

Regional dynamism between social and commercial ventures

An empirical study based on Swedish data

Habib Kachlami
Mid Sweden University, Östersund, Sweden

1122

Received 6 November 2015
Revised 10 March 2016
Accepted 16 March 2016

Abstract

Purpose – The purpose of this paper is to study the interaction between social and commercial ventures in a region. It achieves this objective through investigating the influence of social ventures' entry, exit and density on the entry rate of commercial ventures.

Design/methodology/approach – Organizational ecology is applied for theoretical analysis and the feasible generalized least square method for empirical analysis.

Findings – The study, in overall, finds a diffuse competition between the populations of social and commercial ventures. The results have revealed a negative influence of social ventures' entry and density on the entry rate of commercial ventures and a positive influence of the social ventures' exit on commercial ventures' entry rate in a region.

Originality/value – The study is one of the few in its field that empirically studies the interaction between social and commercial ventures and the first study, which investigates it in the context of Sweden. The previous two studies, however, have only examined either the influence of social ventures entry or social venture density on the entry rate of commercial ventures. This study, however, examines the influence of both of those factors plus the influence of social venture exit on commercial venture entry. The study is also unique regarding the large-scale database it uses including all the 290 municipalities all over Sweden 1990-2014.

Keywords Sweden, Social entrepreneurship, Organizational ecology, Commercial entrepreneurship, Firm entry rate, Regional dynamism

Paper type Research paper

1. Introduction

Many scholars agree that both social and commercial ventures acquire and combine unique resources for the pursuit of an opportunity (Meyskens *et al.*, 2010). However, while for commercial ventures the main motivation for resource mobilization is generating economic value (Austin *et al.*, 2006), social ventures mobilize resources to generate social value through addressing unmet social needs (Mair and Marti, 2006; Nicholls, 2006). This difference in the mission of social and commercial ventures has made many research works to study the influence of this difference on, for example, the earned income of social and commercial ventures (Dorado, 2006), on their funding mix (Bacq *et al.*, 2013), or on their determinants (Kachlami, 2014). Among these types of studies, however, very few of them have studied the competitive behaviors of social and commercial ventures and particularly their influence on each other.

A review of the literature on social entrepreneurship identifies that most of the research works on social entrepreneurship have been concerned with defining it as a new concept (e.g. Mair and Marti, 2009; Peredo and McLean, 2006) while its function within the economic system has rarely been discussed particularly its interaction with commercial ventures (Estrin *et al.*, 2013, Zahra and Wright's, 2011). A situation that has made some researchers to call for further research works regarding the interaction between social and commercial ventures (e.g. Estrin *et al.*, 2013; Zahra and Wright's, 2011). Moreover, most of the research works on social entrepreneurship have been mainly focused on conceptual studies more than empirical research (Mair and Marti, 2006; Short *et al.*, 2009) and most of the them have been based on case studies or anecdotal evidence (Mair and Marti, 2006; Short *et al.*, 2009; Sharir and Lerner, 2006, Dacin *et al.*, 2010) rather than applied established theories (Short *et al.*, 2009).



Thus, in an attempt to address these gaps in social entrepreneurship literature, this study investigates the interaction between social and commercial ventures using a large-scale data set covering 290 municipalities all over Sweden 1990-2014, and applies the theory of organizational ecology for analysis. The study particularly investigates the influences, which the entry, exit and density of social ventures in a region may have on the entry rate of commercial ventures. The results of this study show while higher entry and density of social ventures have a negative influence on the entry of commercial ventures, the exit of social ventures has a positive influence. In overall, the results of this study reveal a diffuse competition between the population of social ventures and the population of commercial ventures for local resources.

Many researchers, however, have argued for a symbiotic cooperation between social and commercial ventures (e.g. Peredo and Chrisman, 2006; Estrin *et al.*, 2013; Mair *et al.*, 2012; McMullen, 2011). In none of these studies, however, the interaction between social and commercial ventures has been explicitly at the center of the study and most of them were not empirical.

Recently two studies by Estrin *et al.* (2013) and Abarca and Anokhin (2012) have empirically investigated the interaction between social and commercial ventures. The results of their studies, however, have been mixed. Estrin *et al.* (2013) used the data gathered by Global Entrepreneurship Monitor (GEM) in 2009 for 47 countries, and found a positive relationship between the prevalence of social entrepreneurship and the creation of commercial ventures in a country. Abarca and Anokhin (2012), on the other hand, conducted their study at one State in USA, the Ohio State, using registered data 2003-2007 for 88 counties and found a negative influence of social venture creation on the creation of commercial ventures.

This paper, however, tries to provide a more comprehensive study regarding the interaction between social and commercial ventures and to cover the shortcomings of previous studies. In this regard, not only it examines the influence of social venture entry on the entry of commercial ventures, but also the influence of social venture exit and the population density of existing social ventures on the entry rate of commercial ventures in a region. It also uses the data from 290 municipalities across all Sweden during a long time period of 1990-2014.

This study contributes to one of the least investigated areas of social entrepreneurship literature, that is, the regional dynamism between social and commercial ventures. It also contributes to the literature of organizational ecology that has been mainly concerned with intra-population process rather than inter-population process (Chetkovich and Frumkin, 2003). This study also advances previous research works on social entrepreneurship, which have been mainly conceptual or based on case studies (Estrin *et al.*, 2013).

The study has been also conducted in the context of Sweden, which adds to its contribution due to some particularities of Swedish nonprofit social sector. There is, in fact, no direct match between the Swedish social nonprofit and the British and American concepts of social nonprofit (Lundström and Wijkström, 1996). For example, Sweden has a large welfare system that equally covers the entire citizen, thus, unlike to most of the other countries, the social nonprofit sector in Sweden has proliferated less in areas of health and social service, but mainly in culture, leisure and advocacy (Lundström and Wijkström, 1996). The nonprofit social sector in Sweden is also closely tied to the government and is less independent of the state comparing to, for example, the USA (Boli, 1992). The Swedish nonprofit social sector has, in fact, emerged within the welfare state, and thus its relation with the state is shaped mainly as cooperation rather than conflict or competition (Selle, 1993).

The following parts of this paper, at first, provides an overview of the results of the previous related studies, then discusses the theoretical framework of the analysis used in this paper, and then develop the hypotheses. The fifth section explains the variables and

methods used for testing the hypotheses while the sixth section discusses the results of statistical analysis. In the last section of the paper the conclusion of this study, its practical implications and limitations are discussed.

2. Literature review

Among the previous research on social entrepreneurship, there is a tendency to focus on the positive influence of social ventures on commercial ventures. One line of these research works argues for the benefits that social ventures have for the well being of communities and as a result for commercial ventures as well. They discuss that social ventures generate positive spillovers, which can be appropriated by commercial venture (Estrin *et al.*, 2013; Mair and Marti, 2009; Mair *et al.*, 2012; McMullen, 2011). Peredo and Chrisman (2006), for example, discussed the positive role of social ventures in effective exploitation of resources of communities, which would provide individuals with the required skill to start a business. Estrin *et al.* (2013) discussed that the prevalence of social ventures in a country would increase social capital which could later be appropriated by commercial ventures. The operation of social ventures within communities has also been discussed as the agent of institutional change creating new framework for market transaction, which can later be exploited by commercial ventures (e.g. Mair and Marti, 2009; Mair *et al.*, 2012; McMullen, 2011). Di Domenico *et al.* (2009) also discussed that cross-sector collaboration between social and commercial ventures could increase the efficiency of market function and as a result the well being of communities.

Another line of these researchers views the role of social ventures as complementary to commercial ventures and the government (e.g. Bahmani *et al.*, 2012). They discuss that social and commercial ventures have different resource requirements (e.g. Meyskens *et al.*, 2010; Alvord *et al.*, 2004; Dees and Anderson, 2003). According to this view, when organizations do not compete for resources and complement each other, the mutualism or symbiosis between them should increase (Baum and Singh, 1994).

In most of the previous research, however, the interaction between social and commercial ventures has not been explicitly at the center of their study and has not been examined empirically. Two recent studies by Estrin *et al.* (2013) and Abarca and Anokhin (2012) have tried to explicitly examine the interaction between these two types of ventures. The results of their studies, however, have been mixed.

Estrin *et al.* (2013) studied the influence, which the prevalence of each of these two types of ventures in a country may have on an individual to become social or commercial entrepreneur. They conducted their study using the GEM survey data for 47 countries for 2009. Using social capital theory they identified that the prevalence of social ventures in a country increases the likelihood of the individuals living in that country to become commercial entrepreneurs.

Abarca and Anokhin (2012), however, conducted their study at the smaller geographical levels of the 88 counties of Ohio state in the USA. They used the actual registered data of nonprofit social ventures and commercial ventures from 2003 to 2007. However, instead of studying the influence of the prevalence rate, they studied the influence of social ventures entry on the entry rate of commercial ventures. Applying an organizational ecology perspective, they found a negative influence of social venture founding on the founding rate of commercial ventures.

This study tries to extend the recent two studies by examining the influence of entry, exit and the prevalence rate of social ventures on the population of commercial ventures and applies a large-scale database.

3. Theoretical framework

Entrepreneurship as a process is about bundling resources in the pursuit of an opportunity (Morris *et al.*, 2001). Many scholars also agree that both social and commercial types of

entrepreneurship fall under this definition (Dacin *et al.*, 2010). However, in social entrepreneurship the priority is given to generating social value and addressing unmet social needs (Brooks, 2008; Mair and Marti, 2006; Nicholls, 2006) while commercial ventures primarily look for generating economic value (Austin *et al.*, 2006).

The importance of resource leverage for the survival of social and commercial ventures makes organizational ecology an appropriate tool for analyzing the interaction between social and commercial ventures. Organizational ecology studies the role of resources in the growth or decline of a population of organizations (Austin *et al.*, 2006). Organizational ecology is quite applicable within entrepreneurship studies where the creation of new organizations has been known as a sign of successful entrepreneurship (Baum and Singh, 1994; Tucker *et al.*, 1990). Aldrich (1990) strongly advocated the application of organizational ecology in entrepreneurship studies for a better understanding of organizational founding.

According to organizational ecology, the intensity of competition among organizations is a function of their resource similarity (e.g. McPherson, 1983; Baum and Singh, 1994). The more similar the resources; the higher will be the competition (Baum and Mezias, 1992). Population is at the center of the theory of organizational ecology. A population is a group of organizations, which have similar characteristics and use similar resources (Hannan and Freeman, 1977).

Defining a population of organizations, however, is not an easy job since each organization is distinct and no two organizations are influenced by the environment in the same way (Lundström and Wijkström, 1996). According to Hannan and Freeman (1977), depending on the analysts view, the populations of interest can change from one study to another. In fact, the defined population of organizations is not an immutable object in the nature but an abstract used for theoretical purposes (Carroll, 1984). For example, the population of newspaper organizations can be defined based their location as city vs suburb; based on their size or the extent of their vertical integration, and so on (Carroll, 1984).

For the purpose of this study, two populations of organizations are defined; the population of social ventures and the population of commercial ventures. The population of social ventures consist of the organizations that meeting social needs is at the core of their mission (Lumpkin *et al.*, 2013). Social ventures can have different legal forms (Townsend and Hart, 2008), or different structures like nonprofit, for-profit, hybrid, subsidiary or joint venture (Kistruck and Beamish, 2010; Dees and Anderson, 2003). In this study, however, the population of social ventures is defined based on their legal form and consist of nonprofit social ventures. In Sweden this type of organizations is defined under the legal form of "ideella föreningar" and is eligible for tax exemption (Lundström and Wijkström, 1996). These organizations have all the characteristics of social ventures since meeting social needs is the purpose of their creation and they all share similar legal form. Thus this definition can provide an appropriate population for the purpose of analysis in this study.

The population of commercial ventures, however, is defined as the organizations created to generate economic value and private gains (Austin *et al.*, 2006). Although commercial ventures may also generate social values, but that's collateral to their main mission (Schramm, 2010). In this study, the population of commercial ventures consists of "limited companies other than banking and insurance companies" (Aktiebolag) and "limited partnerships" (Handelsbolag). These are the two main legal forms of commercial ventures in Sweden, thus this definition provides a population, which includes the majority of pure commercial ventures in Sweden.

In organizational ecology, the size of the population of organizations or the population density can be constrained by the amount of finite resources in the environment known as environmental carrying capacity (Hannan and Freeman, 1987). The carrying capacity of a

community for each population, however, is not only determined by the amount of the available resources in the community but also the interaction among the populations within the community (Paarlberg and Varda, 2009). Thus organizational ecology tries to understand how environment and dynamism within and between populations of organizations results in different forms of organizations in society (Hannan and Freeman, 1987).

The framework of organizational ecology, discussed above, will be applied in the next section of this paper to analyze the interaction between the two populations of social ventures and commercial ventures.

4. Hypothesis development

Instead of viewing a population of organization as an isolated unit interacting with its environment, organizational ecology describes how the entry and exit rate of a population of organizations is affected by the presence of other organizational populations (Van Ryzin *et al.*, 2009). In fact, organizational ecology tries to find the link between the vital rates of populations of organizations (Van Ryzin *et al.*, 2009). Organizational ecology also pays attention to the density of population of organizations and how it affects the entry and exit rates within and between populations of organizations. In this regard, most of the studies have tried to explain organizational founding through concentrating on density dependence and population dynamics (Singh and Lumsden, 1990). Thus, in following parts, it is investigated how changes in the vital rates, entry and exit, and the density of the population of social ventures may affect the entry rate of commercial ventures in a region.

4.1 Social venture entry and commercial venture entry

Founding ties up resources, which may not be replaced easily again (Aldrich, 1990). There are a number of reasons to believe that founding in the population of social ventures ties up human and financial resources necessary for the founding of commercial ventures.

Social venture founding, in fact, takes away human resources from a pool of potential commercial entrepreneurs since social and commercial entrepreneurs share many similar skills and characteristics. A recent review of social entrepreneurship literature by Bacq and Janssen (2011) revealed that social entrepreneurs are common with commercial entrepreneurs in many behavioral characteristics such as: the ability to recognize opportunities (Nicholls, 2006; Peredo and McLean, 2006; Roberts and Woods, 2005; Tracey and Phillips, 2007), the desire for innovation (Austin *et al.*, 2006; Mair and Marti, 2004; Roberts and Woods, 2005); the readiness for taking risk (Peredo and McLean, 2006; Zahra *et al.*, 2009) and the desire for survival and growth (Sullivan Mort *et al.*, 2003; Weerawardena and Mort, 2006).

Overlap in human resources, however, does not only contains entrepreneurs themselves but also the employees they hire. Despite volunteers, social ventures also require full time employees for some of their key activities, which can put them in competition with commercial ventures. For example, social and commercial ventures compete for acquiring human resources from the pool of college graduates in a region.

Regarding financial resources also social and commercial ventures may experience some degree of overlap. Research has shown that having access to capital is equally important for founding social ventures (Meyskens *et al.*, 2010). A nonprofit social venture must generate a follow of resources to ensure its financial sustainability (Bryson *et al.*, 2001; Valentinov, 2008). Research has revealed different strategies applied by nonprofit social ventures to ensure their financial sustainability such as: commercial earned income (Wijkström, 1997), relationship marketing (Money *et al.*, 2008, Remley, 1996), fundraising through business principle (Dart, 2004; Goerke, 2003), and strategic alliance (Drumwright *et al.*, 2004).

Therefore, according to the above discussion, founding in the population of social ventures in a region is expected to take away some of the human and financial resources,

which could be otherwise used for the creation of commercial ventures. Hence the first hypothesis is proposed as bellow:

H1. The entry of social ventures in a region negatively influences the entry rate of commercial ventures.

4.2 Social venture exit and commercial venture entry

Disbanding of existing organizations provides free-floating resources, which can be used for the founding of new organizations (Singh and Lumsden, 1990). Many of the founding is, in fact, the replacement of dissolved organizations (Aldrich, 1990). Due to the resource similarities between social and commercial ventures, discussed above, disbanding of social ventures, thus, can also provide some free-floating human and financial resources that can be used for the creation of commercial ventures. The disbanding of social ventures may have a stronger effect on the creation of commercial ventures due to the several competitive advantages, which social ventures have in resource acquisition over commercial venture.

Social ventures are able to offer final products or services with lower price comparing to their commercial competitors. First, due to their altruistic motives, they can offer products below average cost, while, a commercial venture, in this case, should downgrade the quality of its product or service to be able to make profit (Baum and Oliver, 1996; Lakdawalla and Philipson, 2006). In fact, altruism provides them with the motives to sell output at a lower price (Lakdawalla and Philipson, 2006). Second, social ventures also enjoy from monetary and in-kind subsidies such as tax exemptions, voluntary work force, and lower paid employees (Lakdawalla and Philipson, 2006). Nonprofit social ventures can, in fact, be analyzed as commercial ventures with a cost advantage (Lakdawalla and Philipson, 2006). As a result of this cost advantage nonprofit social ventures are the last to exit any industry (Lakdawalla and Philipson, 2006).

The recent pressure on nonprofit social ventures to behave more market-like in their philosophies, structure and operations have even increased the resources overlap between social and commercial ventures (Eikenberry and Kluver, 2004); a phenomenon called by Salamon and Anheier (1997) as “marketization” of nonprofit. Nowadays there is more consensus that social entrepreneurs should be economically independent to sustain their operations (Boschee and McClurg, 2003). For example, a growing number of social ventures are applying earned income strategies to achieved organizational sustainability through combining nonprofit and for-profit features (Peredo and McLean, 2006). A study of the European charities revealed that earned income form 47 percent of their sources (Defourny and Nyssens, 2010). In some types of social ventures this number can be even higher. For example, Vidal (2005) found that for Work Integration Social Enterprises’, earned income form 80 percent of their income mix.

Thus, regarding the above discussion, it is expected that the exit of social ventures, in any given industry, to reduce the resource competition for commercial ventures and facilitate their entry. Hence, the second hypothesis is proposed as bellow:

H2. The exit of social ventures in a region positively influences the entry rate of commercial ventures.

4.3 Social venture density and commercial venture entry

The potential for competition between two populations of organizations is affected by the number of organizations already occupying the same resource niche (Bosma *et al.*, 2011). In more crowded resource niches, founding attempts would be less numerous comparing to less crowded niches (Bosma *et al.*, 2011). Social and commercial ventures, as discussed above, have some degree of human and financial resource overlaps. Thus, increase in the

population of social ventures will create more crowded resource niches resulting in a less numerous commercial founding.

Despite creating more crowded resource niches, the increase in the population density of a population, however, also provides them with legitimacy and political power (Van Ryzin *et al.*, 2009). Institutional legitimacy increases the status of an organization within the community and facilitates the acquisition of resource (Singh *et al.*, 1986). The increased legitimacy of the population of nonprofit social ventures can also help them to change the institutional settings in their own favor. In this regard, nonprofit social ventures try to convince environmental actors that they are different and superior to their competitors and these are those, rather than their competitors, who really deserve resources (Barman, 2002). In a survey of the staff of 79 local governmental departments in Victoria and in an in-depth interview of social entrepreneurs, Barraket and Archer (2009) found that social ventures have the potential to influence and change institutional practices to achieve their organizational goals and social mission; a tactic called “manipulation” by Oliver (1991) and “exploitation” by Alexander (1998).

The legitimacy and political power of social ventures can even be higher due to their trustworthiness. Nonprofit social ventures benefit from their trustworthiness in areas where the customer cannot evaluate the quality of the services, for example, in healthcare (Hansmann, 1980; Hirth, 1999; Clarke and Estes, 1992). Commercial ventures, however, are often, due to their profit motives, charged with downgrading their service quality (James, 1989). In fact, trustworthiness of nonprofit social ventures can provide them with competitive advantage in acquiring legitimacy and governmental funding (Bosma *et al.*, 2011). This also would prevent commercial ventures to compete aggressively against nonprofit social ventures due to the fear of damaging their public image (Bosma *et al.*, 2011).

Thus, the increased population density of social ventures is expected to make resource acquisition more difficult for the founding of commercial ventures. Hence the third hypothesis is proposed as bellow:

H3. The prevalence of social ventures in a region negatively influences the entry rate of commercial ventures.

5. Variables, data, and model

5.1 Dependent variables

The dependent variable in this study is the entry rate of the population of commercial ventures. For measuring the entry rate, however, using the absolute number of start-ups would be misleading since the size of markets across regions is not homogenous. Thus, the absolute number of new start-ups should be standardized in a way that makes comparison between different markets meaningful. Following the ecological approach, the entry rate is standardized through dividing the number of new entrants in each period to the total number of firms existed at the beginning of that period (Audretsch and Fritsch, 1994):

$$\text{Commercial Entry Rate}_i(t) = \frac{\text{Commercial venture entry}_i(t)}{\text{Total commercial ventures}_i(t-1)} \times 100$$

5.2 Independent variables

5.2.1 Social venture entry and exit rate. Similar to the entry rate of commercial venture, the entry and exit rate of social venture is also standardized using the ecological approach:

$$\text{Social Entry Rate}_i(t) = \frac{\text{Social venture entry}_i(t)}{\text{Total social ventures}_i(t-1)} \times 100$$

$$\text{Social Exit Rate}_i(t) = \frac{\text{Social venture exit}_i(t)}{\text{Total social ventures}_i(t-1)} \times 100$$

5.2.2 Social venture density. Although, the original measure of population density was just the number of organization of a population, but researchers has started to develop other measures of population density like the size distribution of organization and population mass (Barnett and Amburgey, 1990; Baum and Mezias, 1992; Hannan and Carroll 1992). However, there is no single measure that can fully reveal all effects of complex competitive forces resulting from density on founding (Aldrich and Martinez, 2001). Since in this study, the population of social ventures is spread over different industries in a region and not a specific industry, to capture the population density of social ventures, the number of social ventures in a region per 100 inhabitants has been used as the measure of density of social ventures:

$$\text{Social Venture Density}_i(t) = \frac{\text{Total Number of Social Ventures}_i(t)}{\text{Total Population}_i(t)} \times 100$$

5.3 Control variables

There are lots of evidence showing that the regional characteristics that affect supply and demand conditions influence the entry rate of new ventures in a region (Verheul *et al.*, 2001). Thus, this study, based on the results of previous research, controls for some of the most important variables which may correlate with the entry rate of commercial ventures in a region.

5.3.1 Entrepreneurial role model. Many research have shown that the presence of entrepreneurial role models in a region will positively influence the likelihood of people to start a new venture (e.g. Aldrich, 1999; Blanchflower and Oswald, 1998; Arenius and Minniti, 2005). Thus this study controls for the effect of entrepreneurial role models in a region through a variable, which measures the percent of entrepreneurs to the employed population in a region. Thus this study controls for the effect of entrepreneurial role models in a region through a variable, which measures the percent of entrepreneurs to the employed population in a region.

5.3.2 Average income (tkr). The income level can also be a determinant of commercial venture entry rate (Andersson and Koster, 2011; Gnyawali and Fogel, 1994). The variable used in this study divides the total income from employment and business to the total population above 16 years old. To ensure normality, the logarithm of this variable has been used.

5.3.3 Unemployment. One of the important predictor of the entry rate of commercial ventures is unemployment (Audretsch and Fritsch, 1994; Hamilton, 2000; Evans and Leighton, 1990; Storey, 1991). The variable used in this study captures the percent of people 20-64 who are registered as open unemployed, i.e. those who are ready to work but have no job.

5.3.4 Education. Previous research has shown that high skilled labors are more likely to start a new venture (Arenius and Minniti, 2005; Armington and Acs, 2002). The variable used in this study measures the percent of people in a region who finished high school and got permission to enter college.

5.3.5 Population growth. A growing population increases the demand for products and services and provides more opportunities for new economic activities (Wennekers *et al.*, 2005; Armington and Acs, 2002; Reynolds *et al.*, 1994; Storey, 1991). The variable used in this study captures the percent of increased population due to new born or due to immigration and it can be negative or positive.

5.3.6 Population density. Increase in population density in a region provides more entrepreneurial opportunities and results in a higher rate of new firm formation (Acs *et al.*, 2013; Reynolds *et al.*, 1994; Armington and Acs, 2002). The variable used in this study measures the population per square kilometer in a region.

5.3.7 Metropolis. Empirical findings show that urban areas experience a higher rate of firm formation (Henderson and Weiler, 2009; Henderson and Weiler, 2009; Schmookler, 1966). In this study, a dummy variable has been defined which controls for municipalities with populations above 100,000 inhabitants.

5.3.8 Tax. Studies regarding the influence of tax on firm formation, however, have shown an ambiguous effect (Bruce and Mohsin, 2006; Fossen, 2009). On one hand researchers like Cullen and Gordon (2007) discuss that higher tax rate reduces the risk of entrepreneurial activity and hence increase the level of firm formation. On the other hand researchers like Gentry and Hubbard (2000, 2004) discuss that high tax rate reduces the return of a risky project and hence negatively influences the rate of firm formation. Some studies like (Georgellis and Wall, 2006) have reported a curvilinear effect of tax on the rate of firm formation. The variable used in this study captures the total tax rate in a region.

5.4 Data

All the data have been acquired from Statistics Sweden (SCB), the official authority for collecting and issuing data in Sweden. Seven different databases of SCB have used for calculating the required variables. For example, the variable regarding social and commercial ventures start-up and closed down have been acquired from SCB business register database, the data regarding population has been acquired from Population database, and so on.

5.5 Model specification

The data used in this paper are panel data with multiple region-year observations. Since individuals living in the same regions share some common experience that differentiate them from individuals living in other regions, their entrepreneurial behavior will also be systematically influenced by this regional factors. This means that observations from the same region are not independent any more. Thus, OLS regression models cannot be used since it will produce biased standard error estimations and the significance level would not be reliable (e.g. Bliese, 2002; Rabe-Hesketh *et al.*, 2005).

Therefore, there is a need for econometric models, which control for panel autocorrelation and heteroscedasticity. In this regard feasible generalized least squares (FGLS) which controls for panel error structure would be a suitable technique. FGLS regression gives reliable estimates when there are autocorrelation and heteroscedasticity (Wooldridge, 2002). FGLS regression has also been used by many similar research works in the past (e.g. Acs *et al.*, 2012; Wall, 2004; Loveridge and Nizalov, 2007; George, 2005). Thus in this paper the FGLS model for heteroskedastic panels with common AR(1) autoregression has been used. To reveal causality, all the independent and controls variables were lagged for one year.

6. Results

The results of statistical analysis are shown in Tables I-III. Tables I and II show the results of descriptive statistics and correlations, respectively. As can be seen Table II, none of the correlation coefficients exceeds the recommended threshold of 0.7 (Hair *et al.*, 2003). Thus, multicollinearity does not affect the results of the statistical analysis. model 1 in Table II is the baseline model and consists of only control variables while Model 2 also includes the

Table I.
Descriptive statistics
(*n* = 3,556)

Variable	Mean	SD	Min.	Max.
Commercial venture entry rate	9.258774	11.252	0.4709576	836.5958
Social venture entry rate	9.85048	12.69887	0.3257329	314.8148
Social venture exit rate	9.727059	14.8953	0.274223	766.6667
Social venture density	0.3060167	0.1812831	0.0050658	2.366246
Entrepreneurial role models	9.454082	2.615182	3.9	22.6
Average income	5.162826	0.243911	4.601162	6.12315
Unemployment	7.77958	2.441533	2.5	20.8
Population increase	0.1087911	3.08578	-38.01566	100
Population density	128.0263	432.6779	0.2	5073.6
Metropolis	0.0413793	0.1991797	0	1
Tax rate	31.89767	1.206584	26.47	34.75
Education	85.76976	6.951735	41	100

	1	2	3	4	5	6	7	8	9	10	11
Commercial venture entry rate	1.000										
Social venture entry rate	0.414	1.000									
Sig.	0.000										
Social venture exit rate	0.306	0.431	1.000								
Sig.	0.000	0.000									
Social venture density	-0.087	-0.047	-0.167	1.000							
Sig.	0.000	0.004	0.000								
Entrepreneurial role models	-0.065	0.027	0.016	0.194	1.000						
Sig.	0.000	0.104	0.323	0.000							
Average income	0.110	0.049	-0.085	-0.079	-0.012	1.000					
Sig.	0.000	0.003	0.000	0.000	0.467						
Unemployment	-0.003	0.011	0.096	0.136	-0.150	-0.597	1.000				
Sig.	0.853	0.492	0.000	0.000	0.000	0.000					
Population increase	0.137	0.004	-0.044	-0.314	-0.113	0.518	-0.397	1.000			
Sig.	0.000	0.813	0.007	0.000	0.000	0.000	0.000				
Population density	0.111	0.024	-0.001	-0.151	-0.130	0.260	-0.097	0.338	1.000		
Sig.	0.000	0.144	0.934	0.000	0.000	0.000	0.000	0.000			
Metropolis	0.160	0.120	0.117	-0.094	-0.210	0.065	0.052	0.221	0.257	1.000	
Sig.	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000		
Tax rate	-0.033	0.019	0.058	0.260	0.028	-0.161	0.272	-0.420	-0.344	-0.126	1.000
Sig.	0.046	0.241	0.000	0.000	0.082	0.000	0.000	0.000	0.000	0.000	
Education	-0.045	-0.024	-0.037	0.101	0.067	0.312	-0.184	0.050	-0.028	0.004	0.052
Sig.	0.006	0.150	0.024	0.000	0.000	0.000	0.000	0.002	0.087	0.814	0.001

Table II.
Correlation table

independents variables. Both models are highly significant ($p < 0.001$). The coefficients of control variables change when independent variables are added in model 2 but their sign and significance remain robust in both models.

According to model 2 which is the full model, the entry in the population of social ventures negatively influences the entry in the population of the commercial ventures ($\beta = -0.025, p < 0.001$) supporting the first hypothesis. However, the exit in the population of social ventures has a positive effect on the entry in the population of commercial ventures ($\beta = 0.091, p < 0.001$) supporting the second hypothesis. Regarding the existing social ventures, model 2 reveals a negative influence of the density of social ventures on the entry rate of commercial ventures ($\beta = -1.924, p < 0.001$). In overall, the results of the statistical analysis confirm the existence of a resources competition between the population of social and commercial ventures in a region.

Table III.
Results of FGLS
regression analysis
(dependent variable:
commercial venture
entry rate)

Variables	Model 1		Model 2	
	Coefficient	SE	Coefficient	SE
Social venture entry rate	-0.031***	0.005	-0.025***	0.005
Social venture exit rate	0.065***	0.005	0.091***	0.091
Social venture density	-2.486***	0.332	-1.924***	0.333
Entrepreneurial role models			0.075***	0.021
Average income			6.758***	0.387
Unemployment			0.302***	0.027
Population increase			0.294***	0.066
Population density			0.000***	0.000
Metropolis			1.156	0.882
Tax rate			0.213***	0.052
Education			-0.058***	0.009
Intercept	9.353***	0.136	-32.583***	2.387
Wald χ^2	330.04***		1007.05***	

Notes: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; **** $p < 0.10$

7. Conclusion

The results of this study are in line with the results of the study by Abarca and Anokhin (2012) who studied the dynamism between social and commercial ventures at the 88 counties of Ohio State, USA and found a negative relationship. However, it contradicts the results of the study by Estrin *et al.* (2013) who studied it at the level of countries and found a positive relationship.

Following the logic of organizational ecology, the positive relationship found by Estrin and colleagues (2013) between social and commercial ventures can, in fact, be attributed to the carrying capacity of each country because they looked at their interaction at one in time, i.e. 2009. That is, countries with more resources had shown higher formation rates of both types of ventures. Moreover, for Estrin *et al.* (2013) the level of analysis was country while, according to organizational ecology, competitive process is more local (Zucker, 1989). Small geographical areas face more intense competition since in these areas resources are more tightly bounded (Zucker, 1989). For example, Hannan *et al.* (1995) through using the data for the founding of 2,520 car manufacturing firms in five European countries 1886-1981 showed that while at the European level the density of car manufacturing firms had a positive influence on the entry rate of these firms, but one level smaller, at the country level, it had a negative influence for two of the countries. Various entrepreneurship research works have also identified regional level rather than national level as the most appropriate level of analysis (Bosma *et al.*, 2011; Trettin and Welter, 2011).

The results of this study can have very important practical implications for regional practitioners and policy makers both in the short term and in the long term. An important practical implication would be that the symbiotic relationship between social and commercial ventures reported by previous research works (e.g. Peredo and Chrisman, 2006; Estrin *et al.*, 2013) holds in the long run when organizations are established and not at the time of founding. In the long run the positive spillovers of social ventures can provide a situation within communities that other ventures can capitalize on it, but at the time of founding the two populations of social and commercial ventures compete for limited resources. Therefore, regional entrepreneurship policies aiming to promote entrepreneurship in a region should adapt a long-term perspective focusing on both types of social and commercial ventures since in the long-term they can benefit from the existence of each other through symbiotic relationship.

The prerequisite for this long-term benefit, however, is that in the short-term start-up policies, policies aiming to stimulate the number of start-ups, provide resources for both populations of social and commercial ventures. Provision of resources for both populations can, in fact, reduce the competition between them and increase the number of both social and commercial start-ups in a region.

Thus, in overall the results of this study advocate a balanced view toward entrepreneurship policies, both in the short and in the long term, where both social and commercial ventures are present. This would not only be beneficial to the success of entrepreneurship policies, but also would preserve the diversity of social and commercial ventures in a region. According to organizational ecologists, organizational diversity helps a society to adjust better in changing and uncertain environment (Hannan and Freeman, 1987).

This study, however, has some limitations that could be addressed in future studies. The interactions studied in this study are only through the perspective of social ventures, i.e. how social ventures influences commercial ventures' entry, while future research can also investigate this interaction through the perspective of commercial ventures. The population of social ventures in this study only includes nonprofit social ventures with clear social mission while future studies may also include social venture created under the legal form of for-profit organizations. The nature of the data in this study, however, did not allow capturing those organizations as well. This study also has been conducted in the context of Sweden, which may limit its generalizability to other contexts.

References

- Abarca, K.M. and Anokhin, S. (2012), "Symbiosis or competition? The inter-population dynamics between social and commercial ventures", *Frontiers of Entrepreneurship Research*, Vol. 32 No. 19, available at: <http://digitalknowledge.babson.edu/fer/vol32/iss19/2>
- Acs, Z.J., Audretsch, D.B. and Lehmann, E.E. (2013), "The knowledge spillover theory of entrepreneurship", *Small Business Economics*, Vol. 41 No. 4, pp. 757-774.
- Acs, Z.J., Audretsch, D.B., Braunerhjelm, P. and Carlsson, B. (2012), "Growth and entrepreneurship", *Small Business Economics*, Vol. 39 No. 2, pp. 289-300.
- Aldrich, H.E. (1990), "Using an ecological perspective to study organizational founding rates", *Entrepreneurship Theory and Practice*, Vol. 14 No. 3, pp. 7-24.
- Aldrich, H.E. (1999), *Organizations Evolving*, Sage Publications, London.
- Aldrich, H.E. and Martinez, M.A. (2001), "Many are called, but few are chosen: an evolutionary perspective for the study of entrepreneurship", *Entrepreneurship Theory and Practice*, Vol. 25 No. 4, pp. 41-56.
- Alexander, V.D. (1998), "Environmental constraints and organizational strategies: complexity, conflict, and coping in the nonprofit sector", in Powell, W.W. and Clements, E. (Eds), *Private Action and the Public Good*, Yale University Press, New Haven, CT, pp. 272-290.
- Alvord, S.H., Brown, L.D. and Letts, C.W. (2004), "Social entrepreneurship and societal transformation an exploratory study", *The Journal of Applied Behavioral Science*, Vol. 40 No. 3, pp. 260-282.
- Andersson, M. and Koster, S. (2011), "Sources of persistence in regional start-up rates – evidence from Sweden", *Journal of Economic Geography*, Vol. 11 No. 1, pp. 179-201.
- Arenius, P. and Minniti, M. (2005), "Perceptual variables and nascent entrepreneurship", *Small Business Economics*, Vol. 24 No. 3, pp. 233-247.
- Armington, C. and Acs, Z.J. (2002), "The determinants of regional variation in new firm formation", *Regional Studies*, Vol. 36 No. 1, pp. 33-45.
- Audretsch, D.B. and Fritsch, M. (1994), "On the measurement of entry rates", *Empirica*, Vol. 21 No. 1, pp. 105-113.

- Austin, J., Stevenson, H. and Wei-Skillern, J. (2006), "Social and commercial entrepreneurship: same, different, or both?", *Entrepreneurship Theory and Practice*, Vol. 30 No. 1, pp. 1-22.
- Bacq, S. and Janssen, F. (2011), "The multiple faces of social entrepreneurship: a review of definitional issues based on geographical and thematic criteria", *Entrepreneurship & Regional Development*, Vol. 23 Nos 5-6, pp. 373-403.
- Bacq, S., Hartog, C. and Hoogendoorn, B. (2013), "A quantitative comparison of social and commercial entrepreneurship: toward a more nuanced understanding of social entrepreneurship organizations in context", *Journal of Social Entrepreneurship*, Vol. 4 No. 1, pp. 40-68.
- Bahmani, S., Galindo, M.Á. and Méndez, M.T. (2012), "Non-profit organizations, entrepreneurship, social capital and economic growth", *Small Business Economics*, Vol. 38 No. 3, pp. 271-281.
- Barman, E.A. (2002), "Asserting difference: the strategic response of nonprofit organizations to competition", *Social Forces*, Vol. 80 No. 4, pp. 1191-1222.
- Barnett, W.P. and Amburgey, T.L. (1990), "Do larger organizations generate stronger competition?", in Singh, J. (Ed.), *Organizational Evolution: New Directions*, Sage, Newbury Park, CA, pp. 78-102.
- Barraket, J. and Archer, V. (2009), Changing the rules in use? An examination of social enterprise in local governance, paper presented at 2009 International Social Innovation Research Conference (ISIRC), Social Innovation – Reconfiguring Markets, Blurring Sector Boundaries and Challenging Institutional Arrangements, Oxford University, September.
- Baum, J.A. and Mezias, S.J. (1992), "Localized competition and organizational failure in the Manhattan hotel industry, 1898-1990", *Administrative Science Quarterly*, Vol. 37 No. 4, pp. 580-604.
- Baum, J.A. and Oliver, C. (1996), "Toward an institutional ecology of organizational founding", *Academy of Management Journal*, Vol. 39 No. 5, pp. 1378-1427.
- Baum, J.A. and Singh, J.V. (1994), "Organization-environment coevolution", in Baum, J.A.C. and Singh, J.V. (Eds), *Evolutionary Dynamics of Organizations*, Oxford University Press, Oxford, pp. 379-401.
- Blanchflower, D.G. and Oswald, A.J. (1998), "Entrepreneurship and the youth labour market problem: a report for the OECD", Report to OECD, Paris.
- Bliese, P.D. (2002), "Multilevel random coefficient modeling in organizational research: examples using SAS and S-PLUS", in Drasgow, F. and Schmitt, N. (Eds), *Measuring and Analyzing Behavior in Organizations*, Jossey-Bass, San Francisco, CA, pp. 401-445.
- Boli, J. (1992), "The ties that bind: the nonprofit sector and the State in Sweden", in McCarthy, K.D., Hodgkinson, V.A. and Sumariwalla, R.D. (Eds), *The Nonprofit Sector in the Global Community*, Jossey Bass, San Francisco, CA.
- Boschee, J. and McClurg, J. (2003), "Towards a better understanding of social entrepreneurship: some important distinctions", available at: www.sel.org.uk/Downloads/BoscheeMcClurgEssay.pdf (accessed May 2009).
- Bosma, N., Stam, E. and Schutjens, V. (2011), "Creative destruction and regional productivity growth: evidence from the Dutch manufacturing and services industries", *Small Business Economics*, Vol. 36 No. 4, pp. 401-418.
- Brooks, A. (2008), *Social Entrepreneurship*, Pearson Prentice Hall, Upper Saddle River, NJ.
- Bruce, D. and Mohsin, M. (2006), "Tax policy and entrepreneurship: new time series evidence", *Small Business Economics*, Vol. 26 No. 5, pp. 409-425.
- Bryson, J.M., Gibbons, M.J. and Shaye, G. (2001), "Enterprise schemes for nonprofit survival, growth, and effectiveness", *Nonprofit Management and Leadership*, Vol. 11 No. 3, pp. 271-288.
- Carroll, G.R. (1984), "Organizational ecology", *Annual Review of Sociology*, Vol. 10 No. 1, pp. 71-93.
- Chetkovich, C. and Frumkin, P. (2003), "Balancing margin and mission nonprofit competition in charitable versus fee-based programs", *Administration & Society*, Vol. 35 No. 5, pp. 564-596.
- Clarke, L. and Estes, C.L. (1992), "Sociological and economic theories of markets and nonprofits: evidence from home health organizations", *American Journal of Sociology*, Vol. 97 No. 4, pp. 945-969.

- Cullen, J.B. and Gordon, R.H. (2007), "Taxes and entrepreneurial risk-taking: theory and evidence for the US", *Journal of Public Economics*, Vol. 91 No. 7, pp. 1479-1505.
- Dacin, P.A., Dacin, M.T. and Matear, M. (2010), "Social entrepreneurship: why we don't need a new theory and how we move forward from here", *The Academy of Management Perspectives*, Vol. 24 No. 3, pp. 37-57.
- Dart, R. (2004), "The legitimacy of social enterprise", *Nonprofit Management and Leadership*, Vol. 14 No. 4, pp. 411-424.
- Dees, J.G. and Anderson, B.B. (2003), "For-profit social ventures", *International Journal of Entrepreneurship Education*, Vol. 2 No. 1, pp. 1-26.
- Defourny, J. and Nyssens, M. (2010), "Conceptions of social enterprise and social entrepreneurship in Europe and the United States: convergences and divergences", *Journal of Social Entrepreneurship*, Vol. 1 No. 1, pp. 32-53.
- Di Domenico, M., Tracey, P. and Haugh, H. (2009), "The dialectic of social exchange: theorizing corporate – social enterprise collaboration", *Organization Studies*, Vol. 30 No. 8, pp. 887-907.
- Dorado, S. (2006), "Social entrepreneurial ventures: different values so different process of creation, no?", *Journal of Developmental Entrepreneurship*, Vol. 11 No. 4, pp. 319-343.
- Drumwright, M.E., Cunningham, P.H. and Berger, I.E. (2004), "Social alliances: company/nonprofit collaboration", *California Management Review*, Vol. 47 No. 1, pp. 58-90.
- Eikenberry, A.M. and Kluver, J.D. (2004), "The marketization of the nonprofit sector: civil society at risk?", *Public Administration Review*, pp. 132-140.
- Estrin, S., Mickiewicz, T.M. and Stephan, U. (2013), "Entrepreneurship, social capital, and institutions: social and commercial entrepreneurship across nations", *Entrepreneurship Theory and Practice*, Vol. 37 No. 3, pp. 479-504.
- Evans, D.S. and Leighton, L.S. (1990), "Some empirical aspects of entrepreneurship", in Acs, Z.J. and David, B.A. (Eds), *The Economics of Small Firms*, Kluwer Academic Publishers, Dordrecht, pp. 79-99.
- Fossen, F.M. (2009), "Would a flat-rate tax stimulate entrepreneurship in Germany? A behavioural microsimulation analysis allowing for risk", *Fiscal Studies*, Vol. 30 No. 2, pp. 179-218.
- Gentry, W.M. and Hubbard, R.G. (2000), "Tax policy and entrepreneurial entry", *American Economic Review*, Vol. 90 No. 2, pp. 283-287.
- Gentry, W.M. and Hubbard, R.G. (2004), "Success taxes", Entrepreneurial Entry, and Innovation (No. w10551). National Bureau of Economic Research, Cambridge, MA.
- George, G. (2005), "Slack resources and the performance of privately held firms", *Academy of Management Journal*, Vol. 48 No. 4, pp. 661-676.
- Georgellis, Y. and Wall, H. (2006), "Entrepreneurship and the policy environment", *Federal Reserve Bank of St. Louis Review*, Vol. 88 No. 2, pp. 95-111.
- Gnyawali, D.R. and Fogel, D.S. (1994), "Environments for entrepreneurship development: key dimensions and research implications", *Entrepreneurship Theory and Practice*, Vol. 18 No. 4, pp. 43-62.
- Goerke, J. (2003), "Taking the quantum leap: nonprofits are now in business. An Australian perspective", *International Journal of Nonprofit and Voluntary Sector Marketing*, Vol. 8 No. 4, pp. 317-327.
- Hair, J.F., Babin, B., Money, A.H. and Samouel, P. (2003), *Essentials of Business Research Methods*, Wiley, Hoboken, NJ.
- Hamilton, B.H. (2000), "Does entrepreneurship pay? An empirical analysis of the returns to self-employment", *Journal of Political Economy*, Vol. 108 No. 3, pp. 604-631.
- Hannan, M.T. and Carroll, G. (1992), *Dynamics of Organizational Populations: Density, Legitimation, and Competition*, Oxford University Press, New York, NY.

- Hannan, M.T. and Freeman, J. (1977), "The population ecology of organizations", *American Journal of Sociology*, Vol. 82 No. 5, pp. 929-964.
- Hannan, M.T. and Freeman, J. (1987), "The ecology of organizational founding: American labor unions, 1836-1985", *American Journal of Sociology*, Vol. 92 No. 4, pp. 910-943.
- Hannan, M.T., Carroll, G.R., Dundon, E.A. and Torres, J.C. (1995), "Organizational evolution in a multinational context: entries of automobile manufacturers in Belgium, Britain, France, Germany, and Italy", *American Sociological Review*, Vol. 60 No. 4, pp. 509-528.
- Hansmann, H.B. (1980), "The role of nonprofit enterprise", *Yale Law Journal*, Vol. 89 No. 5, pp. 835-901.
- Henderson, J. and Weiler, S. (2009), "Entrepreneurs and job growth: probing the boundaries of time and space", *Economic Development Quarterly*, Vol. 24 No. 1, pp. 23-32.
- Hirth, R.A. (1999), "Consumer information and competition between nonprofit and for-profit nursing homes", *Journal of Health Economics*, Vol. 18 No. 2, pp. 219-240.
- James, E. (1989), *The Nonprofit Sector in International Perspective: Studies in Comparative Culture and Policy*, Oxford University Press, New York, NY.
- Kachlami, H.M. (2014), "The likely determinants of social entrepreneurship and policy implications", in Lundström, A., Zhou, C.H., Friedrichs, Y. and Sundin, E. (Eds), *Social Entrepreneurship: Leveraging Economic, Political and Cultural Dimensions*, Springer International Publishing, pp. 293-307.
- Kistruck, G.M. and Beamish, P.W. (2010), "The interplay of form, structure, and embeddedness in social intrapreneurship", *Entrepreneurship Theory and Practice*, Vol. 34 No. 4, pp. 735-761.
- Lakdawalla, D. and Philipson, T. (2006), "The nonprofit sector and industry performance", *Journal of Public Economics*, Vol. 90 No. 8, pp. 1681-1698.
- Loveridge, S. and Nizalov, D. (2007), "Operationalizing the entrepreneurial pipeline theory: an empirical assessment of the optimal size distribution of local firms", *Economic Development Quarterly*, Vol. 21 No. 3, pp. 244-262.
- Lumpkin, G.T., Moss, T.W., Gras, D.M., Kato, S. and Amezcua, A.S. (2013), "Entrepreneurial processes in social contexts: how are they different, if at all?", *Small Business Economics*, Vol. 40 No. 3, pp. 761-783.
- Lundström, T. and Wijkström, F. (1996), "Defining the nonprofit sector: Sweden", in Lester, M.S. and Helmut, K.A. (Eds), *Defining the Nonprofit Sector: A Cross-National Analysis*, Manchester University Press, Manchester and New York, NY.
- McMullen, J.S. (2011), "Delineating the domain of development entrepreneurship: a market-based approach to facilitating inclusive economic growth", *Entrepreneurship Theory and Practice*, Vol. 35 No. 1, pp. 185-193.
- McPherson, M. (1983), "An ecology of affiliation", *American Sociological Review*, Vol. 48 No. 4, pp. 519-532.
- Mair, J. and Marti, I. (2004), Social entrepreneurship: what are we talking about? A framework for future research (No. D/546), IESE Business School, Barcelona.
- Mair, J. and Marti, I. (2006), "Social entrepreneurship research: a source of explanation, prediction, and delight", *Journal of World Business*, Vol. 41 No. 1, pp. 36-44.
- Mair, J. and Marti, I. (2009), "Entrepreneurship in and around institutional voids: a case study from Bangladesh", *Journal of Business Venturing*, Vol. 24 No. 5, pp. 419-435.
- Mair, J., Marti, I. and Ventresca, M.J. (2012), "Building inclusive markets in rural Bangladesh: how intermediaries work institutional voids", *Academy of Management Journal*, Vol. 55 No. 4, pp. 819-850.
- Meyskens, M., Carsrud, A.L. and Cardozo, R.N. (2010), "The symbiosis of entities in the social engagement network: the role of social ventures", *Entrepreneurship & Regional Development*, Vol. 22 No. 5, pp. 425-455.
- Money, K., Money, A., Downing, S. and Hillenbrand, C. (2008), "Relationship marketing and the not-for-profit sector: an extension and application of the commitment-trust theory", in Sargeant, A. and Wymer, W. (Eds), *The Routledge Companion to Nonprofit Marketing*, Routledge, London, pp. 28-48.

- Morris, M.H., Kuratko, D.F. and Schindehutte, M. (2001), "Towards integration: understanding entrepreneurship through frameworks", *The International Journal of Entrepreneurship and Innovation*, Vol. 2 No. 1, pp. 35-49.
- Nicholls, A. (Ed.) (2006), *Social Entrepreneurship: New Models of Sustainable Social Change*, Oxford University Press, Oxford.
- Oliver, C. (1991), "Strategic responses to institutional processes", *Academy of Management Review*, Vol. 16 No. 1, pp. 145-179.
- Paarlberg, L.E. and Varda, D.M. (2009), "Community carrying capacity a network perspective", *Nonprofit and Voluntary Sector Quarterly*, Vol. 38 No. 4, pp. 597-613.
- Peredo, A.M. and Chrisman, J.J. (2006), "Toward a theory of community-based enterprise", *Academy of Management Review*, Vol. 31 No. 2, pp. 309-328.
- Peredo, A.M. and McLean, M. (2006), "Social entrepreneurship: a critical review of the concept", *Journal of World Business*, Vol. 41 No. 1, pp. 56-65.
- Rabe-Hesketh, S., Skrondal, A. and Pickles, A. (2005), "Maximum likelihood estimation of limited and discrete dependent variable models with nested random", *Journal of Econometrics*, Vol. 128 No. 2, pp. 301-323.
- Remley, D. (1996), "Relationship marketing: guaranteeing the future", *Nonprofit World*, Vol. 14 No. 5, pp. 13-16.
- Reynolds, P., Storey, D.J. and Westhead, P. (1994), "Cross-national comparisons of the variation in new firm formation rates", *Regional Studies*, Vol. 28 No. 4, pp. 443-456.
- Roberts, D. and Woods, C. (2005), "Changing the world on a shoestring: the concept of social entrepreneurship", *University of Auckland Business Review*, Vol. 7 No. 1, pp. 45-51.
- Salamon, L.M. and Anheier, H.K. (1997), *Defining the Nonprofit Sector: A Cross-National Analysis*, Manchester University Press, Manchester.
- Schmookler, J. (1966), *Invention and Economic Growth*, Harvard University Press, Cambridge, MA.
- Schramm, C. (2010), *All Entrepreneurship is Social*. *Stanford Social Innovation Review*, Spring, pp. 20-22.
- Selle, Per (1993), "Voluntary organisations and the welfare state: the case of Norway", *Voluntas*, Vol. 4 No. 1, pp. 1-15.
- Sharir, M. and Lerner, M. (2006), "Gauging the success of social ventures initiated by individual social entrepreneurs", *Journal of World Business*, Vol. 41 No. 1, pp. 6-20.
- Short, J.C., Moss, T.W. and Lumpkin, G.T. (2009), "Research in social entrepreneurship: past contributions and future opportunities", *Strategic Entrepreneurship Journal*, Vol. 3 No. 2, pp. 161-194.
- Singh, J.V. and Lumsden, C.J. (1990), "Theory and research in organizational ecology", *Annual Review of Sociology*, Vol. 16 No. 1, pp. 161-195.
- Singh, J.V., Tucker, D.J. and House, R.J. (1986), "Organizational legitimacy and the liability of newness", *Administrative Science Quarterly*, Vol. 31 No. 2, pp. 171-193.
- Storey, D.J. (1991), "The birth of new firms – does unemployment matter? A review of the evidence", *Small Business Economics*, Vol. 3 No. 3, pp. 167-178.
- Sullivan Mort, G., Weerawardena, J. and Carnegie, K. (2003), "Social entrepreneurship: towards conceptualisation", *International Journal of Nonprofit and Voluntary Sector Marketing*, Vol. 8 No. 1, pp. 76-88.
- Townsend, D.M. and Hart, T.A. (2008), "Perceived institutional ambiguity and the choice of organizational form in social entrepreneurial ventures", *Entrepreneurship Theory and Practice*, Vol. 32 No. 4, pp. 685-700.
- Tracey, P. and Phillips, N. (2007), "The distinctive challenge of educating social entrepreneurs: a postscript and rejoinder to the special issue on entrepreneurship education", *Academy of Management Learning & Education*, Vol. 6 No. 2, pp. 264-271.
- Trettin, L. and Welter, F. (2011), "Challenges for spatially oriented entrepreneurship research", *Entrepreneurship & Regional Development*, Vol. 23 Nos 7-8, pp. 575-602.

- Tucker, D.J., Singh, J.V. and Meinhard, A.G. (1990), "Organizational form, population dynamics, and institutional changes: the founding patterns of voluntary organizations", *Academy of Management Journal*, Vol. 33 No. 1, pp. 151-178.
- Valentinov, V. (2008), "The economics of nonprofit organization: in search of an integrative theory", *Journal of Economic Issues*, Vol. 42 No. 3, pp. 745-761.
- Van Ryzin, G.G., Grossman, S., DiPadova-Stocks, L. and Bergrud, E. (2009), "Portrait of the social entrepreneur: statistical evidence from a US panel", *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, Vol. 20 No. 2, pp. 129-140.
- Verheul, I., Wennekers, S., Audretsch, D. and Thurik, R. (2001), *An Eclectic Theory of Entrepreneurship: Policies, Institutions and Culture*, Discussion Paper No. 01-030/3, Tinbergen Institute, Amsterdam.
- Vidal, I. (2005), "Social enterprise and social inclusion: social enterprises in the sphere of work integration", *International Journal of Public Administration*, Vol. 28 Nos 9-10, pp. 807-825.
- Wall, H.J. (2004), "Entrepreneurship and the deregulation of banking", *Economics Letters*, Vol. 82 No. 3, pp. 333-339.
- Weerawardena, J. and Mort, G.S. (2006), "Investigating social entrepreneurship: a multidimensional model", *Journal of World Business*, Vol. 41 No. 1, pp. 21-35.
- Wennekers, S., Van Wennekers, A., Thurik, R. and Reynolds, P. (2005), "Nascent entrepreneurship and the level of economic development", *Small Business Economics*, Vol. 24 No. 3, pp. 293-309.
- Wijkström, F. (1997), "The Swedish nonprofit sector in international comparison", *Annals of Public and Cooperative Economics*, Vol. 68 No. 4, pp. 625-663.
- Wooldridge, J. (2002), *Econometric Analysis of Cross-Section and Panel Data*, MIT Press, Cambridge, MA.
- Zahra, S.A. and Wright, M. (2011), "Entrepreneurship's next act", *The Academy of Management Perspectives*, Vol. 25 No. 4, pp. 67-83.
- Zahra, S.A., Gedajlovic, E., Neubaum, D.O. and Shulman, J.M. (2009), "A typology of social entrepreneurs: motives, search processes and ethical challenges", *Journal of Business Venturing*, Vol. 24 No. 5, pp. 519-532.
- Zucker, L.G. (1989), "Combining institutional theory and population ecology: no legitimacy, no history", *American Sociological Review*, Vol. 54 No. 4, pp. 542-545.

Further reading

- Guiso, L. and Schivardi, F. (2005), "Learning to be an entrepreneur", CEPR Discussion Paper No. 5290, Centre for Economic Policy Research, London.
- Hair, J.F. Jr, Wolfinger, M., Money, A.H., Samouel, P. and Page, M.J. (2015), *Essentials of Business Research Methods*, Routledge, New York, NY.
- Jackson, L.F. (1984), "Hierarchic demand and the Engel curve for variety", *The Review of Economics and Statistics*, Vol. 66 No. 1, pp. 8-15.
- Krugman, P. (1998), "What's new about the new economic geography?", *Oxford Review of Economic Policy*, Vol. 14 No. 2, pp. 7-17.
- Lepoutre, J., Justo, R., Terjesen, S. and Bosma, N. (2013), "Designing a global standardized methodology for measuring social entrepreneurship activity: the Global Entrepreneurship Monitor social entrepreneurship study", *Small Business Economics*, Vol. 40 No. 3, pp. 693-714.

Corresponding author

Habib Kachlami can be contacted at: habib.m.kachlami@miun.se

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com