entrepreneurs is higher in countries where the provision of social services such as welfare is scarce (Cornwall, 1998). This indicates that more opportunities for social value creation are present in such countries. In addition, social value creation opportunities can also be found within social sectors characterized by low accessibility (defined as the perceived difficulty in addressing a social need through traditional welfare mechanisms), since such sectors are the most viable for the creation of social ventures (Zahra et al., 2008).

To sum up, an important government role is to ensure efficient resource distribution through policies and programs. In the context of this study, government failure to prevent social issues arising from unequal resource distribution also creates opportunities for social value creation. Formally stated,

_Hypothesis 2: Government failure in dealing with social issues will be positively related to social venture creation._

So far, I have explained that both social market failure and government failure entice the creation of social ventures. However, I recognize that these two phenomena are unlikely to occur in isolation. On one hand, the government may fail to ensure efficient resource distribution, while market inefficiencies may contribute to exacerbate the problem. On the other hand, the government has traditionally been expected to engage in actions that correct market failures. In fact, the market failure framework was originally presented as a normative tool to justify the need for government intervention (Zerbe & McCurdy, 1999). This perspective has been
criticized because oftentimes government intervention not only fails to address market failure, but may also exacerbate the negative consequences. This situation has been termed “double market failure” (Weimer & Vining, 1992), since government, while intending to address market failure, actually contributes to its prevalence.

There are several reasons why the government may be inefficient at addressing market failure. Poor organization, as well as information and incentive issues, may prevent the government from efficiently carrying out activities that are better performed by private markets (Mill, 1859). Consistent with this view, Stiglitz (1989) asserts that it would be unwise for the government to venture into tasks that the market itself would not risk undertaking. For example, he explains that the government would be at a disadvantage in providing credit where capital markets choose not to do so, since information asymmetries would make it difficult to screen applicants and monitor loans. Despite these drawbacks the government still tends to intervene when market failures are detected. Depending on its nature, government intervention may be appropriate for and successful at addressing market failures. Intervention is considered inappropriate when it leads to Pareto inefficiencies (Dean & McMullen, 2007, p. 65).

A situation of double market failure may constitute a vicious cycle in which neither the government nor the market are able to address resource allocation inefficiencies. This may contribute to complex social problems of the kind Dorado and Ventresca (2013) call ‘wicked’ problems. According to the authors, the ‘re-solution’ of these problems requires entrepreneurial action focusing on breaking those vicious cycles. They further explain that the persistence and apparent intractability of such problems motivates entrepreneurial engagement regardless of the entrepreneurs’ initial aspirations (i.e., economic or social aspirations). That is, complex social problems reach beyond the pool of social entrepreneurs who find sufficient market size on
recognized social needs or market failures (Austin et al., 2006), since entrepreneurs who originally sought profits may also engage in entrepreneurial action to purposefully solve these problems. This suggests that double market failure makes social problems so pervasive that opportunities for social venture creation increase exponentially. As Zahra and colleagues (2009) explained, the prevalence of social problems is an important characteristic of social opportunities which ultimately lead to the creation of social ventures.

In summary, I have described how market and government failures create opportunities for social value creation. I propose that the highest number of such opportunities arise when both government and market failures exist so that neither the market nor governments are able to ensure a fair resource distribution. As a consequence, when this double market failure is present, higher social venture creation rates should be observed.

Hypothesis 3: Government failure in dealing with social issues strengthens the positive relationship between suboptimal socioeconomic conditions and social venture creation.

2.3 Methods

2.3.1 Sample and data sources

The sample for the present study consists of all 88 counties in the state of Ohio and covers the period from 2003 to 2007. Because of the time lag incorporated in the study, and the fact that I used a moving average approach\(^1\) to operationalize the dependent variable, the effective sample consists of 352 (=88*4) county-year observations. Data were gathered from a number of secondary sources including the Internal Revenue Service, the Ohio Department of Development, the Ohio Department of Education, the Ohio Department of Taxation, the Ohio

\(^1\) The moving average was calculated by averaging the number of social ventures created in two subsequent years. For example, 2003-2004, 2004-2005, and so on.
Department of Job and Family Services, the U.S. Census Bureau, the Bureau of Economic Analysis, and the National Bureau of Economic Research.

2.3.2 Dependent variable

The dependent variable consists of the social venture creation rate in each county. This rate was calculated based on the number of new and active tax-exempt organizations in Ohio as provided in the Internal Revenue Service’s Exempt Organizations Business Master File. The variable is constructed as a ratio of new nonprofit organizations in the county to the population of active nonprofits and is expressed in percentage points. As such, it follows the so-called ecological approach to operationalizing venture creation rates, common in entrepreneurship research (e.g., Bosma et al., 2011; Anyadike-Danes et al., 2005). To calculate the creation rates in each county, individual organizations were aggregated to the county level according to the Ohio municipal, township and school board roster published by the Ohio Secretary of State. Because it takes time for the newly created organizations to obtain the tax-exempt status (six months or more), I utilized the moving average approach to approximate the number of social ventures created in a particular year that reflects such delay. The numbers I obtain are remarkably close to the estimates of nonprofits created in the state of Ohio reported by the Secretary of State.

2.3.3 Independent variables

My independent variables consist of socioeconomic conditions and government failure in dealing with social issues. I describe the operationalization in the following sections.
Socioeconomic conditions. I account for socioeconomic conditions by measuring the unemployment rate and the income level of the population in each county. Though the new venture creation literature has found that unemployment is an important influence on venture creation rates (e.g., Audretsch, 1994; Chang, et al., 2011; Evans & Leighton, 1990; Spencer & Gomez, 2004; Storey, 1991), the specific effect of unemployment has not been previously investigated in the context of social ventures. However, social entrepreneurship researchers have suggested that the creation of social entrepreneurial organizations is triggered by factors such as economic crisis and lack of individual opportunity, and that the unemployment level can represent such conditions adequately (Todaro, 2000). During economic crises, unemployment rates tend to be higher, which exacerbates social problems. As these problems become more salient, the need for entrepreneurial action to address them is easily recognized (Perrini et al., 2010). Therefore, I expect that as unemployment rates increase, more social ventures will be created. Unemployment rates for Ohio counties were obtained from the Ohio Department of Job and Family Services.

Socioeconomic conditions of a country or region can also be gauged by the level of income, which acts as an indicator of overall prosperity (Todaro, 2000). Higher levels of income translate into more funding availability, which should facilitate the creation of new businesses. This has been supported by several studies. For instance, Pennings (1982) found that organization birth rates were high in areas with greater availability of financial resources. Multiple studies have also supported the importance of income per capita as a determinant of new venture creation (e.g. Begley et al., 2005; Bull & Winter, 1991; Reynolds et al., 1995). As explained by the conceptual framework, I expect social venture creation rates to be higher when income levels are low, since low income levels in a region give rise to or exacerbate a wealth of
social problems. Income level was proxied with per capita income in constant 2004 U.S. dollars. The estimates were compiled by the Ohio Department of Development based on the information provided by the Bureau of Economic Analysis.

Government failure. In this study, I operationalize government failure by assessing the level of transfer payments in each the county. Transfer payments are a welfare mechanism of income redistribution and include cash benefits such as Social Security, unemployment insurance, and educational assistance, and in-kind benefits such as food stamps and housing assistance. Due to the wide variety of social issues that transfer payments prevent (poverty, hunger, homelessness, etc.), I expect that lower transfer payments will result in increased social problems, especially when the reduction is accompanied by lower income levels and high unemployment. Since social entrepreneurial ventures are more sensitive to changes in government procedures (Neck et al., 2009), I expect that lower transfer payments will result in higher social venture creation rates. Transfer payments were represented by the level of these payments after controlling for per capita income. The statistics were obtained from the Ohio Department of Development. This variable is “reverse-coded” so larger values of transfer payments correspond to less prevalence of government failure. As such, significant negative effect of transfer payments on social venture creation would indicate support for hypothesis 2.

2.3.4 Control variables

Control variables include a number of potential correlates of social venture creation. I controlled for the population growth of each county as it may have direct impact on the size of the need in the services that social ventures provide. Following other new venture creation
studies, I included educational attainment, measured as the “share of people with a university education among the total” (Brixy & Grotz, 2007: 304). The variable was operationalized as the percent of the adult population in a county with a bachelor’s degree or above. The numbers for both variables originated at the U.S. Census Bureau.

Another control variable consists of nonfinancial support for nonprofit organizations, since this type of support is likely to facilitate their formation. The variable was proxied by the number of college-level nonprofit management programs based in universities located within each county. Some studies have found that support from universities is highly important for new venture creation, in terms of technical and commercial support, and business advice provided to entrepreneurs (Lockett et al., 2009). Even small universities are capable of delivering meaningful support to local organizations via relatively simple modes of technical assistance (Macpherson & Ziolkowski, 2005). This variable was operationalized by counting the number of colleges that offered courses in nonprofit management, had a degree in nonprofit management, or a center to assist nonprofit organizations. The list of universities was obtained from the Ohio Department of Education, and the data regarding nonprofit programs was obtained from each university’s website.

I also controlled for county innovativeness as the ratio of county-level patents granted per 10,000 residents. Controlling for innovativeness is important because highly innovative counties may have a higher share of individuals that are at the forefront of economic and social development and thus have heightened perception of the need to pursue social venturing. Information on utility patents issued in Ohio was gathered from the National Bureau of Economic Research’s Patent Data Project. Following previous research (Anokhin, 2013), each patent was matched to an assignee’s municipality and then aggregated to the level of counties in
accordance with the Ohio municipal, township and school board roster published by the Ohio Secretary of State.

I also deemed important to control for the structure of industry in the focal county-year, as this may affect competitive landscape in the county, which may increase or lower the need in social entrepreneurs’ interventions. Following Armington and Acs (2002) and Lee and colleagues (2004), I employ *industry intensity* as a proxy for local industry structure. Industry intensity was measured as the number of establishments per 100 people. In addition, I included the distribution of the 200 largest or *flagship companies* as a control. Data for both variables come from the Ohio Department of Development. Finally, I include property sales, and income tax rates as they may impact the viability of establishing a commercial or social venture in the county. The numbers were gathered from the Ohio Department of Taxation.

2.3.5 Statistical analysis

Because the data are panel in nature (multiple county-year observations), ordinary least squares estimation is inappropriate and may produce biased results (Cohen et al., 2003). To account for the panel structure, I employed random effects estimation. This estimation allowed me to include time-invariant controls while adequately accounting for unobserved time-varying effects that may bear on social venture creation. I also corrected the estimates for the first-order autoregression in the disturbance term using methods derived from the work of Baltagi and Wu (1999).

Three models were employed to test the hypotheses. Model 1 is a baseline comparison model that includes control variables only. Model 2 includes the independent variables plus controls. Model 3 is a full model that includes all the hypothesized effects (i.e., independent
variables, interactions, and controls). Model fit is assessed by means of Wald chi-square statistics. Table 1 provides descriptive statistics and correlations. Table 2 presents the estimations of the aforementioned models.

| Insert Tables 1 and 2 about here |

### 2.4 Results

With the exception of somewhat high correlations between the distribution of flagship companies and transfer payments, none of the coefficients is above the recommended cut-off value of .70. However, to address the threat of multicollinearity, I examined the variance inflation factors. All VIFs were below the recommended cut-off value of 10 (the highest reached the level of 5.13). As such, I conclude that multicollinearity does not jeopardize valid inference in this case. According to Wald chi-square statistics, all models demonstrate acceptable fit and are statistically significant.

In terms of signs and significance levels, coefficients for control variables remain virtually unchanged across models. The results suggest that social ventures are drawn to more innovative counties with higher population growth. As expected in a sample of tax exempt organizations, the income tax rate did not affect social venture creation rates. Property taxes show a different story; I found a significant negative relationship between property tax and social venture creation across all models. A plausible explanation is that property taxes reflect housing prices in the county. Higher housing prices could reflect the well-being of the locale, suggesting that social ventures are not needed. On the other hand, the negative relationship may also reflect the fact that social ventures seek to establish their offices in counties with more favorable property tax rates. None of the other control variables reached levels of statistical significance,
suggesting that not all the factors affecting commercial venture creation influence the creation of social ventures.

Independent variables remained consistent in terms of sign, but not significance, in Models 2 and 3. One exception is the unemployment rate, which remained positively and significantly related to social venture creation rates across both models (Model 2: $\beta=1.34$, $p<.01$; Model 3: $\beta=2.09$, $p<.001$). This result provides partial support for Hypothesis 1, since, by reflecting suboptimal socioeconomic conditions, higher unemployment rates lead to higher social venture creation rates. Per capita income, the other socioeconomic conditions indicator, is also positively related to social venture creation rates, though it is only marginally significant in Model 2 and loses significance when interactions are included in Model 3 (Model 2: $\beta=0.59$, $p<.10$; Model 3: $\beta=0.60$, n.s.). As such, Hypothesis 1 remains only partially supported.

Transfer payments exhibit a negative relationship to subsequent social venture creation rates in both models (Model 2: $\beta=-1.37$, $p<.10$; Model 3: $\beta=-1.82$, $p<.05$). This relationship becomes statistically significant after including the interaction effects, thus justifying the presence of such interactions in the model. The result confirms my expectation that a decrease in transfer payments is a sign of government failure to address social issues, which in turn, increases social venture creation rates. This result lends empirical support to Hypothesis 2.

Consistent with the results regarding socioeconomic conditions indicators, the interaction between transfer payments and income per capita did not reach statistical significance. However, the interaction effect of transfer payments and unemployment is positively and significantly related to social venture creation rates ($\beta=1.42$, $p<.01$). To ease interpretation of this result, I plot the interaction in Figure 1. As expected, the figure shows that the highest social venture creation rates occur when unemployment rates are high and transfer payments are low, that is, when both
market and government failures are present. Hypotheses 3 predicted that low transfer payments would exacerbate the negative relationship between socioeconomic conditions and social venture creation. Since higher unemployment represents suboptimal socioeconomic conditions, I would expect that low transfer payments would exacerbate the positive relationship between unemployment and social venture creation rates. Figure 1, however, shows the opposite effect; that is, high transfer payments make the positive relationship stronger. Nevertheless, social venture creation rates are still higher under conditions of low transfer payments, at all levels of unemployment. This result suggest that government failure is a stronger determinant of social venture creation, so that when it is present social ventures emerge regardless of socioeconomic conditions.

2.5 Discussion

The present paper advances the study of environmental influences by relying on the market failure perspective to explain social venture creation rates. Considering poor socioeconomic conditions as consequences of market failure, I found partial support for my contention that these conditions increase the rates of social venture creation. Similarly, I found that government failure to address social issues is a strong predictor of social venture creation. Furthermore, I found that when government failure exists (as indicated by low transfer payments), social venture creation rates tend to be high regardless of the socioeconomic conditions of the locale.

The findings lend support to previous research regarding the role of market failure as a source of social entrepreneurial opportunities and the importance of government actions in
influencing social venture creation (e.g., Badelt, 1997; Austin et al., 2006; Urbano et al. 2010). The persistence of high rates of social venture creation under low transfer payments is also consistent with claims that government failure is the likely root cause of other types of market failure (McMullen, 2011). That is, if social value creation opportunities originate under market and government failure conditions, then I would expect that low levels of either phenomenon would result in lower social venture creation rates. The results, however, show that social venture creation rates remain high when government failure is present, even when the signs of market failure (i.e., high unemployment rates) are not present.

In a general sense, the present study contributes to the social entrepreneurship literature by tackling two major needs in the field. First, I investigate the influence of environmental influences on social entrepreneurship, which has been considered an imperative research topic by scholars (e.g., Austin et al., 2006; Gras et al., 2011; Haugh, 2005, 2007b). From a market failure perspective, I uncover the environmental conditions under which the creation of social ventures is more viable. Investigating social venture creation constitutes a contribution in and of itself, since I found that the study of this phenomenon is limited in the literature. Second, I also address the pressing need for rigorous quantitative research in the social entrepreneurship arena (Short et al., 2009). My quantitative longitudinal study lends support to previous theoretical claims regarding market failure and generates new insights for the study of social venture creation.

The literature has suggested that social entrepreneurship is strongly influenced by environmental dynamics and that it is important for social entrepreneurs to understand and manage such influence (Weerawardena & Sullivan Mort, 2006). The present study is one step forward toward understanding the environment surrounding social ventures. If social entrepreneurs are aware of the environment in which they plan to operate, they will be better able
to address the potential problems that the environment may pose that could prevent them from successfully starting their social venture. Similarly, they will be better able to fully take advantage of the opportunities that become available. As Ferri and Urbano (2010, p. 5) note “social entrepreneurs are most effective when they create entrepreneurial organizations which interact with their environment in an innovative way.”

The present study also poses some implications for government policy. The results emphasize the importance of forecasting rates of social venture creation in order to provide them with the necessary support and infrastructure (Haugh, 2005, p. 5). Thus, the government could implement programs that anticipate needs and provide financial and non-financial support for the creation of social ventures. I have shown that social entrepreneurs respond to precarious environmental conditions by creating social ventures to address social problems. Assuming that social ventures are effective at addressing social needs that originate from market failure, investing in them may prove more beneficial than modifying other government policies or procedures (e.g., increasing welfare budgets, modifying tax rates, etc.). Additionally, collaboration between government and social ventures could be highly beneficial for society. Since both government and social ventures seek to address market failure, the social impact from inter-sectorial collaborations is likely to be greater than the sum of the social impact from the two sectors. Effective support for social ventures and potential collaboration would likely address the problem of governments not being efficient at carrying out certain activities due to information and incentive issues, as has been shown in some studies (e.g., Leonard, 2002).
2.5.1 Limitations and future research

Despite its contributions to the social entrepreneurship literature, this study has some limitations that could be addressed in future research. First, limiting the empirical test to nonprofit organizations may prevent the generalizability of the results to other kinds of social ventures. Thus, a clear avenue for future research is to replicate my results with a sample containing all types of social entrepreneurial organizations such as hybrids and for-profits.

Second, for the empirical test, I assume that all nonprofits are entrepreneurial, which may not be the case in practice. I maintain that the future entrepreneurialism of the social organizations is not relevant for this study, since I adopt the view that the very creation of an organization constitutes an entrepreneurial act (Gardner, 1989; Mair & Martí, 2006). Nevertheless, research would benefit from improvements in the operationalization of social entrepreneurship within the nonprofit sector. Toward this purpose, future studies could provide and test valid criteria to differentiate entrepreneurial nonprofits from their non-entrepreneurial counterparts both ex-post and ex-ante.

Third, the data is limited to one state within the United States. Although the State of Ohio is representative of the entire country on key dimensions and has even been used as an adequate comparison unit to foreign countries (e.g. Braunerhjelm & Carlsson, 1999; Carlsson, 2002), a fruitful avenue of future research is reproducing the results at the national and international levels.

Lastly, I tested a handful of environmental factors that may influence social venture creation. However, acknowledging that it is impossible to examine everything, researchers have advocated the inclusion of the environmental elements most relevant to the issues or organizations being studied (Castrogiovanni, 1991, p. 543). The market failure perspective in social entrepreneurship suggests that the variables included in my framework are the ones likely
to exert the strongest influence on social venture creation. Regardless of the relevance of the variables I include in the analysis, research would benefit from studies that uncover the influence of other environmental dynamics related to social venture creation and other social entrepreneurship phenomena.
Table 1. Descriptive statistics and correlations

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† p<.10, *p<.05, **p<.01, ***p<.001
Figure 1. Interaction of transfer payments and unemployment rate
ESSAY 2
SYMBIOSIS OR COMPETITION? THE IMPACT OF SOCIAL VENTURE CREATION ON COMMERCIAL VENTURE CREATION

3.1 Introduction

Publications with a focus on social entrepreneurship have increased significantly in recent years, especially in entrepreneurship and management outlets (Short, Moss, & Lumpkin, 2009). Organizations such as Ashoka and the Skoll foundation have fueled and rewarded the creation of social ventures. The prevalence of social entrepreneurship is such that some claim that we are moving toward a new paradigm (Nicholls, 2010). Among the many topics addressed in this area, investigations of the impact of social on commercial ventures remain scarce. Some researchers suggest that social ventures are beneficial for the creation of commercial ventures, since they are created for the betterment of society. Some studies have tested this relationship and have found it to be positive (e.g. Estrin et al., 2011). However, there are no empirical accounts for the mechanism through which social ventures enhance commercial venture creation.

Following an ecological perspective (Aldrich, 1990; Hannan & Freeman, 1977), I first investigate whether the creation of social ventures enhances or undermines the creation of commercial ventures. Proponents of population ecology have encouraged the study of organizational founding rates in entrepreneurship, since it provides a different lens for investigating the dynamics of organizational creation. Population ecology explains that the environment is composed of different organizational populations. A population is defined as a group of organizations that share similar characteristics and utilize similar sets of resources (Hannan & Freeman, 1977). The founding rates of each organizational population are influenced
by three ecological processes— intra-population, inter-population, and institutional (Aldrich, 1990). Previous studies have found a stable pattern regarding intra-population processes across organizational populations. For this reason, I do not focus on those processes, but rather include them as controls in the empirical analysis.

My main focus in the present study is on inter-population processes. That is, I closely examine the dynamics between two organizational populations, namely commercial and social ventures. The population of commercial ventures is composed of organizations that seek primarily economic gains. The population of social ventures is composed of organizations created to meet social needs or to exploit opportunities for social value creation (Lumpkin, Moss, Gras, Kato & Amezcua, 2011; Zahra, Gedajlovic, Neubaum & Shulman, 2009). It is worth noting that social ventures can be created under different legal forms including non-profit, for-profit and, hybrid structures (Dees & Anderson, 2003). For the purpose of the present study, I focus on the population of nonprofit social ventures.

In this study, I adopt the view of entrepreneurship as the “creation of new organizations (Gartner, 1989, p. 62);” as such, I examine the rates of successful venture creation for both social and commercial organizations. I hypothesize and test a direct effect of social venture creation on commercial venture creation, and expect this relationship to be negative. My main premise is that social and commercial ventures compete for similar resources at the time of founding, regardless of their ultimate goal. That is, creating social ventures may absorb resources necessary for the creation of commercial ventures, thus undermining their start-up rates. In the population ecology literature this is known as diffuse competition since the two populations compete for some of the same resources at founding but not all.
Previous research in social entrepreneurship has suggested that social ventures create value for society (Moss, Lumpkin, & Short, 2008; Weerawardena & Sullivan Mort, 2006). Thus, it is anticipated that the benefits that social ventures provide extend to commercial ventures, since these organizations are integral part of society. For example, by alleviating social issues, social ventures may create better environments for commercial start-ups. This type of symbiotic relationship has been found by Estrin and colleagues (2011) who found that social entrepreneurial activity is positively related to commercial entrepreneurial activity across countries. However, the authors do not test the mechanism through which social entrepreneurship enhances commercial entrepreneurial activity. Following the social entrepreneurship and new venture creation literatures, I propose that the mechanism through which social ventures may enhance the creation of commercial ventures is social value creation. Social value is created when the overall utility of all members of society increases (Santos, 2009). Thus, I test how social ventures create better environments in which commercial ventures can be created.

Finally, I also propose that when the social value created by social ventures is taken into account, the competitive relationship with commercial ventures is reduced. This is consistent with population ecology arguments that institutional processes affect not only founding rates but also the ecological dynamics between organizational populations (Aldrich, 1990). Institutional processes refer to aspects of the external environment such as government regulations, socioeconomic conditions, and the cultural environment in which an organizational population exists. As such, the better environments created by social ventures positively influence commercial venture creation. In addition, those environments reduce the competition between the two organizational populations.
Following population ecology findings that stronger effects are found at local rather than diffuse geographical locations (e.g. Baum & Oliver, 1996); I perform the empirical test at the county-level. The data consists of a panel of all 88 counties in the state of Ohio that covers the period from 2000 to 2006. Data were gathered from a variety of secondary sources such as the Ohio Department of Development and the Internal Revenue Service, among others. I employ econometric techniques and appropriate time lags to account for the panel nature of the data.

The remainder of this essay is organized as follows. First, I provide an overview of the ecological perspective explaining the creation of organizations and explain why a competitive direct effect may exist between the two populations. Second, I make the case for a symbiotic relationship between these two populations. I present an overview of the literature on social value creation and explain how social ventures improve the wellbeing of society. I also explain how improved society’s well-being enhances commercial venture creation rates, as well as how accounting for this effect weakens the negative relationship hypothesized above. Next, I provide a description of the methodology and the results of the analysis. Finally, I offer a discussion of the contributions and limitation of this study.

3.2 Competition: A Population Ecology Perspective

“The population-ecology perspective seeks to understand how environmental conditions and interactions within and between populations shape the diversity of organizations in society (Hannan & Freeman, 1987, p. 912).” Proponents of population ecology have emphasized the use of founding rates to understand the evolution of different organizational forms. This perspective uses the population of organizations as the unit of analysis, as opposed to the individual firm, because looking at founding rates within populations is a good way to account for the evolution
and diversity of the organizations of interest. Population ecologists also consider longer time frames than organizational- and individual-level perspectives on organizational creation, since the evolution of organizations is better appreciated in the long-term. Thus, population ecology is an appropriate lens for studying the evolution of commercial and social organizational populations. With the increasing attention given to social entrepreneurship in research and practice, it is timely to study the speed at which social organizations are evolving and the effect of their evolution on other organizational forms.

Rooted in sociology, population ecology seeks to understand social change from an angle that analyzes the addition of new actors and the demise of old ones (Hannan & Freeman, 1987). Aldrich (1990) strongly advocated the use of a population ecology perspective in entrepreneurship research as a way to uncover interesting organizational founding phenomena that cannot be devised by looking at individual entrepreneurs or organizations. He states that this perspective is “inherently dynamic in focus, emphasizes the many scales at which social action occurs, and leads to interesting research hypotheses (p. 8).” Population ecology is particularly relevant in entrepreneurship research, which has long been concerned with the creation of new ventures as evidence of successful entrepreneurship (Baum & Singh, 1994; Tucker, Singh & Meinhard, 1990).

3.2.1 Organizational populations and carrying capacities

The main idea of the ecological perspective is that the environment has finite resources for which organizations compete. Consequently, there exists an environmental carrying capacity which sets a limit on the size of organizational populations, also known as population density (Hannan & Freeman, 1989). Though finite, environmental carrying capacities are not fixed,
since they respond to a variety of exogenous factors. For example, increasing demand for environmentally friendly products has increased the carrying capacity for organizational populations related to the production and sales of such products. Previous studies taking a population ecology approach have accounted for changes in carrying capacities caused by exogenous shocks by controlling for the historical time period in which foundings for a population happen (e.g. Tucker et al., 1990; Hannan & Freeman, 1989).

An organizational population consists of a group of organizations that share similar characteristics and compete for similar resources (Hannan & Freeman, 1989). In the present study, I focus on the dynamics between two organizational populations: commercial and social ventures. The population of commercial ventures consists of those organizations that engage in profitable operations with the purpose of generating private gains (Austin, Stevenson & Wei-Skillern, 2006). Commercial ventures are generally created based on self-focused desires such as wealth accumulation or self-employment, whereas social ventures are created based on collective-focused aspirations such as wealth giving or community development (Lumpkin et al., 2011, p. 4). Though, it has been argued that commercial ventures also provide collateral social value (Schramm, 2010), their main goal is to produce economic gains.

In contrast, the population of social ventures is comprised of those organizations that are created for the fulfillment of a social mission (Zahra et al., 2009). In other words, social ventures are created to exploit opportunities for social value creation. Lumpkin and colleagues (2011) explain that social value creation, though subjective and difficult to measure, has some underlying characteristics that differentiate it from purely economic value creation. First, they emphasize that social value creation is a positive externality since it does not accrue directly to the entrepreneur or stockholders. Additionally, social value creation is a deliberately generated
outcome. That is, to be considered a social venture, organizations need to be built around a specific social mission, without which they would not exist.

Social ventures can be created under different legal forms or structures including nonprofit and for-profit forms, and hybrid, joint ventures, and subsidiary structures (Kistruck & Beamish, 2010; Townsend & Hart, 2008). For this study, the choice of the population of social ventures is based on their legal form. As mentioned above, I focus exclusively on the population of nonprofit social ventures. These organizations possess all the characteristics of social ventures as they are created to address a variety of social needs, while sharing the same legal form.

3.2.2 Inter-Population Processes

Population ecologists explain that organizational foundings in a population are affected by three processes: intra-population, inter-population, and institutional. Intra-population processes pertain to the dynamics within a single population and relate to how the number of existing organizations, previous foundings and disbandings affect the founding rates in such population (Hannan & Freeman, 1987). Inter-population processes refer to the relationships among different organizational populations’ founding rates. Population ecology suggests different types of relationships including commensalism, symbiosis, and different types of competition. Finally, institutional processes refer to aspects of the external environment that affect founding rates. Aldrich (1990) presents the institutional processes that have been found to influence organizational founding rates; these include state policies and political factors, spatial location of the organizational population, and cultural factors.

In the present study, I focus on the inter-population processes between social and commercial ventures. It is worth noticing that most population ecology studies investigating
inter-population dynamics have considered industries or sub-industries as their organizational populations of interest. One reason is that competition is likely to be more intense within industries, for example among garment workers’ unions or services workers’ unions than among the whole population of unions (Hannan & Freeman, 1987, p. 941). I consider two broad sectors as the populations of interest, as such, inter-population effects may be weaker than the effects usually found when examining specific industries. However, I still expect those effects to be present. Though I could divide the populations into different industries to capture stronger effects, there would not be a one-to-one industry match in the commercial and social sectors. Therefore, I would not be able to study the inter-population processes between all social and commercial organizations. For example, within the nonprofit social sector we find the social services industry for which there is no clear match in the commercial for-profit sector.

Paarlberg and Varda (2009) explain that the community carrying capacity of each population is not only determined by the resources available in the community, but it is also affected by the interrelationships among populations. Researchers taking a population ecology perspective have mainly focused on competitive relationships between populations (Aldrich, 1990, p. 16). That is, their main interest has been on how one population diminished founding rates or increased disbanding of another population. A few studies, however, have found positive inter-population effects, in which increased foundings in one population help increase foundings in the other (e.g. Audia et al., 2006; Mezias & Kuperman, 1999).

Due to the diversity of organizational populations, the relationship between populations will vary depending on the populations being studied. Based on previous findings, Aldrich (1990) summarizes six possible inter-population relationships. The first type is called full competition and refers to populations negatively affecting each other’s founding rates. The
second is known as partial competition, since the increase in foundings in population A negatively affects foundings of population B, but foundings in population B do not have an effect on population A. The third type is called predatory competition and refers to a situation in which population A has a positive effect on the founding rate of population B, but population B poses a negative effect on population A’s founding rate. A fourth process, known as neutrality, refers to populations that co-exist in the environment without affecting each other. The fifth process is commensalism and happens when population A has a positive effect on population B, but population B has no effect on population A. The last type of inter-population relationship is known as symbiosis and it occurs when both populations benefit each other.

Symbiosis or commensalism occurs based on supplementary similarities or complementary differences (Hawley, 1950). Supplementary similarities happen, for instance, when two organizational populations enhance each other’s legitimacy. Foundings in one population may also signal that the time is ripe for organizational creation in general, leading to an increase in foundings on other related populations (Hannan & Freeman, 1987). Thus, the increase in founding rates in one population increases the legitimacy of the other, which in turn, leads to increased founding rates. Complementary differences happen when organizational populations have different capabilities that are beneficial for the other. For example, cable providers and manufactures of television sets may complement each other. Competition usually happens due to resources and demand overlap between populations. As such, new organizational foundings in one population may exhaust resource mobilization for both populations, which would lead to a decrease in subsequent foundings (Hannan & Freeman, 1987).

In this essay, I examine the inter-relationships between the population of social ventures and the population of commercial ventures. In the interest of parsimony, however, I examine
such dynamics from the perspective of social ventures. In other words, I investigate the effect of social venture creation rates on commercial venture creation rates, but not the effect of commercial venture creation rates on social venture creation. I acknowledge this as a limitation of my study that could be addressed in future research. For the purposes of this study, I call a negative effect of social venture creation rates on commercial ones competition, and the positive relationship symbiosis. Depending on the effect that commercial ventures exert on social ventures, competition could be in one of the forms explained above, and symbiosis may be a commensalism relationship instead.

3.2.3 The direct impact of social venture creation on commercial venture creation

Regarding inter-population processes, I expect that, at the time of founding, the two populations of interest will compete for resources. For instance, if a social venture is created at a certain time, it may take resources away from a commercial venture that could be formed at a later time. With this, I do not imply that a one to one relationship in terms of the resources mobilized exists; instead, I propose that a degree of overlap in the resources required for the creation of social and commercial ventures exists. Population ecology, in fact, holds that competition among organizational populations is based on similarities of resource requirements (Hannan & Freeman, 1989). Populations that have greater resource overlap, also have greater potential for competition.

There are a number of reasons to believe that foundings in the population of social ventures exhausts resources necessary for the creation of commercial ventures. Previous research investigating cross-sector ecological dynamics has suggested that nonprofit status acts as a distinctive competitive advantage for the acquisition of resources and community support (Baum
& Oliver, 1996). Therefore, nonprofit social start-ups may prevail over their commercial counterparts. This phenomenon is exacerbated by the recent trend of pushing nonprofit organizations to engage in commercial activity to fund their social mission. Nonprofits that traditionally relied on philanthropic donations and grants are adding commercial activities, which oftentimes are not related to their overarching mission. This situation places them in direct competition with commercial organizations since a greater degree of resource overlap exists between nonprofit social ventures with commercial activities and purely commercial organizations.

In terms of resources necessary for organizational creation, social and commercial ventures may experience overlap mainly in financial and human capital. Traditional sources of financial capital for social ventures include donations, government and foundation grants, and corporate sponsorships (Dees, 1998). At first sight, social and commercial organizations should not have to compete for financial capital, since the funding sources mentioned are not applicable to commercial organizations. However, the financial capital fueled into the nonprofit social sector could have been used for funding commercial organizations. This is a form of diffuse competition since the links between the two populations’ resource requirements are not apparent. For example, a corporation could use their money to fund their own corporate entrepreneurial venture instead of providing sponsorship for a social venture.

Competition for human capital is also a form of diffuse competition, since founding entrepreneurs for both types of organizations possess similar characteristics. Previous research on social ventures has emphasized that, similar to commercial entrepreneurs, social entrepreneurs need the entrepreneurial and business skills necessary for successful venture creation (Haugh, 2007a; Peredo & Chrisman, 2006). Therefore, when entrepreneurs choose to
form social ventures, they are taken away from the pool of entrepreneurs that could form commercial ventures, thus reducing commercial venture creation rates.

Human capital also refers to potential employees that both populations wish to attract. For instance, both types of organizations may seek college graduates for their managerial positions, thus competing with each other in a diffuse manner (Aldrich, 1990). In this aspect, nonprofit social organizations may possess an advantage, since it has been reported that employees of nonprofit organizations value job quality more and wages less than commercial employees (DiMaggio & Anheier, 1990). Furthermore, nonprofit social venture have the advantage of being able to attract volunteer labor. Therefore, acquiring human capital is more affordable for these organizations, which may entice entrepreneurs to pursue social, instead of commercial, venture creation opportunities.

Another reason why social ventures may suppress the creation rates of commercial ventures is that, as Nicholls (2010) puts it, social entrepreneurship is becoming a new paradigm. Therefore, it is possible that customers and investors alike are increasingly expecting new businesses to pursue social goals instead of or in addition to the traditional economic goals. This phenomenon may slowly lead social ventures to become the only acceptable organizational form. In fact, previous research explains that society expects that entrepreneurs do not profit from certain types of services (Dees & Anderson, 2003), therefore organizations established as nonprofit have more legitimacy and are more likely to be founded. Some examples are organizations in the health care, social services, community development, and education industries. In addition, the trend for corporations to engage in social responsibility and for nonprofits to engage in commercial activities could also be taken as indicators of this paradigm shift.
Pertaining specifically to the population of nonprofit social ventures, researchers have explained that these organizations are likely to prevail over commercial organizations for a variety of reasons. Some authors have stated that nonprofit organizations have an unfair advantage, which originates from tax exemptions; hence, they argue that as the population of nonprofit social organizations expands, purely commercial organizations (especially small firms) are crowded out of the market (Bennett & DiLorenzo, 1988). Other researchers explain that nonprofit social ventures may prevail in some industries because they are able to provide better services because they are not preoccupied with making money, whereas the commercial organizations oftentimes have to downgrade the quality of their services in order to generate a profit (Baum & Oliver, 1996).

Given the arguments presented above, I argue that competition for resources and customers at the time of founding will prevail between social and commercial start-ups. That is, the creation of social ventures would absorb some of the resources destined for commercial ventures, thus undermining their creation rates.

*Hypothesis 1: Social venture creation rates are negatively associated with commercial venture creation rates.*

### 3.3 Symbiosis through Social Value Creation

Contrary to the competitive effect hypothesized above, social entrepreneurship scholars have argued for a symbiotic relationship between social and commercial ventures. One reason is that social ventures have been found to engage in collaborations with commercial ventures to improve the wellbeing of the communities where they operate (Domenico, Tracey & Haugh, 2009). By improving the wellbeing of their communities, social ventures may be able to benefit
commercial ones. Some authors have argued for this positive relationship at a more macro-level without taking into account explicit collaborations between the two types of organizations. They argue that social entrepreneurship increases social capital, which is necessary for the creation of commercial ventures (Estrin et al., 2011).

The above arguments suggest that, if a positive effect exists between social and commercial venture creation, this effect would be indirectly realized through certain mechanism. I propose that such mechanism is social value creation, which is well-accepted as the main outcome of social ventures (e.g. Mair & Marti, 2006; Weerawardena & Sullivan Mort, 2006; Zahra et al., 2009). The main idea is that, since social ventures emphasize value creation (Santos, 2009), they will benefit all members of society, including commercial ventures. Once sufficient value has been created, commercial ventures will be established to appropriate such value. That is, by actively creating value for society, social ventures also create environments that entice commercial venture creation. This positive effect may, in turn, weaken or counter the negative effect already hypothesized. That is, the positive effect derived from the social value created by social ventures may reduce the negative effect that arises from social ventures utilizing resources that could have been destined for commercial ventures.

In this section, I describe the possible symbiotic mechanism between social and commercial ventures. First, following the social entrepreneurship literature, I focus on how social ventures create value that improves the overall wellbeing of society in the geographical area in which they operate. Next, I explain how the improved well-being of society creates opportunities for value appropriation that entice the creation of commercial ventures. I conclude by explaining how the proposed symbiotic mechanism weakens the competitive relationship between social and commercial ventures.
3.3.1 Social value creation

It is well-accepted among social entrepreneurship scholars that social entrepreneurs act on opportunities to solve social problems or address social needs. As explained above, similar to commercial entrepreneurs, social entrepreneurs respond to opportunities by mobilizing resources. The difference, in this case, is that social entrepreneurs mobilize resources in response to those social problems or needs rather than market criteria (Alvord, Brown & Letts, 2004). As such, social value creation is considered a feature unique to social entrepreneurship (Mort, Weerawardena & Carnegie, 2003; Peredo & Mclean, 2006; Weerawardena & Mort, 2006).

For social entrepreneurs, social value creation is a purposeful outcome of their venturing activities. This is different from the collateral social value that commercial ventures generate while serving their own purposes; a notion that Smith (1976) calls “the invisible hand.” Some authors suggest that the concept of embeddedness explains how the social mission is integral part of social ventures (Mair & Marti, 2006). That is, social value creation is a purposeful outcome embedded in social ventures’ concrete and enduring relationships; consequently, it affects their behavior and decision making (Dacin, Ventresca, & Beal, 1999; Gnyawali & Madhavan, 2001; Granovetter, 1985). This means that whatever the social mission is, it will serve to guide a social venture’s actions.

Some scholars argue that most social ventures seek to create social value that benefits actors beyond those directly served by the social mission (Dees & Anderson, 2003). For instance, a social venture providing training and advice for the unemployed may benefit their intended population by helping them find employment. This, in turn, may help society at large by providing better-skilled labor force for companies, and by avoiding a wealth of problems derived from the lack of income of the unemployed. Previous research also suggests that the extent of the
social value created would depend on the types of social entrepreneurs. Thus, Social Bricoleurs focus on creating value at the local level, Social Constructionists create value in larger regions or at the country-level, and Social Engineers seek to have an impact across national boundaries (Zahra et al., 2009).

Though it is well-accepted that social value creation is a distinctive feature of social entrepreneurship, there is less agreement on what social value actually is. The different conceptualizations of social value seem to originate from the fact that researchers focus on “values” upheld by societies which are necessarily context-dependent, rather than focusing on the concept of “value.” For instance, some societies may value preserving their cultural roots more than they value economic development. To this point, Young (2006) explains that social value has five characteristics that make it difficult to assess: 1) social value is subjective, 2) social value is negotiated among stakeholders, 3) social value is contingent and open to reappraisal, 4) social value brings together incommensurable elements which cannot easily be aggregated within a single metric, and 5) values are inseparable when it comes to social activity.

In an attempt to stay away from the concept of “values,” some scholars have defined social value creation as the fulfillment of basic, long-standing, and urgent needs that are not being met by other entities; such needs include food, shelter, medical service and education (Certo & Miller, 2008; Young, 2006). Accordingly, most social entrepreneurship research emphasizes that social ventures are created to serve the needs of disadvantaged groups. However, it could be argued that social value can be created for all constituents of society, disadvantaged or not (Lumpkin et al., 2011). To solve the debate of what constitutes social value and what does not, Santos (2009) suggests that social entrepreneurship should not be “about upholding particular ‘values’ but about the creation of value (p.6).” Such value is created when
the utility of all society’s members increases after accounting for resources employed for the value creation activity. This definition of social value creation, thus, includes any utility generated for all members of society, as opposed to the utility generated for the venture itself. In fact, one of the characteristics of social value creation is that it constitutes a positive externality (Lumpkin et al., 2011). In other words, it is created for the benefit of individuals external to the organization.

In this study, I follow the notion that social value creation aims to improve the well-being of society as a whole (Lumpkin et al., 2011). I focus on social value creation accrued to specific geographical areas in which the social ventures operate. As such, I consider different aspects of social value related to the economy and quality of life of the region. I look at economic value creation that benefits the community in which the social venture operates, not at the economic value created for the benefit of the venture itself. Economic value is included because it is inherently social, since better economic conditions improve the wellbeing of society through better resource allocation (Santos, 2009). I also assess the value created in terms of quality of life aspects such as education, health, shelter, infrastructure, and public safety.

### 3.3.2 Social ventures promoting society’s wellbeing

Extant social entrepreneurship research implies that the creation of social ventures should enhance the creation of commercial ventures. Some authors have argued that explicit cross-sector collaborations have the ability to reconcile the efficient functioning of markets with the wellbeing of communities (Domenico et al., 2009). Thus, by working together, commercial and social ventures can improve the community and the economy, which in turn, may lead to more commercial venture creation. Aside from cross-sector collaborations, other studies have found
that the creation of community-led social ventures helped communities at exploiting their resources more effectively. This, in turn, provided local entrepreneurs with the skills necessary to start a business, which resulted in the creation of commercial ventures (Peredo & Chrisman, 2006). A recent study (Estrin et al., 2011) found that countries that had higher levels of social entrepreneurial activity also had high levels of commercial entrepreneurial activity. The authors argued that social entrepreneurship created the social capital necessary for establishing commercial ventures.

As the studies mentioned above suggest, social ventures, in general, do not entice commercial venture creation in a direct manner, but they do so indirectly by creating social value for all members of society. Researchers suggest that when sufficient social value accumulates in a certain area, a community or region improves (Meyskens, Casrud & Cardozo, 2010). That is, by addressing persistent social needs, social ventures create better environments in which commercial ventures can thrive. Therefore, I first uncover the direct effect of social entrepreneurship on the wellbeing of society. If in fact, social ventures improve society’s wellbeing, then they would be creating environments replete with value appropriation opportunities for commercial ventures. I examine the latter effect in the next section.

Santos (2009) explains that social ventures maximize on value creation and satisfice on value appropriation. That is, these ventures only capture enough value to fulfill their social mission and sustain their operations. On the other hand, commercial ventures maximize value appropriation and satisfice on value creation. These ventures only create collateral social value. Therefore, it could be argued that the populations of social and commercial ventures are almost not overlapping in terms of their ultimate goal. In fact, extant research argues that social ventures address social needs that commercial ventures (and the government) have failed to address.
(Meyskens et al., 2010). In so doing, social ventures create complementary demand for commercial ventures and free up resources necessary for their creation, such as financial and human capital. When organizations are not overlapping and complement each other in such ways, the degree of mutualism or symbiosis increases (Baum & Singh, 1994).

Consistent with the above arguments, researchers explain that nonprofit social ventures attempt to satisfy social needs in a different way or as a complement of both commercial and governmental organizations (Bahmani, Galindo & Mendez, 2012). Thus, they play a crucial role in improving the wellbeing of society. In addition, due to their complementary nature, social ventures should produce value above and beyond the value created by government and the collateral social value produced by commercial ventures. It has been argued that the value created by social ventures can be observed on significant changes in the social, political, and economic contexts of disadvantaged groups (Alvord et al., 2004). As already stated, I subscribe to the idea that social value is created for society as whole and not only for specific groups within it. Therefore, I observe social value creation through changes in the economic conditions of a small geographical area (i.e. the county) and the quality of life of its constituents.

Social ventures tend to create and appropriate only enough economic value to sustain their operations (Austin et al., 2006). This refers to the fact that social ventures satisfice on value appropriation (Santos, 2009). In this study, I refer to economic value created for the benefit of society and not of a particular organization. I follow the idea that economic value is a type of social value since it serves to improve the wellbeing of society. In fact, social venturing activities aimed at economic transformation are very common (Alvord et al., 2004, p. 278). A prime example is the Grameen Bank, whose purpose is to improve the wellbeing of people in Bangladesh by providing micro-credits to individuals who lack the land and the credit history to
secure a regular bank loan. By providing the financial capital these people needed to prosper, Grameen Bank not only improved the wellbeing of the individuals who received a loan, but also improved the wellbeing of the Bangladeshi community as a whole (Dees & Anderson, 2003, p. 5). A number of studies have also established the link between social venturing activity and improved economic conditions in a geographical area (e.g. Bahmani et al., 2012; Peredo & Chrisman, 2006; Squazzoni, 2009).

Social ventures also improve the community’s quality of life, which I mentioned includes several aspects such as education, health, and public safety. For instance, a common strategy among social ventures is to employ disadvantaged individuals such as disabled individuals, ex-convicts, or homeless people (Dees & Anderson, 2003, p.4). By having the opportunity to work, these individuals not only improve their income levels but also increase their human capital by gaining work experience. In addition, being employed by the social venture may eventually lead to better employment opportunities which would afford them proper healthcare, shelter, and even education. Employing disadvantaged individuals also improves society’s well-being since it prevents major social problems that originate from the lack of a source of income, including hunger, homelessness, and crime. Other examples that improve the quality of life of a community can be found in the literature. One of them is CAMFED, which improves society’s wellbeing by providing access to education for thousands of young women in sub-Saharan Africa (Young, 2006). Another good example is Aravind, which provides affordable eye care in India, thus reducing people’s chances of becoming blind.

As can be seen from the examples above, most studies emphasize the benefits of social ventures by focusing on the specific aspect that each venture’s social mission addresses. For instance, a school creates value through improved education, while a microfinance organization
creates value by improving the economy. In this paper, I look at the aggregate number of ventures within a geographical area; consequently, I assess how those ventures improve the overall wellbeing of their respective regions. By looking at the aggregate social value created, I account for situations in which an individual social venture creates one kind of social value while harming other types of social value, a situation that has been strongly criticized in the literature (Cho, 2006). Thus, I do not have a one to one relationship (type of venture to type of social value) but the overall effect of the social ventures created on the community’s wellbeing.

Hypothesis 2: Social venture creation is positively associated with society’s wellbeing.

3.3.3 Society’s wellbeing and commercial venture creation

The new venture creation literature has found that environmental conditions are as important in determining commercial venture creation as the entrepreneurs themselves. In fact, researchers view the creation of a new venture as the outcome of a complex social process in which individuals interact with their environments to establish their ventures (Gartner, 1985; Steyaert & Katz, 2004). In general, better environments have been found more conductive of commercial venture creation. These environments have been called “munificent environments” since they are characterized by the existence of opportunities and the availability of resources for commercial ventures (Aldrich, 1979; Dess & Beard, 1984; Pfeffer & Salancik, 1978). In fact, the population ecology literature also suggests that environmental munificence is an important determinant of organizational births (Hannan & Freeman, 1984). The munificence of the environment is related to the concept of carrying capacity, a term used by population ecologists to describe the level of resources available in the environment that determines the size of a
population (Aldrich, 1979). Thus, munificent environments improve the carrying capacity for commercial ventures, which entices their creation.

In the present study, I am interested in how social ventures help create munificent environments for commercial ventures. In the previous section, I established that social ventures create social value that improves the well-being of society. When the economy and the quality of life in a geographical region improve, the demand and resources for commercial ventures increase. In fact, economic and social conditions have been considered important environmental variables that affect commercial venture creation (Gnyawali & Fogel, 1994; Gartner, 1985). When social ventures create enough value that is attractive for commercial ventures, the latter will respond by creating organizations that could appropriate that value. For instance, if due to social ventures’ programs more people become homeowners, these people will be in need of furniture and fixtures. If there are enough people in need of these products, commercial ventures will likely be created to fulfill that demand and generate a profit, which would be distributed to the venture’s owners.

Good economic conditions are commonly acknowledged as determinants of new venture creation (Covin & Slevin, 1989, p. 75). One of the factors that Bruno & Tyebjee (1982) suggest that stimulates venture creation is the availability of venture capital, which is an indication of the economic conditions of the region since these types of investors are usually found in prosperous regions. Other authors have considered that economic characteristics are reflected in, among other factors, the availability of venturing opportunities (Chang, Chrisman & Kellermanns, 2011, p. 202). In fact, they found that aspects of economic conditions such as income per capita, GDP, and low unemployment levels where related to new venture creation.
At the same time, other studies found that harsh economic environments resulted in a decrease of net commercial start-up rates (Brixy & Grotz, 2007). The Grameen bank is also an example of how improved economic conditions impact commercial venturing activities. By providing financial resources to people in impoverished communities, the social venture enticed their entrepreneurial endeavors. Furthermore, Grameen bank challenged the culture of the area by empowering women entrepreneurs with micro-loans and putting them in charge of collecting the payments. This type of enduring change has a long lasting impact on commercial entrepreneurial activity in a region.

In terms of quality of life, there are many ways in which various aspects of it entice commercial venture creation. Pennings (1982) examined various quality of life indicators that contributed to the formation of new businesses, and found that the economic, health, and educational aspects had a positive impact on start-up rates. Similarly, Bruno & Tyebjee (1982) presented a variety of factors associated with the creation of commercial ventures. The factors included human capital indicators such as the presence of skilled labor force and the availability of experienced entrepreneurs in the area; and a variety of other quality of life indicators such as access to education, infrastructure, and transportation.

Social entrepreneurship researchers have found through case studies that in communities where social ventures were established to improve socioeconomic conditions, locals eventually decided to form their own commercial ventures (Peredo & Chrisman, 2006). This happened because people in the community became familiar with the entrepreneurial process, in addition to acquiring the skills necessary to start their own businesses by working in the social venture. In addition, the use of community-based social ventures to address their persistent social problems gave entrepreneurship more legitimacy as a career choice within the community, which also
enticed commercial venture creation. Furthermore, the communities’ overall wellbeing improved so they were better able to sustain the growth of the population of commercial ventures.

*Hypothesis 3: Society’s wellbeing is positively associated with commercial venture creation.*

### 3.3.4 The mediating effect of society’s wellbeing

Population ecology holds that institutional processes, consisting of external factors, also influence organizational founding rates. It has been emphasized that economic and social contextual factors can produce variations in founding rates across populations (Aldrich & Wiedenmayer, 1993). Most studies have investigated the influence of such contextual factors on founding rates of specific populations. However, changes in the nature of those external factors can influence not only foundings within populations but can also alter the ecological dynamics among populations (Tucker et al., 1990). In the previous sections I established that social venture creation has a negative effect on commercial venture creation as both populations compete for resources at the time of founding. I also explained that social ventures improve society’s wellbeing through their social value creation activities; this increases the carrying capacity for commercial ventures that react by increasing their founding rates. Consistent with the idea that environmental conditions also affect ecological relationships, I propose that when the positive effect of social value creation on commercial start-up rates is taken into account, the negative effect of social ventures on commercial ventures becomes less prevalent.

A potential explanation is that social ventures are usually created when there are suboptimal economic and social conditions, which are also characterized by resource scarcity. Scarce resources make competition more prevalent, since the two populations need to compete
for more limited resources. In these suboptimal conditions, as demand for social ventures increases, scarce resources are more likely to be devoted to the creation of social ventures rather than commercial ventures. This is because the potential for value appropriation is not high enough to be of interest to commercial entrepreneurs (Santos, 2009); as such, resources are fueled into social ventures. This is also related to the thin demand argument which explains that nonprofit social ventures will serve markets that purely commercial ventures considered too thin to be served profitably (Weisbrod, 2004). Regarding nonprofit social ventures, Corbin (1999) found that these organizations were more likely to be created in economically distressed areas, regardless of whether they were addressing poverty issues or not.

After social ventures have been created, they engage in value creation activities that free up resources in the environment where they operate. The favorable environments created by social ventures would make the initial competitive relationship with commercial ventures less relevant, because there will be sufficient resources to support both populations. Therefore, an increase in the density of social ventures would not affect the carrying capacity of the population of commercial ventures to a great extent. If social ventures create enough social value, accounting for such value could dissipate the initial negative effect. However, I expect some competition for resources to always be present but to become less prevalent as more complementarities between the two populations arise. That is, to the extent that social ventures create value that can be appropriated by commercial ventures, the relationship between them would become more symbiotic.

*Hypothesis 4: Society’s wellbeing partially mediates the relationship between social and commercial venture creation.*
3.4 Methodology

3.4.1 Data and sample

The empirical test is conducted at the county level, since population ecologist have found stronger effects on founding rates at local levels rather than at diffuse geographical levels (Baum & Oliver, 1996). Thus, comparing population dynamics at the county-level allows for capturing stronger effects. The sample for this study consists of all 88 counties in the state of Ohio and covers the period from 2000 to 2006. Due to the two-year time lags required by the mediation analysis, the effective sample consists of 440 county-year observations (88 counties times five years). Data were gathered from a number of secondary sources including the Internal Revenue Service, the Ohio Department of Development, the Ohio Secretary of State, the Ohio Department of Education, the Ohio Department of Taxation, among others.

3.4.2 Measures

*Dependent variable: Commercial venture creation rate.* Consistent with other population ecology studies, I focus on the number of organizations to account for the size of the population. The dependent variable is constructed as a ratio of new commercial establishments to the population of active establishments in the county and is expressed in percentage points. As such, it follows the so-called ecological approach to operationalizing venture creation rates that is common in entrepreneurship research (e.g., Bosma, Stam & Schutjens, 2011; Anyadike-Danes, Hart & O’Reilly, 2005). The data to calculate this variable were obtained from the Ohio Department of Development.
Independent variable: Social venture creation rate. This variable was calculated based on the number of new and active nonprofits organizations in Ohio as provided in the Internal Revenue Service Exempt Organizations Business Master File. Similar to the dependent variable, this variable follows the ecological approach and is constructed as a ratio of new nonprofit organizations in the county to the population of active nonprofits expressed in percentage points. I aggregated individual nonprofit social ventures to the county level according to the Ohio municipal, township, and school board roster published by the Ohio Secretary of State. Because it takes time for the newly created organization to obtain the tax-exempt status (often up to six months or more), I utilized the moving average approach to approximating the number of social ventures created in a particular year that reflects such delay. The numbers obtained closely approximate the estimates of nonprofits created in the state of Ohio reported by the Secretary of State.

Mediator. According to my conceptual framework, society’s wellbeing mediates the relationship between social and commercial ventures. In order to assess this variable, I calculated a wellbeing index for each of the 88 counties in the state of Ohio. For this purpose, I gathered a number of indicators that have been used in previous research to assess a region’s socioeconomic conditions and overall quality of life (e.g. Bruno & Tyebjee, 1982; Chang et al, 2011; Pennings, 1982). The indicators gathered, along with their descriptions, are the following:

- **Educational attainment**: measured as the percentage of the adult population that did not finish high school. The numbers were obtained from the U.S. Census Bureau.
- **Poverty rate**: measured as the percentage of the county population below poverty level. The data were gathered from the U.S. Census Bureau.
• *Supplemental income*: measured as the percentage of the county population that receives supplemental security income. The data were gathered from the Social Security Administration.

• *Income*: measured as income per capita (expressed in thousands of dollars). The numbers were compiled by the Ohio Department of Development based on the information provided by the Bureau of Economic Analysis.

• *Unemployment*: assessed by the unemployment rate reported by the Ohio Department of Job and Family Services.

• *Social security recipients*: measured as the percentage of the county population that receives social security benefits. The data were gathered from the Social Security Administration.

• *Violent crime rate*: measured as the number of violent crimes per 100 residents known to police. Violent crime includes murders, forcible rape, robberies, and aggravated assault. The crime numbers were obtained from the Department of Justice-Federal Bureau of Investigation.

• *Property crime rate*: measured as the number of property crimes per 100 residents known to police. Property crime includes burglaries, larceny-thefts, and vehicle thefts. The crime numbers were obtained from the Department of Justice-Federal Bureau of Investigation.

• *Medicare recipients*: measured as the percentage of the population enrolled in Medicare programs. The data were gathered from Health and Human Services-Centers of Medicare and Medicaid Services.
To construct the wellbeing index, I conducted an exploratory factor analysis followed by a confirmatory factor analysis. The exploratory factor analysis (EFA) was conducted to identify the underlying factors in the set of variables. I employed the principal factor method to extract the factors, and followed it with an oblique rotation. A scree test and the eigen values suggested three meaningful factors with face validity. Five items loaded in the first factor, labeled *socioeconomic conditions index*; the items include 1) educational attainment, 2) poverty rate, 3) supplemental income, 4) income per capita, and 5) unemployment rate. The second factor is labeled *crime index* and contains two items, 1) violent crime rate and 2) property crime rate. The last factor is labeled *social security index* and also contains two items, 1) social security recipients and 2) Medicare recipients.

The confirmatory factor analysis (CFA) was conducted to verify the factor structure obtained from the EFA, and to build indices with the resulting factor loadings. The three factors uncovered in the EFA were included in the CFA as latent variables, which were measured by their respective indicators. Descriptive statistics of the indicator variables are presented in Table 1. The model was estimated using the maximum likelihood method, and the chi-square value for the model was statistically significant ($\chi^2=379.804$, d.f. 24, $p<.001$). The comparative fit index (CFI) is .907, which indicates an acceptable fit (Bentler & Bonett, 1980). Standardized factor loadings for the indicator variables are presented in Table 2. All factor loadings were significant ($p<.001$). Table 2 also shows the reliabilities of the indicators along with the composite reliability for each factor. Composite reliability is a measure of internal consistency similar to coefficient alpha (Fornell & Larcker, 1981). All the factors exceed 0.70, which demonstrates acceptable reliability. The last column in Table 2 provides the variance extracted estimate for each of the factors. This assesses the amount of variance captured by a factor relative to the
variance due to random measurement error (Fornell & Larcker, 1981). All of the variance
extracted estimates exceed 0.50, which is the level recommended by Fornell & Larcker (1981).

Combined, these results support the reliability and validity of the factors and their
indicators. As such, I constructed the three indices with the regression approach using the factor
loadings as coefficients. Subsequently, I averaged the resulting values of the three indices to
calculate the overall county wellbeing index. To ease interpretation, the index was reverse coded
before including it in the mediation analysis. In its original form larger values indicated that the
county was worse off. In the final form, an increase in the value of the index indicates improved
wellbeing.

**Controls.** A number of control variables that have been shown to affect commercial
venture creation rates are included in all the models. First, I control for intra-population
processes which pertain to the dynamics within a single population. These processes relate to
how the number of existing organizations, previous foundings, and disbandings affect the
founding rates of a single organizational population. These are also referred to as density-
dependent processes since the increasing or decreasing density affects future founding rates
(Hannan & Freeman, 1987). Most studies have found a stable pattern of density-dependent
processes across different organizational populations (e.g. Audia et al., 2006; Tucker at al.,
1990). I measure population density as the number of active commercial ventures in each county.
Consistent with population ecology studies, I also control for the number of disbandings
measured as the number of commercial venture failures per 100 firms. Both variables were obtained from the Ohio Department of Development.

In addition the intra-population processes, the new venture creation literature has found other factors that affect creation rates. As such, I control for the county’s population and income growth as they may have direct impact on the number of ventures necessary to serve each county. The numbers come from the U.S. Census Bureau. I also control for county innovativeness as the ratio of county-level patents granted per 10,000 residents. Data were gathered from the National Bureau of Economic Research’s Patent Data Project. Finally, property, income, and sales tax rates are also included as they may impact the viability of establishing a commercial venture in the county. The numbers were gathered from the Ohio Department of Taxation.

3.4.3 Statistical analysis

Because the data is panel in nature (multiple county-year observations), ordinary least squares estimation would be inappropriate and may produce biased results (Cohen, Cohen, West & Aiken, 2003). Econometric techniques that correct for panel error assumptions such as panel heteroscedasticity, panel autocorrelation, and contemporaneous correlation are needed. Following previous studies in the entrepreneurship and management literatures, I employ feasible generalized least squares (FGLS) estimators for all the models (e.g., Bradley, Shepherd & Wiklund, 2011; George, 2005; Lee & Song, 2012; Sine, Haveman & Tolbert, 2005). This estimation method produces more efficient estimates than OLS when panel error assumptions are met, especially when working with large samples. I incorporated appropriate time lags in the independent variable, controls, and mediator in order to uncover causality. Specifically, the
independent variable and controls were lagged by two years and the mediator by one year in the models predicting commercial venture creation rates (the main DV). In the model predicting the mediator, the independent variable and controls were lagged by one year.

3.5 Results

To conduct the mediation analysis, I employ the method suggested by Baron and Kenny (1986), followed by a Sobel test for mediation. Baron and Kenny (1986) suggest fitting three regression models to test for the existence of the mediated relationship. I estimated the recommended models plus one more which includes only control variables. Model 1 is the baseline model including control variables only. The control variables were lagged by two years from the dependent variable—commercial venture creation (CVC). Model 2 consists of the regression of the mediator, wellbeing index, on the independent variable—social venture creation (SVC). The independent variable and controls were lagged by one year for this model. Model 3 shows the regression of the dependent variable, CVC, on the independent variable, SVC. The independent variable was lagged by two years in this model. Finally Model 4 presents the regression of the dependent variable, CVC, on both the independent variable and the mediator, SVC and wellbeing index. For consistency, the mediator was lagged by one year and the independent variables and controls were lagged by two years in this model.

---------------------------------------------------------------

Insert Tables 3 and 4 about here

---------------------------------------------------------------

Table 3 presents descriptive statistics and correlations for all the variables included in the regression models. None of the correlation coefficients is above the recommended cutoff value of .70. Therefore, I conclude that multicollinearity does not jeopardize the validity of the results.
Table 4 presents the results for the four regression models. All four models demonstrate acceptable fit and are statistically significant. The control variables remain consistent across the three models that include the commercial venture creation rate as a dependent variable.

According to Baron and Kenny (1986), the first step in establishing mediation is to test whether the independent variable significantly affects the mediator. Hypothesis 2 predicted this relationship to be positive. As Model 2 shows, the effect of social venture creation on the wellbeing index is positive and significant ($\beta=0.089$, $p<.001$). This result lends support to hypothesis 2 and establishes the connection between the independent variable and the mediator.

The next step to test for mediation is regressing the dependent variable on the independent variable. Due to inter-population dynamics, hypothesis 1 predicted that the relationship between social venture creation and commercial venture creation would be negative. Model 3 presents this regression and shows that the relationship is, in fact, negative and significant ($\beta=-0.249$, $p<.001$). These results support hypothesis 1 and establish the link between the independent and dependent variables.

Hypothesis 3 predicted a positive influence of the wellbeing index on commercial venture creation rates. Model 4 shows this relationship to be statistically significant, but in the opposite direction to that hypothesized ($\beta=-0.186$, $p<.01$). Thus, I conclude that hypothesis 3 is not supported. The final step in the mediation analysis is regressing the dependent variable on both the independent variable and the mediator. To establish full mediation, the estimated coefficient for the independent variable, SVC, should drop below significance levels in the presence of the mediator, wellbeing index. If the coefficient remains statistically significant, partial mediation could be established as long as the independent variable coefficient becomes smaller in the presence of the mediator. Hypothesis 4 predicted a partially mediated relationship.
Model 4 rules out a full mediation effect, since the coefficient for social venture creation remains significant ($\beta=-0.257, p<.001$). At first sight, the model also seems to rule out partial mediation since the coefficient did not lose magnitude. However, Baron and Kenny (1986) warn that, since the independent variable causes the mediator, some degree of multicollinearity may exist in the last equation. Thus, the authors recommend the use of alternative methods to test for mediation. For this purpose, I use the Sobel test which assesses the significance of the indirect effect of the independent variable on the dependent variable via the mediator (Sobel, 1982). The Sobel test statistic is the following:

\[ z = \frac{ab}{\sqrt{(b^2SE_a^2) + (a^2SE_b^2)}} \]

Where $a$ is the regression coefficient of the relationship between the social venture creation rate and the well-being index from Model 2, $b$ is the regression coefficient for the relationship between the wellbeing index and commercial venture creation rate from Model 4. $SE_a$ and $SE_b$ are their respective standard errors. The Sobel test is significant ($z=-2.37, p<0.01$), which suggests the existence of partial mediation. Thus, hypothesis 4 is supported.

### 3.5.1 Post-hoc analysis

Since the results from the mediation analysis did not fully support my conceptual framework, specifically regarding the direction of the effect of wellbeing index on commercial venture creation, I estimated a series of alternative models. Firstly, I suspected that the relationship of the wellbeing index with the commercial venture creation rates was more nuanced than a simple linear relationship. Previous research has uncovered the influence of some of the components of the wellbeing index on new venture creation. However, some studies have
stumbled upon ambiguous evidence regarding the direction of such influence. A good example of this situation is the unemployment rate, which has been found to be positively, negatively, or even not significantly related to new venture creation across different studies (e.g., Chang, Chrisman & Kellermanns, 2011; Evans & Leighton, 1990; Spencer & Gomez, 2004; Wildeman et al., 1998). It could be that a nonmonotonic relationship is behind the conflicting results found in the literature. I suspected that a similar situation would be driving the negative relationship found in Model 4. Therefore, I tested whether a nonmonotonic relationship existed between the wellbeing of the counties and the rates of commercial venture creation. Additionally, I tested for the possibility that social venture creation interacts with the wellbeing index, instead of influencing it, to affect commercial venture creation rates. This decision was driven by the small magnitude of the coefficient for social venture creation in Model 2.

The results of the post-hoc analysis are presented in Table 5. The dependent, independent, and control variables are the same as in the previous analysis. Thus, the descriptive statistics and correlations in Table 3 are applicable to this analysis as well. Similar to the mediation analysis, I use FGLS estimators to calculate the new models. In this case, the independent and control variables are lagged by one year in all four models. Model 5 is a baseline model that consists of control variables only. Model 6 integrates the independent variables, social venture creation (SVC) and wellbeing index. Model 7 adds the squared term for the wellbeing index and Model 8 includes the interactions. All the models demonstrate acceptable fit and are statistically significant. The control variables remained consistent across these four models as well.

As I have predicted, based on population ecology, social venture creation rates exert a negative influence on commercial venture creation. This relationship remained negative and
significant across the models, and became even stronger when the interaction terms were added in Model 8 ($\beta=-0.733$, $p<.01$). These results support a competitive inter-population relationship between social and commercial ventures. Regarding the wellbeing index, as suspected, the results support a nonmonotonic relationship with commercial venture creation rates. The positive and significant coefficient for the squared term in Model 8 ($\beta=0.0205$, $p<.001$) suggests a U-shape relationship. It is worth noting the change in the sign for the wellbeing index coefficient from positive in Model 6 to negative in Model 7. This emphasizes the need for including the quadratic term of the wellbeing index and supports my conjecture that the relationship between this variable and commercial venture creation is more nuanced than originally specified.

Model 8 also shows that an interaction effect between social venture creation rates and the squared wellbeing index exist in the data ($\beta=-0.06$, $p<.05$). To ease interpretation of this result, the interaction is depicted in Figure 1. The figure shows that, in general, commercial venture creation rates are higher in counties with high wellbeing indices. A high wellbeing index could be indicative of a munificent environment, which has been found to entice organizational births (Hannan & Freeman, 1984). The figure also shows that social venture creation makes the U-shape relationship less pronounced. Under high levels of SVC rates, in general, we see less commercial foundings. I believe that the most interesting part of the story happens at the low end of the wellbeing index. The figure suggests that in counties with low wellbeing scores (i.e. low income, high unemployment, high crime rates, etc.), higher SVC rates prevent commercial ventures from being created. In contrast, when SVC rates are low, entrepreneurs seem to create more commercial ventures. A possible explanation could be that when the county conditions are suboptimal, and no social ventures address relevant social issues, more need-based
entrepreneurship arises. However, it would not be possible to substantiate this conjecture without relevant data on the types of commercial ventures created on those counties.

3.6 Discussion

The present study contributes to the social entrepreneurship literature by examining the impact of social ventures on the environment and on the creation of commercial ventures. Taking an ecological perspective, I predicted that the creation of social ventures would undermine the creation of commercial ventures due to the resource overlap between the two organizational populations. The results from the initial and post-hoc analyses lend support to this prediction. In addition to uncovering a negative effect of social venture creation on commercial venture creation, I proposed that the social value creation capabilities of social ventures would improve the wellbeing of the region in which they operate. The data also supported this prediction, thus contributing to the social entrepreneurship literature with an empirical test of social value creation at the regional level. My prediction that social value creation would reduce the competitive relationship, however, was not supported by the data. In both, the initial and post-hoc analyses, the relationship between the two organizational populations remains strongly competitive.

This study also contributes to the population ecology literature by testing the inter-population dynamics between social and commercial organizations. Inter-population processes are highly dependent on the organizational populations being studied (Aldrich, 1990). In addition to uncovering a competitive relationship, I demonstrate that ecological dynamics hold when the populations are broadly defined as a sector, in this case social and commercial sectors. Most research in population ecology has defined industries and sub-industries as the populations of
interest, since ecological dynamics are stronger at these levels of analysis (Hannan & Freeman, 1987). Defining populations broadly makes it harder to uncover ecological effects since the competition among them is more diffuse. However, I was able to find an enduring significant relationship between the two populations, which demonstrates that population ecology predictions also hold for broadly defined populations.

The present study also contributes to the new venture creation literature by demonstrating that the creation of social organizations acts as an antecedent that hinders commercial venture creation. Therefore, researchers examining new venture creation rates in any organizational population should considered the influence of other populations as an important predictor of start-up rates. As Aldrich (1990) stated “more effort should be devoted to tracing out the processes linking all populations into a community of organizations (p. 20).” In addition, I contribute to the new venture creation literature by providing a further test of the relationship between munificent environments and new venture creation. I uncovered a nonmonotonic relationship being the wellbeing of a region and the commercial venture creation rates. This relationship could potentially reconcile conflicting findings regarding the influence of environmental variables on new venture creation rates.

3.6.1 Limitations and future research

This study has some limitations that could be addressed in future research. First, the fact that the sample only includes nonprofit social ventures could limit the generalizability of the results to other types of social entrepreneurial organizations (i.e. for-profit and hybrids). In addition, the population of commercial ventures may include a few ventures with a clear social purpose, since as I mentioned social ventures can also be created as for-profit organizations. The
nature of the data, however, does not allow me to tease out those organizations. Another potential limitation is studying the relationships between two broad organizational populations. Though I was able to uncover a significant competitive relationship, it would be interesting to examine the inter-population dynamics of more narrowly defined organizational populations. For instance, future research could focus exclusively on social ventures and study the ecological dynamics among non-profit, for-profit, and hybrid social ventures. Similarly, future research could define organizational populations in terms of industries and examine the inter-population dynamics among them within and across sectors.

Measuring social value creation with the wellbeing index could also present some drawbacks, since there is a lack of agreement in the literature regarding the assessment of social value created. The measure may be too broad to assess actual value coming from social ventures, which could explain the weak results obtained in the mediation analysis. Future research could develop better measures to assess social value creation. Finally, the fact that the sample was drawn from a single State could pose a limitation on this study. Though it was ensured that the state of Ohio was representative of the country by looking at various indicators, it would be interesting to replicate the results at the national and international levels. The five-year time period utilized in this study may also limit the results, since population ecology studies usually examine longer time periods.

Finally, a clear and fruitful avenue for future research is to investigate the theoretical mechanism driving the U-shape relationship between the wellbeing of a county and commercial venture creation rates. Similarly, future research could focus on the interactive effect of social venture creation rates and the wellbeing of a region to enhance or hinder the creation of new commercial organizations.
Table 1. Descriptive statistics and correlations for CFA

| Variables                  | Mean | SD  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   |
|----------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. Educational attainment | 0.188| 0.05| 1.000|     |     |     |     |     |     |     |     |     |
| 2. Poverty rate            | 10.761| 3.70| 0.576| 1.000|     |     |     |     |     |     |     |     |
| 3. Supplemental income     | 2.092| 1.33| 0.538| 0.876| 1.000|     |     |     |     |     |     |     |
| 4. Income per capita       | 26.148| 5.77|-0.458|-0.416|-0.343| 1.000|     |     |     |     |     |     |
| 5. Unemployment            | 5.846| 1.40| 0.397| 0.650| 0.618| -0.379| 1.000|     |     |     |     |     |
| 6. Social security recipients| 17.765| 2.69| 0.1437| 0.444| 0.492| -0.287| 0.566| 1.000|     |     |     |     |
| 7. Violent crime rate      | 0.135| 0.15|-0.137| 0.175| 0.176| 0.213| -0.054| -0.006| 1.000|     |     |     |
| 8. Property crime rate     | 2.101| 1.45|-0.109| 0.159| 0.199| 0.176| -0.013| -0.052| 0.787| 1.000|     |     |
| 9. Medicare recipients     | 15.355| 2.64| 0.123| 0.436| 0.493| -0.260| 0.493| 0.940| 0.074| 0.007| 1.000|     |
### Table 2. Confirmatory factor analysis results

<table>
<thead>
<tr>
<th>Factors and Indicators</th>
<th>Standardized loading</th>
<th>Reliability</th>
<th>Variance extracted</th>
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<td>Supplemental income</td>
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<td>Medicare recipients</td>
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<td>Property crime rate</td>
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<td>0.978</td>
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Table 3. Descriptive statistics and correlations for mediation analysis

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<th>4</th>
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<td></td>
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<td>0.072</td>
<td>1.000</td>
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<td>-0.085</td>
<td>0.208</td>
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<td>-0.145</td>
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Table 4. Regression results: Mediation analysis

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<td>CVC</td>
<td>Wellbeing Index</td>
<td>CVC</td>
<td>CVC</td>
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<td>0.089***</td>
<td>-0.249***</td>
<td>0.037</td>
<td>-0.257***</td>
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<tr>
<td>Wellbeing index</td>
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<td>-0.273***</td>
<td>0.047</td>
<td>0.469***</td>
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<td>0.401***</td>
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<td>0.053***</td>
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<td>0.045*</td>
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<td>0.291***</td>
<td>0.021</td>
<td>0.119***</td>
</tr>
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</table>

Wald Chi²: 494.79*** 732.07*** 553.03*** 595.75***

*p<0.10  **p<0.05  ***p<0.01  ****p<0.001
Table 5. Regression results: Post-hoc analysis

<table>
<thead>
<tr>
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<th>Model 7</th>
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<td>coeff.</td>
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<td>coeff.</td>
<td>SE</td>
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<td>0.023</td>
<td>-0.063**</td>
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<td>0.205***</td>
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<td>-0.009</td>
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</tbody>
</table>

Wald Chi²  
Model 5: 452.13***  
Model 6: 573.45***  
Model 7: 625.23***  
Model 8: 668.07***  

†p<0.10  *p<0.05  **p<0.01  ***p<0.001
Figure 1. Interaction of wellbeing index and social venture creation rate
ESSAY 3

AT THE MERCY OF THE MARKET: INVESTIGATING SOCIAL VENTURE FAILURE

4.1 Introduction

Stories about successful social entrepreneurs have been on the rise in popular media. Organizations created by these entrepreneurs address a variety of social issues ranging from environment conservation to poverty alleviation. The positive impact that popular social ventures such as the Grameen bank or Kiva have made on society has led to a focus on successful cases not only by the popular media but also by academic researchers. Most social entrepreneurship articles are based on successful cases of social venturing activity. Furthermore, social entrepreneurship research has been mostly concerned with definitional issues, differences with commercial entrepreneurship, factors that lead to the formation of social ventures (e.g. entrepreneur’s motivation, social need, etc.), or the assessment of social impact.

The successful establishment of a social venture does not guarantee that the organization will be able to continue its operations. In order for a social venture to survive, and eventually succeed at creating social value, it has to effectively conduct its operations and manage its environment. Few studies have investigated the strategic or environmental issues that may allow the social venture to continue its operations. In fact, social entrepreneurship scholars have stated the need for more research that addresses factors that may lead or prevent failure among social ventures (e.g. Haugh, 2005). In this study, I attempt to increase our understanding of such factors. Following suggestions made in previous research (Short, Moss & Lumpkin, 2009), I
examine factors that affect social ventures’ survival at different levels of analysis, specifically at the firm- and environmental-levels.

A number of researchers have stated that social entrepreneurship refers to nonprofit organizations that earn at least part of their revenue from commercial activities (e.g. Domenico et al., 2009, Haugh, 2007a; Kerlin, 2005; Thompson, 2002). They argue that the earned income activities differentiate these social entrepreneurial organizations from traditional nonprofits, and that the nonprofit status differentiates them from commercial enterprises (Haugh, 2007b). This view of social entrepreneurship has resulted in a push for nonprofits to become more “entrepreneurial.” Reductions in government support for nonprofits and pressures from donors, and from society in general, have pushed nonprofits to engage in commercial activities.

Though some research has been conducted to uncover the benefits of diversifying income streams in the nonprofit sector, little research has been concerned with the consequences of increasing commercial activity among nonprofits. Given that a great majority of social ventures are constituted under nonprofit legal forms, it is important to understand the effect that commercial activities have on the survival or failure of these organizations.

Two views exist in the literature regarding nonprofit commercial activity. On one side, proponents argue that earned income is beneficial for nonprofit social ventures because it reduces their dependence on traditional sources of revenue such as private donations and government grants. They consider earned income as the most flexible source of funding in the nonprofit sector (Froelich, 1999; Williams 2003). On the other hand, opponents argue that earned income is detrimental for the performance and ultimate survival of nonprofit social ventures because it erodes their legitimacy, creates conflicts of interest, and exposes the nonprofit to direct competition with profit-seeking firms.
In this essay, I propose that both views are correct under certain conditions. Specifically, I argue that the effect of commercial activity on nonprofit social venture failure depends on the degree to which these organizations depend on commercial income sources. Furthermore, I investigate how engaging in unrelated business activities affects the relationship between earned income and social venture failure. I also uncover some environmental factors that influence the effect of earned income on social venture failure. The specific research questions I seek to address are: 1) does adding commercial activities to nonprofit social ventures increase or decrease their probability of failure? and 2) under what conditions commercial activities become more or less effective at preventing nonprofit social venture failure? For this essay, failure is defined as the cease of operations by a nonprofit social venture.

To answer the above research question, I develop and test a series of hypotheses that integrate two theoretical perspectives related to firm strategy. First, I turn to resource dependence theory (RDT) which holds that the key to the survival of an organization is its ability to acquire and maintain resources (Pfeffer & Salancik, 1978). This perspective explains that organizations depend on their environment for the acquisition of resources, and that they engage in actions to reduce such dependence. RDT is highly relevant for the study of earned income generation by nonprofit social ventures, since these organizations usually engage in these activities for the purpose of reducing their dependence on donors and the government. The second theoretical perspective I employ is the resource-based view (RBV) of the firm (Barney, 1991; Wernerfelt, 1984). This theory has also been advocated for the study of social ventures, since it provides a lens to study how these organizations combine and manage resources to improve their organizational processes (Meyskens et al., 2010). Thus, this perspective is also appropriate for investigating the strategic characteristics of nonprofit social ventures that make them more
effective at managing their dependency on the environment, and in turn, reducing their chances of failure.

The hypotheses are tested with a sample of nonprofit social ventures operating in the state of Ohio. The panel dataset covers the period from 2002-2006 and effectively tracks nonprofit failures and survivors. Firm-level variables were obtained from the IRS Form 990, a tax form required for all nonprofit organizations. Environmental-level variables were obtained from a variety of sources such as the Ohio Department of Development and the U.S. Census Bureau. The hypotheses are tested by means of survival analysis, specifically the Cox proportional hazards model.

The remainder of this essay is organized as follows. First, I provide an overview of the two theoretical perspectives from which the hypotheses originate. Second, I present the predictions regarding firm-level factors that contribute to or prevent social venture failure. Third, I develop predictions regarding environmental characteristics and their influence on social venture failure. Fourth, I describe the methodology and the results of the analysis. Finally, I present the contributions and limitation of this study.

4.2 The Importance of Resources

Similar to commercial organizations, nonprofit social ventures engage in resource acquisition and mobilization. The difference between the two types of organizations is that nonprofit social ventures acquire and mobilize resources to create social value. Even though financial outcomes are not the focus of nonprofit social ventures, these organizations still need to manage their resources effectively to ensure their continuing operations. Two theoretical perspectives pay particular attention to the role of resources in organizations. Resource
dependence theory focuses on the dependency of an organization on its environment and on other organizations for the acquisition of resources. This theory explains that organizations engage in a variety of activities to reduce and manage such dependence. The resource-based view focuses on how the organization manages resources to build capabilities. I use both perspectives to investigate how nonprofit social ventures engage in actions to acquire and manage resources in order to reduce their prospects for failure.

4.2.1 Resource dependence theory

Resource dependence theory (RDT) holds that the survival of organizations depends on their ability to acquire resources (Pfeffer & Salancik, 1978). Since those resources are found in the environment, the organization depends on such environment for the acquisitions of resources. RDT maintains that the environment is composed of other organizations, which control certain resources. For this reason, organizations depend on other organizations for resource acquisition. According to RDT, resource acquisition becomes problematic when the organizations controlling those resources are not dependable or are unstable. Therefore, survival of an organization largely depends on its ability to manage transactions with other organizations as well as other environmental contingencies that may threaten a stable flow of resources (Barringer & Harrison, 2000). RDT proposes several organizational actions geared toward reducing dependence such as mergers, vertical integration, management succession, board composition, and joint ventures.

In their seminal work Pfeffer & Salancik (1978) propose that the main problem for organizations is not that they depend on their environment but that the environment is not dependable. A series of events may increase or decrease the pool of resources, thus posing challenges for the organizations that depend upon them. One of the goals of organizations then
should be to stabilize the flow of such resources. An important resource for all organizations, including nonprofits, is financial capital. Financial resources are necessary for nonprofit social ventures to engage in their mission-related activities. The nonprofit literature argues that nonprofit organizations attempt to manage their environment and increase the stability of the financial resources acquisition by diversifying their income streams (Froelich, 1999). It has been argued that having different funding sources would reduce the power of each funder over the nonprofit organizations. This argument follows from RDT as it holds that organizations have power over other organizations to the extent that one organization needs the resources or resource exchanges controlled by the other organization (Casciaro & Piskorski, 2005).

Pfeffer & Salancik (1978) also explain that when environmental changes happen, organizations may not survive or may change their activities in order to adapt to such changes. In the nonprofit sector one environmental change could be attributed to the rise of social entrepreneurship and the push for nonprofits to engage in commercial activities. These environmental pressures are also related to the reduction in government support for these organizations (LeRoux, 2005). Traditional nonprofit organizations may choose to adapt to the new environment and become more “entrepreneurial,” or to keep the status quo. The main concern for nonprofit scholars regarding earned income has been whether nonprofits can manage the conflicting interests of generating commercial income and fulfilling their social missions (Weisbrod, 1998a, p. 168). Few researchers, however, have been concerned with whether nonprofit organizations are able to build the capabilities necessary to compete in commercial markets and ensure their survival.
4.2.2 Resource based view

The resource based view (RBV) analyzes organizations in terms of the resources they possess, as opposed to analyzing them in terms of their outcomes (Wernerfelt, 1984). This theory is useful for understanding a firm’s internal processes and for identifying those resources that should receive more attention. The variety of resources a firm holds can be categorized into physical capital, human capital, and organizational capital (Barney, 1991). Firm resources include all assets, organizational processes, information, know-how, and among others, capabilities that enable the firm to carry out strategies to improve its efficiency and effectiveness (Draft, 1983).

RBV has been used for explaining how resources contribute to a firm’s competitive advantage. Barney (1991) explains that a firm holds a competitive advantage when it implements a value creating strategy not simultaneously being implemented by any other competitor. Firms may further hold a sustained competitive advantage when their value creating strategies can never be implemented by other firms. To contribute to sustained competitive advantage, resources should be 1) valuable, 2) rare, 3) imperfectly imitable, and 4) not substitutable (Barney, 1991, p. 106).

In the case of nonprofit social ventures, having a sustained competitive advantage may not be as important as avoiding firm failure, since these organizations are concerned with social value creation and not with private wealth creation (Dees & Anderson, 2003). Therefore, in this study I focus on valuable, though common, resources as they serve to increase the probability of firm’s survival by ensuring competitive parity (Barney, 1989; Porter, 1980). In fact, social entrepreneurship researchers have acknowledged the usefulness of RBV for the study of social
ventures, since this perspective focuses not only on economic performance but also on resource mobilization leading to effective processes (Meyskens et al., 2010).

From the above discussion, I conclude that the resource based view and the resource dependence theory are complementary in explaining the strategies of nonprofit social ventures that affect their probability of failure. These two theoretical perspectives not only focus on resources but also on engaging in strategies to manage the environment and ensure firm survival. RDT, for instance, explains that seeking alternative sources of supply is a unilateral strategy a firm can use to reduce dependence on a dominant source of inputs, especially when dealing with power-advantaged sources (Casciaro & Piskorski, 2005). In addition, the theory holds that organizations that engage in strategies to reduce dependencies tend to have highly differentiated structures (Pfeffer & Salancik, 1978). According to RBV, the resulting differentiated structures may endow the firm with a competitive advantage, or at the very least, with competitive parity. The competition among nonprofit social ventures is likely to be based on resources rather than on clients, as reducing the number of clients who require their services is the purpose of many nonprofit social ventures.

Resource dependence theory also emphasizes the importance of improving both efficiency and effectiveness, and further argues that efficiency should not be emphasized over effectiveness (Pfeffer & Salancik, 1978). This is especially true for nonprofit social ventures, in which effectiveness at fulfilling their social mission should prevail over efficiency concerns. Though efficiency is necessary to manage and ensure survival, it should never be done at the expense of the social mission.

Finally, similar to resource dependence theory, the resource based view emphasizes the firm’s internal characteristics that allow them to develop capabilities for adapting to changing
environments and reduce failure prospects (Esteve-Perez & Manez-Castillejo, 2008). Nonprofit social ventures possess a number of internal characteristics that may help or harm their efforts to reduce dependence on the environment, specifically their earned income strategies. Financial capital is a tangible resource; thus, getting non-traditional sources of funding may be beneficial for nonprofit social ventures as long as they have or can build the capabilities to manage such transactions. Human and organizational capital are intangible resources that may help the organization build the capabilities necessary to engage in commercial activities. In the next section I explain how earned income strategies affect nonprofit social venture probability of failure, and the organizational and environmental characteristics that may contribute or be detrimental to those efforts.

4.3 Conceptual Framework

4.3.1 Managing dependence with earned income strategies

Nonprofit social ventures obtain financial capital from several sources, the most popular being private contributions, government funding, and commercial activity (Froelich, 1999, Hodge & Piccolo, 2005). Commercial activity, also known as earned income strategies, consists of nonprofit organizations generating income in ways similar to their for-profit counterparts (Dees, 1998). Earned income strategies include the sale of products, charging fees for services, rental income, and membership fees among others. Social entrepreneurship researchers have argued that only nonprofit organizations that generate part of their income from commercial activity can be considered entrepreneurial (Domenico et al., 2009; Haugh, 2007a). However, earned income strategies seem to be the least favorite source of income in the nonprofit literature (e.g. Eikenberry & Kluver, 2004; Weisbrod, 1998b).
Nonprofit organizations may engage in commercial activities in order to reduce reliance on other sources of income such as the government and private donors. Resource dependence theory holds that firms that rely on one primary input for their operations will be more dependent on their environment if the input is obtained from a single source or a small number of sources (Pfeffer & Salancik, 1978). Depending on a single exchange or a limited number of exchanges makes the organization more vulnerable to changes in its environment. For instance, if a nonprofit social venture is highly reliant on government grants and the government decides to cut the financial support for the organization, then its continuing operations would be threatened.

Resource dependence theory argues that organizations seek to diversify their sources of inputs or exchanges, which helps ensure a more stable flow of resources (Pfeffer & Salancik, 1978). Diversification serves as a risk reduction strategy; it has been suggested that these types of strategies lower the mortality risk among new ventures (Shepherd, Douglas & Shanley, 2000). From the resource-based view perspective, nonprofit social ventures engage in commercial activities in order to differentiate themselves from other organizations and be at the forefront in the acquisition of resources. This perspective also suggests that nonprofits develop commercial capabilities in order to capture a resource that is highly valuable for the fulfillment of their mission, namely financial capital.

The social entrepreneurship and nonprofit literatures present mixed arguments regarding the use of earned income strategies. On the one hand, it has been argued that commercial activities are the most flexible source of income (Froelich, 1999; Williams 2003). As such, it enables nonprofit social ventures to continue engaging in mission-related activities that would otherwise be underfunded (Brinckerhoff, 2000). It has been documented that nonprofits decide to engage in commercial activity based on their desire to avoid restrictions on the use of donor and
grant money, and the belief that commercial revenue is more resilient due to the efficiency of markets (Dees, 1998).

Contrary to the above arguments that emphasize the benefits of earned income strategies, some researchers tend to emphasize the negative consequences of engaging in these activities. Some of the biggest concerns relate to legitimacy issues and mission drift. Pfeffer and Salancik, (1978) argue that legitimacy is an important factor for understanding the relationship of organizations with their environment. They explain that because firms utilize society’s resources, society constantly evaluates the legitimacy of the activities that are absorbing such resources. Nonprofit social ventures are constantly being monitored by different stakeholder groups, which may not agree with the “commercialization” of these organizations. Some researchers argue that commercial activity may diminish advocacy and discourage volunteerism (Eikenberry & Kluver, 2004), this in turn would increase the nonprofit’s probability of failure. Several other reasons have been provided against earned income generation, with an important one being that traditional nonprofits lack business perspective, managerial capacity, and the credibility to succeed in commercial markets (Dees, 1998; Foster & Bradach, 2005).

I propose that the two opposing views regarding earned income strategies can be reconciled. On the one hand, the resource based view suggests that having earned income strategies acts as a valuable resource for the nonprofit social venture, since it increases the organization’s flexibility and adaptability which allows for the satisfaction of customers’ varied demands (Haugh, 2007b). Similarly, from a resource dependence perspective, the addition of commercial activities is beneficial since it reduces dependency on donors and government

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2 Though I acknowledge that there is an extensive literature on legitimacy that follows institutional economics conceptualizations, I employ the legitimacy arguments advanced by Pfeffer and Salancik (1978) in their Resource Dependence Theory. This is done with the purpose of preserving the consistency and parsimony of the conceptual framework.
grants. This buffers the organizations against possible instability and reduces its failure prospects. On the other hand, RDT also suggests that attempts to manage dependencies may result in new patterns of dependence, which may not be beneficial for the organization (Pfeffer & Salancik, 1978). In this case, overreliance on commercial income by a nonprofit social venture may shift its dependence patterns and expose it to market instability. In other words, by attempting to reduce the power that donors and the government have over its financial resources, the nonprofit may end up switching the power to commercial markets, which include not only the customers who buy their products or services but also the for-profit organizations with which the nonprofit has to compete. This suggests that a non-monotonic relationship exists between earned income and the probability of failure. That is, earned income can be beneficial for nonprofit social ventures as long as it does not pass the threshold where dependence patterns shift and reliance on this source becomes detrimental.

Hypothesis 1: There is a U-shaped relationship between the proportion of earned income and the probability of nonprofit social venture failure.

4.3.2 The effect of unrelated business income

The earned income activities of nonprofit social ventures are usually related to their social mission. For instance, a clinic may charge small fees for their services, and a recreation center or a museum may offer memberships for a fee. There are instances, however, in which a nonprofit organization engages in commercial activities that are unrelated to their social mission; the Internal Revenue Service designates this as Unrelated Business Income (UBI) which is defined as follows:
Unrelated business income is the income from a trade or business regularly conducted by an exempt organization and not substantially related to the performance by the organization of its exempt purpose or function, except that the organization uses the profits derived from this activity (Internal Revenue Service, 2012, p. 3).

Some examples of unrelated business income include museum’s gift shops, advertising revenue, and income obtained from leasing facilities, among others. Research has found that nonprofits engage in unrelated business activities when they have substantial opportunities to do so, or when they face pressing financial needs (Hines, 1999). Since nonprofit organizations are required to pay taxes on UBI, they tend to avoid unrelated commercial activities. The unrelated business income tax seeks to level the playing field between nonprofit and for-profit organizations. However, it has been argued that nonprofits’ tax-exempt status allows them to effectively compete with their more efficient for-profit counterparts. Thus, taxing their unrelated business activities leaves nonprofits at a disadvantage (Hansmann, 1989).

I propose that when commercial activities are unrelated to the social mission, the negative effects discussed in the previous section are exacerbated. In other words, nonprofit social ventures are more vulnerable to lack of experience in commercial markets and to legitimacy loss when their commercial activities are unrelated to their mission. Nonprofit social ventures have the difficult task of managing the acquisition of financial resources while ensuring that their actions maintain their legitimacy in the eyes of stakeholders (Twombly, 2003). Since UBI does not have a clear relation to the social mission of the organization, mission drift concerns increase and legitimacy may be lost. Unrelated business activities may find political and public resistance including hostility from for-profit competitors. In addition to reduced amounts of donations, volunteers may be less likely to donate their work to unrelated for-profit endeavors (Dees, 1998;
Eikenberry and Kluver, 2004; Weisbrod, 2004). By discouraging donations and volunteerism, loss of legitimacy may also increase the nonprofit’s probability of exit.

Aside from legitimacy issues, individuals managing the nonprofit organization may not have the required expertise to engage in completely unrelated commercial activities. It has been suggested that when management teams engage in novel activities, the mortality risk for the venture increases (Shepherd et al., 2000). Additionally, engaging in unrelated commercial activities exposes the nonprofit to the same kind of risk facing for-profit organizations. Failure rates among commercial organizations are relatively high, and researchers state that nonprofit organizations engaging in commercial activities are not immune to the factors that lead to the failure of their commercial counterparts (Dees & Anderson, 2003). In fact, Foster and Bradach (2005) interviewed executives from 41 nonprofits that engaged in unrelated business activities and found that 71% reported that their ventures were unprofitable, 5% were breaking even, and 24% believed that they were profitable. They later found that the reportedly profitable ventures were not properly accounting for the cost of their commercial activities. It was alarming to notice that most nonprofit organizations were using donations and grants to subsidize their unprofitable commercial endeavors.

In conclusion, from an RDT perspective, nonprofit social ventures attempt to further diversify their income streams with unrelated business activities. From an RBV perspective, these activities, since they are valuable and somewhat rare, should confer nonprofits a competitive advantage over other nonprofits with traditional sources of income or those that engage in business activities directly related to their social mission. However, given the above discussion, it seems that the risk of engaging in unrelated business activities supersedes the potential rewards. Therefore, I argue that an earned income strategy will contribute more to the
probability of organizational failure to the extent that the income comes from unrelated business activities.

*Hypothesis 2: Unrelated business income positively moderates the U-shaped relationship between earned income and probability of failure such that it is more pronounced when unrelated business income is high.*

### 4.3.3 The effect of environmental characteristics

Resource dependence theory’s main premise is that firm’s actions are dependent on its environment or context (Pfeffer & Salancik, 1978). Firms engage in strategies to manage their environmental dependence and also to shape their environment into a more favorable one. It is worth pointing out that managing the environment does not mean that the firm can have complete control over it. Thus, I acknowledge that certain aspects of the environment can influence firm strategy and affect the probability of organizational failure. I specifically focus on industry concentration and the availability of financial capital in a region.

*Industry concentration.* One of the structural characteristics of the environment that affect firm’s effort to manage dependence is the degree of firm concentration. Concentration is the extent to which power in the environment is dispersed among existing organizations (Pfeffer & Salancik, 1978). Specifically, industry concentration refers to the number of firms producing similar outputs and serving similar markets (Bain, 1951). High concentration occurs when only a few firms producing similar outputs exist in the market, whereas low concentration occurs when a large number of firms exist. Industries with a low degree of concentration are said to be highly competitive, therefore a single firm within this kind of industry have less power over resources.
In industries with low levels of concentration, the behavior of any given organization is limited by highly competitive pressures (Pfeffer & Salancik, 1978). Thus, the earned income strategies that nonprofit social ventures employ in order to manage dependency may be constrained by the degree of industry concentration.

Resource dependence studies have found that organizations in industries with high concentration are better able to manage their dependence on the environment (Pfeffer & Salancik, 1978). For example, firms in the pharmaceutical industry enjoy higher profits because their high levels of concentration allow them to restrict entry and manage distribution channels more efficiently (Hirsch, 1975). In contrast, firms in industries with low levels of concentration have less power, which is distributed among a greater number of organizations. Therefore, firms in such industries have to readily respond to customers’ and suppliers’ demands.

In the case of nonprofit social ventures, competition for financial resources is less prevalent when there are only a few players in the industry. Similarly, some legitimacy issues regarding the use of earned income strategies become less harmful because there are not many close substitutes for the services the social venture performs. For instance, if there was only one nonprofit addressing the issue of homelessness, donors would be less likely to withdraw their financial support due to loss of legitimacy perceptions derived from the nonprofit’s engagement in commercial activities. This illustrates the increased power over the environment that high industry concentration confers. However, if a good number of nonprofits addressing the same issue existed, donors could easily withdraw their support for one organization and transfer it to another that is perceived as more legitimate. Due to the improved ability to manage their environment in highly concentrated industries, I propose that earned income strategies will be more beneficial for nonprofit social ventures under this condition.
Hypothesis 3: Social venture concentration negatively moderates the U-shaped relationship between earned income and probability of failure such that it is less pronounced when social venture concentration is high.

Financial capital availability. Another structural characteristic of the environment that affects organizations refers to the concept of munificence (Pfeffer & Salancik, 1978). Environmental munificence is defined as “the scarcity or abundance of critical resources needed by (one or more) firms operating within an environment (Castrogiovanni, 1991, p. 542).” As explained above, a critical resource for nonprofit social ventures is financial capital, since it allows the organization to effectively engage in its mission-related activities. As already noted, aside from commercial activities, nonprofits can draw financial capital from government and private donations (Froelich, 1999).

The importance of financial capital on organizational survival has been highlighted by previous studies. Carter and Wilton (2006), for instance, suggested that new ventures fail due to governments not creating adequate environments to support new ventures’ development. An adequate environment would be characterized, among other factors, by significant financial support for venturing activities. In a study investigating entrepreneurial failure sensemaking, Cardon and colleagues (2011) found that organizational failures were mainly attributed to the state of the economy and to a lack of available funding resulting from venture capitalists unwillingness to provide such funding. In the case of nonprofit social ventures the unwillingness, and oftentimes inability, to provide funding would come from the individual donors and the government.
I propose that when financial capital is scarce, so the government or potential donors do not have sufficient financial resources to support nonprofit organizations, nonprofits would benefit from increasing their commercial activities. Since the organization’s ability to obtain financial capital from traditional sources is severely limited in these conditions, legitimacy issues would be less likely to play a role. In other words, stakeholder groups are more likely to agree with the “commercialization” of a nonprofit social venture, when they recognize that traditional sources of founding are unable to support these organizations. In this case, earned income generation is seen as a legitimate effort to stay viable in order to fulfill the social mission. In conditions of scarce financial capital, the ability to generate sufficient commercial income may be the only way to ensure a nonprofit’s continuing operations.

Hypothesis 4: The availability of financial capital positively moderates the U-shaped relationship between earned income and probability of failure such that it is more pronounced when the availability of financial capital is high.

4.4 Methodology

4.4.1 Data and sample

The empirical test is conducted with panel data on a sample of nonprofit organizations in the State of Ohio covering the period from 2002 to 2006. Firm-level data were obtained from two sources published by the Internal Revenue Service—the Exempt Organizations Business Masterfile and the Microdata Files containing a sample of nonprofits used for the IRS Statistics of Income studies. Both sources contain data from the IRS Form 990, a tax form required for all exempt nonprofits. Environmental-level data, including independent variables and controls, were obtained from a number of secondary sources including the Internal Revenue Service, the Ohio
Department of Development, the Ohio Secretary of State, the U.S. Census Bureau, and the Bureau of Economic Analysis. Most of the environmental indicators are reported at the county-level, and indicators not reported at the county level were aggregated for consistency purposes. Each nonprofit organization was matched to the environmental indicators of the county in which it operated during the sampling year. Accounting for all new entries and failures, the sample consists of 1,613 nonprofits in 84 counties, and 7,200 firm-year observations.

4.4.2 Measures

**Dependent variable.** The dependent measure for this study consists of a binary variable indicating whether the nonprofit social venture failed or survived in the current year (1=failed, 0=censored). Nonprofit organizations are required by the Internal Revenue Service to file Form 990 every year. Therefore, I code the organization as “failed” on the year it stops filing Form 990. If the organization filed the form in all the sampled years, then it is coded as “censored” to indicate that it remained active within the sampling time-period.

**Independent variables: Firm-Level.** The main independent variable is the proportion of **earned income**. This variable is measured as the percentage of total revenue obtained from commercial activities. Form 990 filings contain the total amount of revenue generated by the nonprofit in a given year, and the amount of earned income. The variable was calculated by dividing the “program service revenue” by the “total revenue” fields. The next firm-level variable is the proportion of **unrelated business income (UBI)** generated by the nonprofit. Form 990 contains fields indicating the amount of program service revenue that was obtained from
unrelated non-exempt business activities. Similar to earned income, I calculate the percentage of unrelated business income out of the total revenue reported.

**Independent variables: Environmental-Level.** The first environmental-level variable refers to industry concentration. For the purpose of this study I assess the degree of nonprofit social venture concentration (SVC), since the resource of interest is financial capital, which is applicable to all nonprofit industries. This variable is measured at the county-level by aggregating individual nonprofits to their respective counties according to the Ohio municipal, township, and school board roster published by the Ohio Secretary of State. The variable is then calculated as the number of nonprofit organizations per 100 residents. Information on the number of organizations was obtained from the IRS masterfile, which contains a list of all nonprofits that filed Form 990 in each year. Data on the county population was obtained from the U.S. Census Bureau. The availability of financial capital was proxied with the levels of income per capita within a county. Since income per capita has been used as an indicator of overall prosperity (Todaro, 2000), I expect that higher levels will translate in more funding availability. This variable was obtained from the Bureau of Economic Analysis.

**Controls.** A number of firm- and environmental-level control variables that have been shown to affect organizational failure are included. At the firm level, scholars have found that the “liability of newness” (age) and the “liability of smallness” (size) affect failure rates (Ingram & Baum, 1997; Hannan & Freeman, 1989). Thus, I control for both organizational characteristics. Nonprofit size was measured as the amount of total assets reported by the organization in Form 990 filings; this information is included in both the IRS masterfile and the
IRS microdata files. The age of the organization was assessed by recording the year in which the nonprofit obtained its exempt status, indicated in the IRS masterfile as the *rule date*. This date is a rough indicator of the year of the nonprofit was established, since these organizations may take between a few months to a year from the date they are formed to obtain their exempt status. Unlike other controls, the rule date is not included as a covariate in the survival analysis; instead, it is used to indicate the amount of time the organization was at risk of failure.

At the environmental-level, I control for the county’s *population growth* since it may have a direct impact on the number of social ventures needed in each county. This variable was obtained from the U.S. Census Bureau. I also control for the *commercial venture concentration* in each county since they may directly or indirectly compete with nonprofit social ventures generating earned income. This variable was measured as the number of commercial establishments per 100 residents. The numbers were obtained from the Ohio Department of Development. Finally, *property, sales, and income tax rates* are included as they relate to government policy which exerts an important influence on organizations and may bear on UBI strategies of social ventures. The numbers are gathered from the Ohio Department of Taxation.

### 4.4.3 Statistical analysis

The nature of the dataset and the dependent variable make survival analysis an appropriate method for testing the hypotheses. This type of analysis focuses on the time it takes for an event to occur; in this case the event would be the failure of the nonprofit social venture. The specific technique I employed in this study is the Cox proportional hazards model. This model has the form:

\[
\lambda(t; Z) = \lambda_0(t) \exp[\beta'Z(t)]
\]
Where $\lambda(t; Z)$ is the hazard of firm failure, $\lambda_0(t)$ is the baseline hazard function, $Z$ is a vector of covariates, and $\beta$ is a vector of the coefficients to be estimated (Cox, 1972). An advantage of the Cox model is that it requires no parametric assumptions for the hazard function. Thus, the model is not only appropriate for the binary dependent variable, but it also allows for the small percentage of failures in the sample (33 failures or 2.05% of the sampled firms). Another advantage of the Cox model is that it accounts for the panel nature of the data, which contains non-independent observations. That is, each firm-year observation is a member of a panel identified by the nonprofit’s employer identification number (EIN) issued by the IRS.

Since it makes no parametric assumptions, the Cox proportional hazards model calculates an unspecified hazard rate as a function of time only, and then estimates the effects of the independent variables as multipliers of the baseline hazard. In order to get more accurate estimates of the model, I set up the data using the year the firm was sampled as the time variable, the rule date as the “origin” variable (indicates when the firm became at risk), the EIN as the panel identifier, and the first year the firm appears in the sample as the “enter” variable (indicates when the firm became under observation). Indicating the origin of the observation allows for an accurate representation of the time in which the nonprofit became at risk. The time at risk is calculated as the sampling year minus the origin (rule date), instead of the year minus zero which is the default. As previously mentioned this accounts for the age of the nonprofit organization and reduces the bias caused by left truncation. Finally, given the multi-level nature of the data

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3 As a robustness check, I also conducted the analysis with a smaller sample of nonprofits. To create the smaller sample, I matched all the failure events with 10 similar survivor organizations, which increased the proportion of failures to 10%. The similarities were based on the nonprofit industry and the size, as measured by the amount of assets. The results were largely the same in terms of signs and significance levels. The results from the robustness check are available from the author upon request.
(firm and county-level variables), the standard errors were adjusted using the counties as clusters.

4.5 Results

Descriptive statistics and correlations among the independent and control variables are presented in Table 1. None of the correlations are as high as to raise multicollinearity concerns. In this study, I employed four models to test my hypotheses. Model 1 is a baseline comparison that includes control variables only. Model 2 includes all the independent variables and Model 3 adds the quadratic effect of earned income. Lastly, Model 4 is a full model that includes independent variables, interactions, and controls. All models demonstrate acceptable fit according to Wald chi-square statistics, and are statistically significant. Table 2 presents the hazard ratios for all four Cox proportional hazards models. Hazard ratios below one indicate a negative relationship between the independent variable and the probability of nonprofit failure, while hazard ratios above one indicate a positive relationship. To ease interpretation, Table 3 presents the coefficients of the same four models.

Hypothesis 1 predicted a U-shape relationship between the proportion of earned income and the probability of nonprofit social venture failure. Model 3 provides no support for the hypothesis. That is, without considering key interactions, the effect of earned income is not apparent. At the same time, Model 4 paints a picture more consistent with hypothesis 1. Overall,
the results suggest that earned income generation does not affect the probability of nonprofit failure on its own. Instead, it interacts with other firm- and environmental-level variables to affect such probability. At the firm-level, hypothesis 2 predicted that the proportion of unrelated business income would interact with earned income generation by positively moderating the U-shape relationship. Model 4 shows support for this hypotheses as indicated by the positive and significant interaction between the squared proportion of earned income and the proportion of UBI (HR: 814.588, Coef: 6.703, p<.01). This interaction is depicted in Figure 1.

The figure shows an almost null effect of earned income on the probability of nonprofit failure when UBI is at the average level. It also shows that when UBI is high, the relationship between earned income and probability of failure is a U-shape, suggesting that the effect predicted in hypothesis 1 holds only when the nonprofit generates a high proportion of income from unrelated business activities. On the other hand, the figure shows that, when UBI is low, the relationship between earned income and the probability of failure follows an inverted U-shape. A possible explanation is that, when nonprofits engage in commercial activities that are related to their mission, they are better able to maintain legitimacy and avoid mission drift. It may be that the initial increase in the probability of failure happens because nonprofits with low proportions of earned income are not experienced in commercial markets, and their “side” commercial activities, in fact, distract them from their mission. Whereas, for nonprofits generating high proportions of related earned income, commercial markets may be the main funding source that keeps them in operation. A more fine-grained analysis, however, would be needed to uncover the
reasons for the inversion of the U-shaped relationship. While the sign matches the hypothesis, the strength of the interaction exceeds initial expectations.

At the environmental-level, hypothesis 3 predicted a negative moderating effect of the concentration of nonprofits in the region on the relationship between earned income proportion and the probability of nonprofit failure. This hypothesis is not supported by the data analysis. Lastly, hypothesis 4 predicted that income per capita would positively moderate the relationship between the proportion of earned income and the probability of nonprofit failure. Model 4 shows a positive and significant interaction between income per capita and the squared of the proportion of earned income (HR: 2.711, Coef: 0.997, p<.05); thus hypotheses 4 is supported. The interaction is plotted in Figure 2. The figure shows that at high levels of income per capita, the relationship between the proportion of earned income and the probability of nonprofit failure follows a U-shape. Whereas, at low levels of income per capita the relationship resembles an inverted-U, though the slopes are not as steep as in the high income case.

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4.6 Discussion

The present study contributes to the social entrepreneurship literature by taking a closer look at strategies that lead to social venture failure. I specifically examine earned income generation by nonprofit social ventures. Relying on resource dependence theory and the resource based view of the firm I predict a nonmonotonic relationship between earned income generation and the probability of failure. Furthermore, I found that this relationship holds when the nonprofit social venture generates high proportions of income from unrelated business activities.
Thus, this study attends to suggestions that research exploring “the relationship between the funding mix and success or failure of the social enterprise would provide valuable information for the sector, funding organizations and policy makers (Haugh, 2005, p. 7).” Though I do not investigate the entire funding mix, I uncovered the influence of one of those elements, unrelated business income, on firm survival.

The results pose important implications for research that advocates commercial income in nonprofit organizations as the sole indicator of entrepreneurialism (e.g., Haugh, 2007b; Zeitlow, 2001). Based on the results, a high degree of income coming from commercial activities may be detrimental to NPOs’ survival, especially when it comes mostly from unrelated business activities. I do not argue against commercial income generation as a viable strategy. On the contrary, I advocate the generation of such income at levels that are not detrimental to the nonprofit social venture. However, I also believe that there are other ways for a nonprofit to be entrepreneurial. For example, Morris and colleagues (2011) propose a reconceptualization of the entrepreneurial orientation construct for nonprofit organizations. They explain that nonprofit organizations can be innovative, proactive, and risk-taking with respect to their financing activities, their social mission, or a combination of both. For example, implementing innovative processes to fulfill their social mission should make nonprofits score higher on the EO scale. As this suggests, commercial and unrelated business activities are not the only measures of entrepreneurship among nonprofit organizations.

This study also contributes to the resource dependence literature by testing a unilateral strategy used by nonprofits to manage their resource dependence. The specific strategy I investigate is generating alternative sources of supply (Pfeffer & Salancik, 1978). In this case, the alternative source is commercial income, which could be related or unrelated to the
nonprofit’s mission. This is a unilateral strategy because the nonprofit does not need the consent of the other parties in the resource dependence relationship (e.g. donors or government) to carry out their commercial activities (Casciaro & Piskorski, 2005). The findings support two important RDT predictions. First, the downward slope in the U-shape relationship when UBI is high indicates that generating earned income is an effective strategy to manage resource dependence, since it reduces the probability of organizational failure. The second RDT prediction deals with the upward slope in the U-shape relationship, which indicates that an overreliance on earned income shifts the dependence pattern, as opposed to merely reducing dependence. As a consequence, the probability of failure increases.

The present study also contributes to the social entrepreneurship literature by complementing resources dependence theory with the resource-based view to provide a more detailed analysis of social venture failure. RBV explains that the ability of the nonprofit to build capabilities is another factor influencing the effect of earned income strategies on the probability of failure, whereas, the extant nonprofit literature tends to focus only on legitimacy issues and mission drift concerns. Finally, my study contributes to the literature by testing the pervasive effect of environmental factors on social venture failure. Specifically, I found that the availability of financial capital affects the effect of earned income generation on the probability of failure. The results suggest that all the issues that may be driving the U-shape relationship disappear when the availability of financial capital in the region is low. A possible explanation is that when availability of financial capital is low, traditional funding sources (i.e., donors and government) do not have the resources to support a nonprofit. As such, generating income through commercial activities is the only option to remain viable. In these conditions, nonprofit
stakeholders may recognize that the venture needs the commercial income to survive, and thus would not discount the legitimacy of the endeavor.

4.6.1 Limitations and future research

The present study has some limitations that could be addressed in future research. First, I defined nonprofit social venture failure as nonprofits that have ceased their operations. Previous research finds that some nonprofit organizations dissolve due to mission completion (Fernandez, 2008). Dissolving for this reason actually indicates success of the nonprofit organization. However, it could be argued that a successful nonprofit social venture should be able to re-state its social mission and keep creating social value rather than simply stopping operations. Unfortunately, the available data does not indicate the causes of dissolution for the sample. Future research could uncover the reasons for dissolution and isolate actual failures due to poor performance, rather than mission completion. This would paint a more accurate picture of the causes of nonprofit social venture failure.

A similar issue is posed by the operationalization of the failure variable, which indicates that the nonprofit has failed if it stopped filing Form 990 in the state of Ohio. Although this measure is the best indicator of nonprofit failure, there may be other reasons why the nonprofit stopped filing. For instance, it is possible that the nonprofit had moved to a different state and thus it appears in a different masterfile. It may also be possible that the nonprofit merged with another organization, though this is less likely to occur in the nonprofit sector. Future research again, could take a fine grained look at these organizations to determine what constitutes an actual failure.
Another limitation relates to the use of a sample of nonprofits, as opposed to analyzing the population of nonprofits in the state of Ohio. Since each year, the IRS samples organizations that have submitted Form 990, the sample could be biased toward survivors. In fact, the only way to track nonprofit failures was to combine information from the IRS micro data files (which contain a sample drawn each year) with the IRS masterfile (which contains each year’s nonprofit population). The use of the sample was necessary because the micro data files contain more detailed information about the nonprofit including a breakdown of their income sources, whereas the masterfile only contains general data such as the EIN, name, address, total assets, and total income. Nonprofit organizations are more resilient than for-profits, given that they can draw on multiple sources of income and on volunteer labor. This combined with the sampling methodology produced a small number of failure events to be included in the sample.

Though Cox proportional hazards is able to accommodate for a large number of non-events (i.e., survivors), future research would greatly benefit from identifying a larger number of failure events. For instance, another failure measure could relate specifically to the commercial endeavor within the nonprofit. That is, researchers could assess the profitability of the commercial activities only and their relationship with failure. This would be interesting because prior research has found that some nonprofits end up financing their commercial activities with donation money (Foster & Bradach, 2005). It is possible that failing commercial ventures within the nonprofit organization are the first step leading to the complete cease of operations.

Finally, future research could empirically test the theoretical reasons I provide for the relationships uncovered. For example, the inability to build capabilities to support commercial activities could be assessed by looking at the background of the management team or at the board composition. Similarly, the loss of legitimacy could be measured by changes in funding
support from donors, the government, and volunteers. A negative change in the amount of donations, amount of grants, or number of volunteers could indicate legitimacy loss.
Table 1. Descriptive statistics and correlations

<p>| Variables                        | Mean | SD  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |
|----------------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. Proportion of earned income   | 0.458| 0.45| 1.00|     |     |     |     |     |     |     |     |     |     |
| 2. Unrelated Business Income (UBI) | 0.011| 0.07| -0.04| 1.00|     |     |     |     |     |     |     |     |     |
| 3. Social Venture Concentration (SVC) | 0.559| 0.10| 0.026| -0.001| 1.00|     |     |     |     |     |     |     |     |
| 4. Income per capita (IPC)       | 30.89| 7.65| -0.030| 0.036| 0.258| 1.00|     |     |     |     |     |     |     |
| 5. Social Venture Size           | 3.37 | 1.23| 0.050| -0.018| 0.054| 0.053| 1.00|     |     |     |     |     |     |
| 6. Commercial venture concentration | 2.112| 0.25| -0.010| 0.037| 0.499| 0.276| 0.044| 1.00|     |     |     |     |     |
| 7. Property tax                  | 61.269| 9.74| -0.043| 0.038| 0.418| 0.346| 0.094| 0.262| 1.00|     |     |     |     |
| 8. Income tax                    | 1.144| 0.44| -0.033| 0.034| 0.364| 0.387| 0.075| 0.335| 0.777| 1.00|     |     |     |
| 9. Sales tax                     | 0.932| 0.29| 0.016| -0.045| 0.098| -0.229| 0.012| -0.089| -0.074| -0.258| 1.00|     |     |
| 10. Population growth            | 0.999| 0.01| 0.019| 0.021| -0.493| 0.055| -0.057| -0.269| -0.466| -0.383| -0.189| 1.00|     |</p>
<table>
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| Wald Chi² | 31.62***| 88.54***| 130.50***| 1079.04*** |

*p<0.10   *p<0.05  **p<0.01  ***p<0.001

°N=1,613 Firms (7,200 firm-year observations)
Table 3. Coefficients for predictors of social venture failure

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<td>-0.643**</td>
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Wald Chi²

31.62*** | 88.54*** | 130.50*** | 1079.04***

†p<0.10  *p<0.05  **p<0.01  ***p<0.001

¹N=1,613 Firms (7,200 firm-year observations)
Figure 1. Proportion of unrelated business income interaction
Figure 2. Income per capita interaction
REFERENCES


URL: http://ssrn.com/abstract=1867039


