



ERASMUS UNIVERSITEIT ROTTERDAM  
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**Bachelor Thesis (International Economics and Business Economics)**

**Exploring the effects of institutional arrangements on the rate of  
social entrepreneurship: a comparative cross-country study**

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## I. Introduction

While developed countries face challenges in augmenting productivity levels to sustain economic and social wealth, developing countries are confronted with the integration of rapidly growing young adult populations into the national and global economy (Acs, Szerb & Autio, 2014). Entrepreneurship can be a central tool in addressing these complex challenges. Its role within economic systems is manifested by many scholars since abundant academic literature disclosed entrepreneurial activity as a vital source of innovation and employment to drive economic growth and social prosperity around the world (Birch, 1979; Carree & Thurik, 2003; Parker, 2004; Storey, 2016; van Stel, Carree & Thurik, 2005; Wennekers & Thurik, 1999, among others). Within the field of entrepreneurship, *social entrepreneurship* is increasingly endorsed as an alternative venture model within economies driven by its potential to specifically offer entrepreneurial solutions to sophisticated social and ecological problems that defy conventional solving efforts by governmental organisations (Estrin, Mickiewicz & Stephan, 2013; Griffiths, Gundry & Kickul, 2013; Kerlin, 2009; Shaw & Carter, 2007; Zahra et al. 2009). Recent initiatives such as the “Big Society” in the UK or “The Social Business Initiative” started by the European Commission illustrate the growing tendency of various countries to confide in the efficiency of competitive markets and self-organisation in order to improve social welfare (Goerke, 2003; Hoogendoorn, 2016; Salamon, 1999). Similarly, a growing global network of successful social enterprises (Grameen Bank, Toms Shoes) and support organisations (Skoll Centre, Ashoka Foundation, Aspen Institute) reflects the strong determination of many socially conscious individuals across the world to address social problems with innovative strategies (Marcus & Freemeth, 2009; Tracey & Jarvis, 2007). In the context of these dynamics, substantial academic interest emerged over the last two decades in exploring the determinants and drivers of social entrepreneurship (Brock, 2006; Hemingway, 2005; Mair & Martí, 2006; Short, Moss & Lumpkin 2009; Zahra et al., 2008). Comprehending these underlying factors is essential for policymakers who aim to further encourage and develop social entrepreneurial initiatives in their country.

However, despite the considerable attention, research in this field is still perceived to be at an early stage with hampered progress (Hall et al., 2010; Hoogendoorn, Pennings & Thurik, 2010; Nicholls, 2010; Choi & Majumdar, 2014). A major underlying constrain is the absence of a cohesive definition and subsequent measurement of social entrepreneurship among scholars,

originating from its multidimensional orientation towards many stakeholders (Short et al., 2009; Trexler, 2008; Zahra et al., 2009). This caused the stream of literature on social entrepreneurship to be largely confined to conceptual and theoretical work but very limited in comparative cross-country research of quantitative and more generalizable nature (Lepoutre et al., 2013; Terjesen, Hessels & Li, 2016). But, to allow research on social entrepreneurship to further advance and yield useful implications for practice, scholars must put greater emphasis on filling this important void (Terjesen, Hessels & Li, 2016). The present study shall serve as a contribution to this.

Nevertheless, recent progress has been made in closing this empirical gap in the research body. This was largely facilitated by the introduction of a harmonised dataset on international social entrepreneurship prevalence through the Global Entrepreneurship Monitor (GEM). It allowed scholars to quantitatively examine drivers and antecedents of social entrepreneurship in varying national contexts (Estrin, Mickiewicz & Stephan 2013; Griffiths, Gundry & Kickul, 2013; Mendez-Picazo et al., 2015; Puumalainen et al., 2015; Stephan, Uhlaner & Stride, 2014; Hoogendoorn, 2016). Upon exploring these drivers, a large focus was laid on institutional forces, since the significant role of institutional contexts in guiding economic behaviour has been established for many years (Baumol, 1990; North, 1990; Williamson, 2000). Prior research mainly investigated the independent effects of individual institutional factors on social entrepreneurial activity (Estrin, Mickiewicz & Stephan, 2013; Griffiths, Gundry & Kickul, 2013; Mendez-Picazo et al., 2015; Puumalainen et al., 2015; Stephan, Uhlaner & Stride, 2014; Hoogendoorn, 2016). However, given the aforementioned complex multifaceted nature of the social entrepreneurship concept, institutional analysis of social entrepreneurship requires a more systematic and inclusive approach. Therefore, this research work will add further depth to the scrutiny of this relationship by contributing a study on the combined effect of several factors that make up different institutional arrangements. In particular, the following research question shall be answered:

*How do different institutional arrangements influence social entrepreneurial activity in an economy?*

This study will attempt to do so by adopting and adjusting Stenholm, Acs & Wuebker's (2013) novel, multidimensional measure of a country's institutional environment for entrepreneurship. In their work, the scholars look at capturing a larger variation in

institutional contexts that propels both rate and quality of commercial entrepreneurial activity within a country to more precisely reveal the role that institutions play in the documented cross-national variance (Stenholm, Acs & Wuebker, 2013). Since the priority of creating social value over economic value distinguishes social entrepreneurship from commercial entrepreneurship (Lepoutre et al., 2013; Stephan, Uhlaner & Stride, 2014), it is of interest to test how such institutional arrangements relate to this specific type of entrepreneurship. Utilising and testing Stenholm, Acs & Wuebker's (2013) conceptual model that relates entrepreneurial phenomena to the regulatory, normative, and cognitive dimensions of institutions (Busenitz, Gomez & Spencer, 2000; Kostova, 1997; Scott, 1995), this study will aid in increasing the explained part of the range of effects country-level institutional infrastructure can have on social entrepreneurship. Working with the most recent available data on social entrepreneurship from the 2015 GEM Global Report, the model is tested in a global cross-national setting using a sample of 58 countries across different stages of economic development. Principal component analysis is applied to construct new variables for the respective institutional arrangements on the basis of existing institutional elements before examining their influence on social entrepreneurship within an OLS multiple regression framework.

The paper will follow a coherent structure. First, the concept of social entrepreneurship will be explained and explicitly defined for the case of this study. Next, past literature on institutional theory will be reviewed and drawn upon to construct a theoretical framework, within which different hypotheses, that detail the dimensions of the study, are formulated. Thereafter, the specific data, variables and methodology employed in testing the hypotheses are described before presenting results of their analysis. Discussing these results and their implications upon closer inspection will provide a clear answer to the research question. The paper then concludes by summarising the study's main contributions and outlining limitations as well as possible directions for future research.

## **II. Theoretical Framework**

### ***Social Entrepreneurship***

Social Entrepreneurship can be seen as a "simple term with a complex range of meanings"

(Trexler, 2008). Its multifaceted nature required a large amount of past research to focus on defining the concept of social entrepreneurship first, before being able to proceed with investigations regarding its determinants (Lepoutre et al., 2013; Terjesen, Hessels & Li, 2016). Scholars identified it to range from formal, private and profit oriented to informal, public and not-for profit oriented activities (Dacin, Dacin, & Matear, 2010; Hoogendoorn, Pennings, & Thurik, 2010; Short, Moss, & Lumpkin, 2009; Zahra et al., 2009) that are applied in various sectors, including environmental protection, health care, education or the integration of disadvantaged population groups into the economy. Nevertheless, a universal comprehension of the concept social entrepreneurship remains a subject of great difficulty and continues to inhibit fast progress in this research field. While several academics and policymakers, for example, strongly emphasise the requirement of earned income for an individual to be regarded as a social *entrepreneur* (Austin et al., 2006; Boschee & McClurg, 2003; Dorado, 2006; Thompson & Doherty, 2006), others define social entrepreneurship more generously as economically sustainable ventures that create social value (Dees, 1998a; Emerson & Twersky, 1996; Robinson, 2006), regardless of the source of revenue.

In an attempt to address this issue, Choi and Majumdar (2014) propose to contemplate social entrepreneurship as a cluster concept comprising several sub-concepts, such as social value creation, social entrepreneur, social entrepreneurship organisation, market orientation and social innovation. This approach allows to deal with the conceptual ambiguity, since an instant can be defined as social entrepreneurship by containing at least one but not necessarily all of the above mentioned properties (Hoogendoorn, 2016). Although, scholars are generally consent with the prerequisite of an explicit and dominant focus on social value creation in social entrepreneurial activities (Certo & Miller, 2008; Mair & Schoen, 2007; Peredo & Chrisman 2006; Peredo & McLean 2006; Sullivan Mort et al. 2003; Thompson, 2002), without disregarding economic value creation to ensure financial viability of the venture. Social value creation can be related to operations that are generally more other-oriented than self-oriented and cause benefits which particularly accrue to stakeholders that are outside the respective venture (Auerswald, 2009). A narrower notion of “social” refers to operations which directly address “basic human needs that remain unsatisfied by current economic or social institutions” (Seelos & Mair, 2005). Meanwhile some scholars emphasise the entrepreneurial approach to do so, meaning social entrepreneurs should still pursue their social objective through the innovative delivery of products or services (Alvord, Brown, &

Letts, 2004; Borins, 2000; Chell, Nicolopoulou, & Karatas-Özkan, 2010; Mair & Marti, 2006; Prabhu, 1999; Shane & Venkataraman, 2000).

As previously mentioned, a major constrain for progress in the field of social entrepreneurship research is the significant deviation in its meaning. However, social entrepreneurship is required to bridge these regional differences regarding its interpretation when subject to an analysis of international, comparative nature (Kerlin, 2010). Therefore, to guarantee consistency during the empirical investigation, this paper will adopt a broader definition of social entrepreneurship which has also been used in previous research (Lepoutre et al., 2013; Mair & Marti, 2006; Martin & Osberg, 2007; Short, Moss, & Lumpkin 2009; Zahra et al., 2009). Consequently, social entrepreneurship is regarded as *any kind of entrepreneurial activity, organisation or initiative that has a particularly social, environmental or community objective* (Bosma et al., 2016). This means that not all the social entrepreneurial activities under investigation necessarily encompass market oriented, income generating ventures or a rigorously innovative way in creating social value at once. Narrowing the definition further down to this level would decrease the amount of observations substantially, hampering the analysis. Nevertheless, the above definition focuses on the prevalence of newly or recently formed ventures with a primarily social goal to yield *social entrepreneurial activity*. This activity is measured by the GEM Consortium as the proportion of working-age individuals who report that they are alone, or with others, currently setting up a social enterprise or have already been operating a social enterprise up to 42 months (Bosma et al., 2016). Consequently, Social Entrepreneurial Activity (SEA), similar to Total Early-Stage Entrepreneurial Activity (TEA), is an aggregate of two distinct phases: *Nascent social entrepreneurship /social entrepreneurship in the start-up phase* (SEA-SU) and *new social entrepreneurship/ social entrepreneurship in the operational phase* (SEA-OP). To avoid double counting, an overlap is deducted from the aggregate. This is to correct for those respondents in the GEM dataset who indicate that they are involved in both of the phases. Consequently, social entrepreneurial activity is a sum of the following:

1.  $SEA = SEA-SU + SEA-OP - \text{overlap.}$

Social entrepreneurial activity will serve as the dependent variable of the empirical analysis. How it is influenced by country-level institutional arrangements will be the main research goal of this study.

### ***Institutional arrangements and social entrepreneurship***

Institutions are widely acknowledged to direct economic behaviour, including entrepreneurial activity (Baumol, 1990; North, 1990; Williamson, 2000). The abundance of academic literature in this field demonstrates that aspects like traditions and culture, regulatory infrastructure, and the availability of social and economic resources affect the development of industries as well as the performance of enterprises within those industries (Aldrich & Fiol, 1994; Baumol et al., 2007; Eckhardt & Ciuchta, 2008; Hessels, van Gelderen & Thurik, 2008; Lee, Florida & Acs, 2004; Minniti & Lévesque, 2008; Verheul et al., 2002). These institutional features drive the micro- and macroeconomic processes that influence individual economic behaviour (Aldrich, 2011), and comprise structures that promote and foster productive, value-creating entrepreneurial activity (Stenholm, Acs & Wuebker, 2013).

Entrepreneurs are often regarded as alert and capable individuals who identify opportunities that are created through dynamic environmental conditions, such as an emerging market niche (Alvarez & Barney, 2007; Kirzner, 1973). In a response to the given conditions, which are closely linked to uncertainty and risk, entrepreneurs then proactively intend to exploit these opportunities by processing the cues from the environment to turn the perceived opportunity into a viable venture proposition (Krueger, Reilly & Carsrud, 2000; McMullen & Shepherd, 2006; McMullen, Bagby, & Palich, 2008). Entrepreneurial intentions can therefore be regarded as the result of subjective, uncertainty underlying perceptions of incentives and restrictions regarding venture formation in the surrounding environment. These perceptions can be largely attributed to formal and informal institutions (North, 1990; Veciana & Urbano, 2008) which form authoritative governance structures on the basis of distinct rules, norms, values and cultural concepts to guide decision-making behaviour in a community or country. Moreover, entrepreneurial activity is often associated with higher risk levels (Baumol & Strom, 2007; Boettke & Coyne, 2003). Since institutions play an essential role in minimising uncertainties in a society (DiMaggio & Powell, 1983; Martens et al., 2007) and determine how

economic and socio-cultural factors interact in shaping entrepreneurial intentions (Krueger, Reilly & Carsrud, 2000), institutional theory provides a very useful and adequate framework for exploratory research on entrepreneurship (Bruton et al., 2010; Terjesen, Hessels & Li, 2016).

More specifically, this study will draw on the institutional theory approach developed by Scott (1995) and later adjusted by Kostova (1997) and Busenitz, Gomez & Spencer (2000). Under this approach, institutions are arranged in three pillars – regulative, cognitive and normative institutional pillars – which both individually and jointly generate incentives that encourage or discourage social and economic behaviour within the purview of these institutions. Some entrepreneurship scholars have used this approach in prior research to demonstrate the relationship between differences in such institutional arrangements and country-level variations in social entrepreneurship (Stephan, Uhlaner & Stride, 2014), representing each institutional pillar with single variables. Expanding on this, this study will construct each pillar through sets of multiple variables within an empirical framework similar to that used by Stenholm, Acs & Wuebker (2013) in their analysis of commercial entrepreneurship. Although there exists a great variety of elements that all contribute to the different institutional arrangements of a country, this study can only focus on a selection of these elements. There are two main reasons for this. First, those factors are prioritised for which data is available for most of the countries in the GEM sample and thus fit better with the chosen research framework. Second, this paper aims to concentrate on institutional elements associated with entrepreneurship in general, in order to explore the extent to which social entrepreneurship relates to entrepreneurial behaviour patterns despite the adopted broader definition. Consequently, the theoretical derivation of each institutional pillar and its implications is based on those elements selected under the mentioned criteria. Leveraging on insights from prior research, the three institutional dimensions are assumed to significantly explain differences in the social entrepreneurial prevalence across the countries under investigation. The assumed associations are summarised by the three hypotheses which are derived in the next section.



### ***Hypothesis formulation***

The regulative dimension encompasses laws, governmental regulations, policies and constitutional procedures that are directed at forging restrictions as well as incentives for individual and organizational entrepreneurial actions (Scott, 1995; Veciana & Urbano, 2008). A large range of theoretical work on the potential effects of regulative institutions on social entrepreneurship provides implications for both a positive and a negative direction of the relationship. Subsequently, both sides of the argumentation will be contemplated, resulting in two alternative hypotheses about the regulative dimension. To begin, strong regulatory arrangements are characterised by effective governments, good regulatory quality, a strong rule of law and low corruption levels. The World Bank (2018) considers those governments as effective which provide public services of high quality and adequately formulate and implement policies with credible commitment to these policies. *Institutional support theory* argues, that these kind of governments particularly stimulate social entrepreneurship through partnerships and interdependent cooperation (Matsunaga, Yamauchi, & Okuyama, 2010; Nissan, Castaño, & Carrasco, 2012; Salamon & Da Costa Nunez, 1995; Young, 2000). Under this view, governments look to address social goals more efficiently by cooperating with supporting social mission ventures (Borzaga & Defourny, 2001; Nyssens, 2006; Young, 2008). Providing structural and financial support through subsidies, grants or alternative funding, governments encourage social entrepreneurs to collectively deliver social products and services on their behalf (Young, 2000; Young, 2008). Regulatory quality determines the level of access to the different resources required to start a venture (Busenitz, Gomez & Spencer, 2000) as well as the complexity of administrative procedures to register an organisation (Verheul et al., 2002). A strong rule of law with predictable legal systems, securing stable property rights and contract enforcements are seen as important antecedents for significant value creation in an economy (Acemoglu & Johnson, 2005). In the case of social entrepreneurship, the protection of intellectual property rights, however, may not be as meaningful as in the case for commercial entrepreneurship. In fact, social innovations, such as the microcredit financing developed by Nobel prize awardee Mohammad Yunus, might be developed with the intention of adaption by other ventures in order to maximise its contribution to social value creation. Furthermore, unstable regulative arrangements might increase the opportunity cost for entrepreneurship substantially due to higher uncertainty of

the regulatory framework and a potential for corruption (Aidis, 2005; Boettke & Coyne, 2003). High levels of corruption related to non-transparent and untrustworthy enforcement of laws and regulations can constrain entrepreneurial activity (Aidis et al., 2008). More corrupt governmental organisations are also associated with a lower concern for public welfare (Djankov et al., 2002), which can lead to less structural support for social entrepreneurs. It may also constrain growth opportunities and subsequently orientation towards the scaling of social impact among social entrepreneurs (Bowen & De Clercq, 2008). Overall, institutions that establish regulative structures to ensure individuals a compensation for their efforts in creating value for society through entrepreneurial activity and innovation are considered best at promoting this behaviour (Baumol, 1990). This leads to the formulation of the first hypothesis:

*Hypothesis 1a: Regulative institutional arrangements are positively associated with the rate of social entrepreneurial activity in a country.*

On the other hand, weak regulatory arrangements might create larger incentives for the formation of social enterprises. Weaker regulations and laws in the economy concerning, for example, social or environmental standards can create socially undesirable market imperfections. When governments are then ineffective in addressing these outcomes sufficiently through public policies or welfare schemes, social entrepreneurship can be an alternative solution to these problems. Academic literature often refers to this phenomenon under *institutional void theory*. Limited government activism for social welfare and the resolution of social issues like poverty or environmental degradation leaves a *void* which needs to be filled by social entrepreneurship, creating entrepreneurial solutions to these social dilemmas (Dacin et al., 2010; Dorado & Ventresca, 2013; Kerlin, 2009; Estrin, Mickiewicz & Stephan, 2013; Mair & Marti, 2009; Zahra et al., 2009). In turn, more effective governments increase social welfare and are able to reduce the amount of social problems. This would lead to lower demand for social entrepreneurship, since there are less incentives for entrepreneurial individuals to compensate governments in creating social value. For the non-profit sector, scholars explain similar phenomena through *failure theory*. When governments fail in the provision of public and quasi-public goods and services, non-profit organisations emerge to supply the necessary goods and services instead (Matsunaga, Yamauchi, &

Okuyama, 2010; Nissan, Castaño, & Carrasco, 2012; Salamon, Sokolowski, & Anheier, 2000; Salamon, Sokolowski, & List, 2003; Weisbrod, 1977). At the same time, heavily regulated economies with high levels of bureaucracy and administrative burden related to venture formation and closure can significantly hamper individuals' intentions of starting a venture to engage in entrepreneurial activities. This line of argumentation yields the following alternative hypothesis:

*Hypothesis 1b: Regulative institutional arrangements are negatively associated with the rate of social entrepreneurial activity in a country.*

The cognitive dimension of institutions comprises the perceived reality and cognitive frameworks through which individuals interpret information. Its substance and legitimacy in a society arises from similar references or interpretations of given situations which are adopted and shared between people (Scott, 1995). That way, cultural values reflect the importance of certain values for a society, established by an aggregate of personally important matters that individuals in the society have in common (Schwartz, 2006). Cultural-cognitive arrangements therefore determine how individuals perceive their environment in a way that they find attractive opportunities to create value (Baron, 2007). This leads individuals to develop entrepreneurial intentions (Krueger, Reilly & Carsrud, 2000). Such patterns of thought are in part influenced by the level of education (Verheul et al., 2002). However, the subjective perception of entrepreneurial opportunities can also be regarded as a nexus between education and the prevalence of new venture formation (Levie & Autio, 2008). The pertinence of the identified opportunities, however, depends on another perception that is shaped by the cognitive frameworks of a society: an individual's perception of and confidence in the own level of those capabilities that required to successfully exploit the opportunity through entrepreneurial organisation (Busenitz, Gomez & Spencer, 2000; Kirzner, 1973; Shane, 2000). Elaborating on this intuition, scholars anticipated that entrepreneurial skill confidence and opportunity seeking deviate across countries (Mitchell et al., 2002), which was backed up empirically (Bosma & Levie, 2010). This underlines that cross-country variations in entrepreneurial prevalence are likely to correlate with similar differences in culture

arrangements, following the aggregate trait hypothesis<sup>1</sup> (Davidsson & Wiklund, 1997; Uhlaner & Thurik, 2007). This implication was complimented by Mai & Gan (2007) who noted that the regional, cultural embedding might even influence perceived entrepreneurial opportunities more than the political context. The aforementioned cognitive scripts, however, are not only associated with the rate of new venture formation, but also co-determine the type of entrepreneurship that individuals choose to follow (Krueger, Reilly & Carsrud, 2000). Consequently, whether individuals decide to become a social entrepreneur may also be partly explained through the aggregate trait hypothesis. Social entrepreneurs attempt to address societal problems and create social value through their own ventures (Certo & Miller, 2008; Mair & Schoen, 2007; Peredo & Chrisman 2006; Peredo & McLean 2006; Sullivan Mort et al. 2003; Thompson, 2002). Thus, they seem to combine a desire for autonomy and proactiveness, being common entrepreneurial traits (Lumpkin & Dess, 1996), with strong prosocial values (Egri & Herman, 2000; Stephan, Huysentruyt, & Van Looy, 2010). Postmaterialism is a cognitive script that embodies this combined preference. It refers to an orientation emphasising self-expression over economic security (Inglehart, 1997; Wilson, 2005) and is linked to pro-environmental attitudes, volunteering and political activism (Bekkers, 2005; Franzen & Meyer, 2010; Opp, 1990). Recent research identified it as a driver of social entrepreneurship, meaning a country with more individuals who value postmaterialism is expected to have a higher rate of social entrepreneurship (Stephan, Uhlaner & Stride, 2014). Treating it together with the other discussed aspects as elements of a country's cognitive arrangements, the following hypothesis is formulated:

*Hypothesis 2: Cognitive institutional arrangements are positively associated with the rate of social entrepreneurial activity in a country.*

The normative pillar emphasises normative systems that introduce a prescriptive, evaluative, and compulsory dimension into social life through a range of values and norms related to human behaviour (Busenitz, Gomez & Spencer, 2000; Scott, 1995). While values guide the orientation of human behaviour towards desired objectives (for example, determining

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<sup>1</sup> Aggregate trait hypothesis denotes that if there are more people in a country holding values related to entrepreneurship, there will be an increased number of people displaying entrepreneurial behaviours in that country (Davidsson, 1995; Shane, 1993).

whether an enterprise is more oriented towards making profit or creating social value), norms detail appropriate ways and routines to pursue these defined goals or standards (for example, defining how enterprises should operate to be regarded as fair) (Blake & Davis, 1964; Scott, 1995). Normative systems also influence social behaviour to a large extent through subconscious means, as they are rooted in firmly established and enduring assumptions of a cultural domain that formed over long time periods (Hofstede, 1980). These behavioural conceptions are shared and communicated within a society (Kostova, 1997) with their legitimacy being manifested in a large congruence of individuals with that behaviour (Veciana & Urbano, 2008). When embedding these insights in an entrepreneurial context, normative arrangements are likely to affect the relative social desirability of entrepreneurship as a choice of occupation (Stenholm, Acs & Wuebker, 2013). Entrepreneurial intentions are seen to be shaped by the attitudes, convictions and expectations of a social reference group (Krueger, Reilly & Carsrud, 2000). These social reference groups do not only need to be confined to personal surroundings like close family, relatives and friends but can also extend to larger scales, such as regional or national cultures (Stenholm, Acs & Wuebker, 2013). Hence, when their social environment regards entrepreneurship as a good career choice or attaches a high status to it, individuals may be more likely to become an entrepreneur (Stenholm, Acs & Wuebker, 2013). These normative arrangements are also linked to other beliefs and expectations regarding economic behaviour. Casson (2003), for example, argues that countries promoting industrial progress grant entrepreneurs a higher social status than countries which focus on retaining stability and consistency. Meanwhile, a common set of values advocating entrepreneurship can help to counteract legal limitations and cultural norms that might discourage entrepreneurial activity (Cuervo, 2005). The image of entrepreneurship in a country can also be linked to the attention towards it in the media and educational system (Verheul et al., 2002). This attention in the form of time or “entrepreneurial storytelling” may not only influence individuals to formulate entrepreneurial intentions but also determine the degree of difficulty for them to access required resources for venture creation (Lounsbury & Glynn, 2001). Shaping the normative institutional dimension in a country, the above mentioned factors are assumed to have positive relevance for any type of entrepreneurship, including that with a primary social objective. Thus, the third hypothesis argues:

*Hypothesis 3: Normative institutional arrangements are positively associated with the rate of social entrepreneurial activity in a country.*

The three proposed hypotheses set the theoretical frame of this paper. They will be tested through the empirical analysis of cross-sectional data on national institutions and social entrepreneurship. The following section describes this data in full detail.

### **III. Data**

#### ***Data Sources***

This study makes use of four data sources to obtain the relevant variables employed in the analysis. The GEM 2015 Global Report is used as the main data source. The GEM project is designed as a comprehensive assessment of the role of entrepreneurship in varying economic environments (Hechavarria & Reynolds, 2009). It is the largest current research program systematically collecting harmonised individual- and national-level data to estimate entrepreneurial engagement across the world. Its main tool of collection is the Adult Population Survey (APS) which audits entrepreneurial attitudes, activities and aspirations of individuals across countries. The survey is conducted on an annual basis, with a minimum sample size of 2,000 randomly selected adults aged between 18 and 64 in each participating country. Similar to the 2009 report, the GEM 2015 Report also includes a special study on social entrepreneurship. It includes national-level, harmonised data on the prevalence of social entrepreneurship in 58 countries<sup>2</sup>, making it the largest comparative study on social entrepreneurship to date (Bosma et al., 2016). The primary method used to identify social entrepreneurial activity is asking individuals the following question: *“Are you, alone or with others, currently trying to start or currently owning and managing any kind of activity, organization or initiative that has a particularly social, environmental or community*

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<sup>2</sup>The 58 countries are: Argentina, Australia, Barbados, Belgium, Botswana, Brazil, Bulgaria, Cameroon, Chile, China, Colombia, Croatia, Ecuador, Egypt, Estonia, Finland, Germany, Greece, Guatemala, Hungary, India, Indonesia, Iran, Ireland, Israel, Italy, Kazakhstan, South Korea, Latvia, Lebanon, Luxembourg, Macedonia, Malaysia, Mexico, Morocco, Netherlands, Norway, Panama, Peru, Philippines, Poland, Portugal, Puerto Rico, Romania, Senegal, Slovakia, Slovenia, South Africa, Spain, Switzerland, Taiwan, Thailand, Tunisia, United Kingdom, United States, Uruguay, Vietnam.

*objective?*”. After that, several follow-up questions test whether individuals meet the criteria to be classified as a social entrepreneur in the start-up phase or in the operational phase (Bosma et al., 2016). The aggregate of these categories, with an adjustment for overlap, is Total Early-stage Social Entrepreneurship, a parameter similar to Total Early-Stage Entrepreneurship (TEA), the GEM’s principle measure of entrepreneurship in the annual reports. The other data sources used are the World Government Indicators by the World Bank, the Global Competitiveness Index issued by the World Economic Forum and the World Value Survey and European Value Survey issued by their respective associations.

### ***Dependent variable***

#### *Rate of social entrepreneurial activity*

Since this study aims to investigate the influence of institutional arrangements on the rate of individuals’ engagement in social entrepreneurship, social entrepreneurial activity is chosen as the dependent variable. It is measured as the percentage of the working adult population (age 18-64) who are currently, alone or with others, starting a social enterprise or have already been operating a social enterprise up to 42 months. Table B in the Appendix summarises the rates of social entrepreneurship in each country of the sample. It clearly shows, that there are significant variations in social entrepreneurial activity across the countries.

### ***Independent variables***

#### *Regulative institutional dimension*

Four variables are used to construct the regulative dimension of country-level institutional arrangements. They are all part of the World Government Indicators issued by the World Bank Group, which evaluates each country’s performance in the respective indicator with a score between -2.5 (worst) and 2.5 (best). Government effectiveness serves as a proxy for the ability of governments in supporting social welfare. Regulatory quality is included to assess the adequacy of governmental regulations with regards to supporting entrepreneurial activity. Rule of law is used to examine the stability of the legal frameworks that secure the enforcement of contracts, protect property rights and reduce uncertainties. Lastly, control of

corruption is included as high levels of corruption significantly deteriorate regulative arrangements in a country. All of the scores were taken from the year 2015.

#### *Cognitive institutional dimension*

The cognitive dimension is forged by three variables: Perceived opportunities is expressed as the percentage of the adult population who report to see promising opportunities to start a business in the area they live in. Perceived capabilities is measured as the percentage of the adult population who believe they have the required skills and knowledge to start a business. Both of these variables are obtained from the GEM 2015 Report. While they relate to entrepreneurial phenomena in general, postmaterialism is chosen as a third variable that is more specific to social entrepreneurship. It is measured using Inglehart's (1997) 4-item version of the postmaterialism index available in the World Value Survey (WVS). The 4-item version is chosen rather than the 12-item version due to its frequent use in research practice (Bekkers, 2005; Franzen & Meyer, 2010; Moors, 2007; Uhlaner & Thurik, 2007), and a better fit with the other data. Specifically, countries' scores are taken from 6<sup>th</sup> WVS wave (years 2010-2014). In case of missing observations, the 5<sup>th</sup> WVS wave (years 2005-2009) and 2008 European Value Survey (EVS) were used. Research revealed that postmaterialism seems highly stable and changes primarily through intergenerational replacement and socialization rather than through intra-individual value changes (Inglehart, 2008; Kroh, 2009).

#### *Normative institutional dimension*

The three variables chosen to capture the influence of norms and values within institutional arrangements on social entrepreneurship in a country are all retrieved from the 2015 GEM report. They all embody a society's perceptions of entrepreneurship as an occupation or even reflection of personality, and are thus considered to significantly shape individual's intentions of becoming a (social) entrepreneur. The social status of entrepreneurship is measured through the proportion of working age individuals who concur with the allegation that people in their country attach a high status to successful entrepreneurs. The perception of entrepreneurship as a good career choice is estimated through the percentage of the adult population sharing the opinion that entrepreneurship is a good career choice. The level of perceived media attention paid to entrepreneurship is measured through the percentage of



the adult population who agree with the statement that in their country they will often see stories in the public media about successful new businesses.

All of the employed variables with their respective descriptions and sources are summarised in Table A (Appendix). The descriptive statistics for each of the employed variables are displayed in Table 1.

**Table 1:** Descriptive Statistics of each variable employed in the analysis

Dimension	Variable	Obs.	Mean	Std. Dev.	Min	Max	Cronbach's Alpha
	SEA	58	5.66	3.879	1.0	18.1	
Regulative	Government effectiveness	58	0.60	0.779	-0.773	1.998	0.98
	Regulatory quality	58	0.58	0.847	-1.312	1.846	
	Rule of law	58	0.48	0.932	-1.029	2.063	
	Control of corruption	58	0.42	0.980	-1.074	2.275	
Cognitive	Opportunity perception	58	41.90	13.385	14.2	70.2	0.55
	Capabilities perception	58	50.02	13.805	27.4	89	
	Postmaterialism	52	10.54	6.715	0.9	30	
Normative	High status	56	67.69	11.184	42.3	86.2	0.65
	Good career choice	56	60.74	13.463	33.2	95.6	
	Media attention	54	61.46	12.173	33.4	81.5	

The statistics show considerable variation in the rate of social entrepreneurial activity, ranging from 1.3% in Morocco to 21.2% in Senegal. The same holds for the rest of the variables, suggesting that there are also remarkable differences in the institutional arrangements across the investigated countries. This study's analysis will reveal whether the differences in social entrepreneurial prevalence and institutional arrangements can be significantly related to each other. There are some missing observations for some of the variables, reducing the initial sample size of 58 countries to the final sample size of the analysis of 50 countries. Subsequently, Barbados, Botswana, Cameroon, Lebanon, Norway, Panama, Puerto Rico and Senegal were excluded from the analysis. This is not expected to drastically change the results of analysis, since the dropped countries cover all of the three stages of economic development and vary quite significantly in their rate of social entrepreneurial activity (i.e. the sample variation is assumed to remain more or less the same).

Furthermore, Cronbach's alpha (Cronbach, 1951) was calculated to assess the internal consistency of the different variables selected for the analysis. Internal consistency refers to the extent to which all the tested variables measure the same construct, i.e. in this case the

respective institutional pillar. An alpha score above 0.7 usually indicates good internal consistency, however, lower thresholds can be regarded acceptable under certain circumstances (Santos, 1999). As expected, the four world government indicators chosen to capture the regulatory dimension show high internal consistency and thus prove to be an appropriate combination of variables to construct the regulative pillar. Meanwhile, the variables constructing the cognitive and normative pillar are not as consistent in measuring the same, respective concept. Nevertheless, their respective scores can still be considered as acceptable, particularly in this context, since cognitive and normative institutional dimensions can be seen as larger conceptual domains than the regulatory dimension. There is a greater variety in cognitive scripts or norms and values in comparison to regulatory instruments. Although each regarded as a cognitive script, the perception of venture opportunities, the confidence in own skill sets and postmaterialistic attitudes are concepts that are quite different from each other, resulting in a lower Cronbach's alpha for the cognitive dimension (0.55). To further validate the institutional arrangements chosen for this study further, a correlation matrix was computed. It is shown in table 2 below.

**Table 2:** Bivariate correlation between the dependent and independent variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Total SEA	1.000										
2. Government effectiveness	0.266	1.000									
3. Regulatory quality	0.362	0.903	1.000								
4. Rule of law	0.321	0.963	0.931	1.000							
5. Control of corruption	0.359	0.930	0.873	0.971	1.000						
6. Opportunity perception	0.400	0.001	0.006	0.036	0.140	1.000					
7. Capability perception	0.187	-0.483	-0.459	-0.435	-0.342	0.448	1.000				
8. Postmaterialism	0.244	0.440	0.450	0.444	0.507	0.342	-0.006	1.000			
9. High status	0.158	-0.077	-0.035	-0.024	0.013	0.381	0.169	-0.019	1.000		
10. Good career choice	-0.080	-0.535	-0.404	-0.477	-0.459	0.293	0.459	-0.187	0.354	1.000	
11. Media attention	0.052	-0.105	-0.139	-0.143	-0.116	0.353	0.267	-0.063	0.411	0.439	1.000

The respective variables within each institutional dimension show significant correlations, underlining their feasibility in representing the respective institutional dimension. The next

section describes the statistical methods applied to transform these variable correlations into new variables which summarise their information.

#### IV. Methodology

As mentioned in the introduction, this study's analysis follows a two-step methodology, similar to that developed by Stenholm, Acs & Wuebker (2013) with specific adjustments. In the first step, each of the three institutional dimensions is constructed through principal component analysis (PCA). This statistical method helps to transform a correlated set of variables into a smaller set of independent variables called principal components (Pearson, 1901). In other words, the information of a respective variable group is merged into one component summarising this information as linear combinations. The scores of each institutional pillar element are based on component weights of the ten variables described above. Component rotation with Kaiser Normalisation will reveal which variables load most on a respective component, uncovering the underlying component structure of the analysis. Since the variables are partly correlated beyond their respective institutional dimensions, both orthogonal (varimax) and oblique (promax) component rotation will be used. On the basis of the revealed three-component structure, the scores for each component will be predicted to generate three new variables that each represent one of the institutional pillars. In the second step, the three hypotheses are tested through OLS multiple regression analysis. Specifically, social entrepreneurial activity is regressed on each of the newly constructed institutional variables individually in single models as well as on the three dimensions combined in a full model. The regression function of the full model is specified below:

$$2. \quad SEA_i = \alpha + \beta_1 * REG_i + \beta_2 * COG_i + \beta_3 * NOR_i + u_i,$$

where  $REG_i$  is a country  $i$ 's score on the regulative institutional dimension,  $COG_i$  is a country  $i$ 's score on the cognitive dimension and  $NOR_i$  is a country  $i$ 's score on the normative institutional dimension.

All of the regressions will be carried out with the use of robust standard errors. By constructing the three institutional dimensions with a large set of variables and thus relating these variables

to social entrepreneurship, the analysis of this paper is aimed to explain a larger part of the cross-national variation in social entrepreneurial prevalence within the context of institutional theory. The primarily conducted principal component analysis is especially useful, since it bypasses potential problems of multicollinearity in the regression while still maintaining all of the independent variables' information and their relationship with the dependent variable. The results of the analysis following the outlined methodology are presented in the next section.

**V. Results**

Table 3 details the results of principal component analysis using varimax- and promax-rotation. As intended, the analysis revealed three components with an Eigenvalue above 1, cumulatively capturing 79.04% of the variance. A Kaiser-Meyer-Olkin (KMO) value (Cerny & Kaiser, 1977; Kaiser, 1974) of 0.78 demonstrates that most of this variance is uniquely captured, emphasising the adequacy of the variable sample selected for the analysis. All of the variables load most on their associated component and thus corroborate their selection for the analysis.

**Table 3:** Results of principal component analysis with varimax- and promax-rotation of the variables constructing the institutional arrangements for social entrepreneurial activity

	Regulative	Cognitive	Normative
Government effectiveness	0.47		
Regulatory quality	0.45		
Rule of law	0.47		
Control of corruption	0.46		
Perceived opportunities		0.60	
Perceived capabilities		0.53	
Postmaterialism		0.58	
High status			0.64
Good career choice			0.38
Media attention			0.60
Proportion of variance explained	46.47	22.06	10.52

KMO = 0.78

The component loadings are strongest for the cognitive dimension with rather equal scores among the three variables. For the regulative dimension, the loadings are a bit lower with also

little deviation among them. However, this component explains nearly half of the variance in the ten variables employed. The normative dimension has considerably higher loadings for high status and media attention than for good career choice. Nevertheless, the revealed, overall component structure follows the expected pattern. Based on these results, the country-level scores for each of the three components were predicted, generating three new variables that each capture the regulative, cognitive and normative institutional arrangements of a country, respectively. Following this, social entrepreneurial activity was regressed on these new variables in multiple OLS regressions in order to test the hypotheses that were formulated in the theoretical framework. The regression results are summarised in Table 4.

**Table 4:** OLS multiple regression results: Explaining social entrepreneurial activity through country-level institutional arrangements

SEA	Model I	Model II	Model III	Model IV
Regulative institutions	0.5054**			0.5097**
Cognitive institutions		1.1290***		1.0985***
Normative institutions			0.1477	0.0403
Constant	5.566***	5.566***	5.566***	5.566***
N	50	50	50	50
R <sup>2</sup>	0.0872	0.1527	0.0031	0.2467

\*\*\*p<0.01; \*\*p<0.05; \*p<0.1

While the first three models assessed the single relationships between each institutional pillar and social entrepreneurship, the last model examined their effect alongside each other. The outcomes reveal mixed results for the link between a country’s institutional arrangements and its level of social entrepreneurial activity. Both in the single and full model, country-level regulative institutions are positively associated with social entrepreneurial activity. In both models, this association is significant at a 5% level. This result supports hypothesis 1a and institutional support theory and opposes hypothesis 1b together with institutional void theory, suggesting that effective government activism, a stable legal and regulatory framework and low corruption levels in combination have a positive influence on social entrepreneurial activity in a country. Analogue to that, cognitive institutions are also positively associated with social entrepreneurial activity in a country. This association is even more robust, being significant at a 1% level in both the single and full model. Therefore, hypothesis

2 can also be accepted, noting that entrepreneurial mind-sets and prosocial attitudes together stimulate social entrepreneurial engagement. Moreover, as a single variable, cognitive institutions explain 15.27% of the variance in social entrepreneurial activity, making it the variable with the highest explanatory power out of the three. Hypotheses 3 is not supported by the results. In contrast to the prediction, normative institutions show no significant effect on social entrepreneurial activity in a country. This holds for both the single and the full model. Normative institutions alone also barely explain any of the variance (0.31%) in social entrepreneurship. In the following section, the presented results will be discussed in greater depth.

## **VI. Discussion**

The main objective of this study is to explain how different institutional arrangements influence the prevalence of social entrepreneurial activity in a country. To do so, the paper advances a more comprehensive, multidimensional measure of the institutional environment in a country and relates it to the observed number of individuals working as a social entrepreneur. Generally speaking, the prevalence of social entrepreneurial activity is driven by regulative and cognitive institutional arrangements, but is left unaffected by the normative dimensions of national institutions. These associations rest on specific interrelations between the sub-dimensions of each institutional arrangement of a country and social entrepreneurship.

Countries with strong and transparent regulatory institutions indeed provide favourable conditions for individuals to start and operate a social venture. Consequently, they are expected to experience higher levels of social entrepreneurial activity. Particularly, it is the quality of government activism and regulations combined with a high degree of stability and transparency of the existing legal infrastructure that is evident to stimulate social entrepreneurship. In line with prior research (Hoogendoorn, 2016; Stephan, Uhlaner & Stride, 2014), these results provide further, elaborated evidence for the institutional support theory, demonstrating that it is not a void of social welfare support by governance bodies urging social

entrepreneurs to step in on their behalf but rather the presence of effective policy schemes that align with non-governmental social venture activities to improve wellbeing in a country. However, there can be no inferences made about causality, implying that better regulative arrangements cause individuals to become social entrepreneurs. Rather, such an environment merely increases the likelihood of such an incidence. Moreover, the finding could suggest that individuals create social ventures in countries that show stronger support for such initiatives but then do not only address societal problems in their domestic country. Rather, they might also try to create social value in countries where these regulative arrangements are not as advanced. The cases of 'Tom's Shoes' or the 'Grameen Foundation' are examples for social ventures that were created and are registered in a wealthier country (United States), but aim to solve social issues in less developed countries.

Cognitive institutional arrangements seem to have the largest positive influence on individuals to formulate social entrepreneurial intentions and start their own venture. This association is the most robust, with the cognitive coefficients leading both in magnitude and statistical significance compared to all other coefficients in the regression models. In particular, positive perceptions and confident mind-sets seem to make individuals more likely to get involved in leading corporate activities with a social objective. Since any form of entrepreneurship demands a large degree of autonomy and thus greater responsibility but consequently also involves larger uncertainty, such cognitive scripts seem to play a central role in the decision of becoming a social entrepreneur. Meanwhile, these entrepreneurial mind-sets do well align with postmaterialistic attitudes. When looking at the combined result of these scripts, it is not surprising that individuals who are attentive and confident and who put greater emphasis on autonomy and self-expression rather than economic security in their life are not only very likely to start their own venture but also define the creation of social value as its primary objective. These institutional arrangements can also be seen as an appeal to an intrinsic motivation related to social entrepreneurship, triggering the most stable intention to make social impact in self-designed approach out of three institutional dimensions. The significant impact of these intrinsic motivations is especially underscored when comparing it to the observed effects of more extrinsic motivations that are partly created by a country's normative institutional framework.

There is no significant association found between normative arrangements and social entrepreneurial activity. Inferring from this, individuals are not more likely become social entrepreneurs if the rest of society attaches a higher social status to their person given their activity, regards their form of occupation as a good career choice or receive more attention by media. Instead, social entrepreneurs seem to engage social value creating activities independent of these circumstances. Although anticipated differently in the hypothesis formulation, this observation can be explained. Social entrepreneurs might possess a special set of personal characteristics, like greater humbleness, integrity or unselfishness. This might lead them to formulate social entrepreneurial intentions without the pursuit of financial rewards or public recognition, but rather of personal fulfilment and social impact. The aforementioned significant, positive association between social entrepreneurship and postmaterialistic attitudes supports this line of thought. Future research could delve further into these specifics, investigating the incentives relating personal fulfilment for individuals provided by social entrepreneurship and whether these incentives are strong enough to attract people to work as an entrepreneur who otherwise would have never chosen self-employment as an occupational option.

Lastly, the proposed relationship between national institutions and social entrepreneurship must be viewed in a distinct light. Most of the variables selected to construct each institutional pillar are elements that have been related to entrepreneurship in general in academic literature. Basing the institutional analysis of social entrepreneurship on such variables was therefore intended to provide insights about the extent to which social entrepreneurship relates to these entrepreneurial elements in institutions and thus follows entrepreneurial behaviour patterns. This is particularly interesting, since the social entrepreneurship measure employed for this study does not exclusively include market-oriented and innovative activities. Nevertheless, the results suggest that the self-organisation of private and other non-governmental around social challenges indeed follows entrepreneurial behaviours to a significant extent. Such behaviours include the appreciation of stable property rights and contract enforcement or a larger focus of attention on business opportunities and capabilities required to pursue them.



### ***Limitations and suggestions for further research***

Although the study revealed significant results, its implications are bound to some limitations. A first limitation is set by the utilised data set. The results are based on subjective, self-reporting data. As aforementioned, social entrepreneurship is a weakly defined concept contingent on different conceptions of social value depending on the varying regional and national context. This adds a relatively large level of statistical uncertainty to the study. Furthermore, all variables are observed at one point in time (2015). While for determining institutional arrangements this is not as problematic, as they are not bound to short-term fluctuations but rather result from medium- and long-term processes, social entrepreneurial prevalence can change within few years. Together with expanding the cohort of countries, investigating the development of their relationship over a longer period of time, yielding more observations, would validate the analysis substantially. Although the 2015 GEM data set substantially improved in comparison to the 2009 data set in terms of a larger and more balanced sample of countries across all stages of economic development, there is still an overrepresentation of high-income countries. This influences the results and thus constrains the universal applicability of their implications. In general, the results are subject to the variables chosen to construct each institutional pillar with. Changing the compositions of each pillar with different, larger, variable combinations would further substantiate the scrutiny of the relationship between institutions and social entrepreneurship on a country level. Particularly for the cognitive and normative institutions, main emphasis was laid on entrepreneurial aspects of these institutions in order to find out, to what extent national institutions influence the entrepreneurial part of social entrepreneurship. However, the constructed pillars did not embody the effects of other cognitive and normative elements like human capital, social capital or socially supportive networks (e.g. the degree of volunteering; the strength of civil society), as well as emerging social movements which might create novel entrepreneurial opportunities (Sine & Lee, 2009). This was mainly due to the absence of harmonised data on the sample size desired for this study. Since these elements are viewed to impact entrepreneurial activity and opportunity recognition (Davidsson & Honig, 2003; De Carolis & Saporito, 2006), their role in shaping cognitive and normative institutional arrangements should be investigated in further research, once feasible data is available for a larger amount of countries. Lastly, this study only provides insights on the quantity of social

entrepreneurship in a country, influenced by different institutional arrangements. Future research, however, should also try to focus on examining the quality of social entrepreneurship. Research topics could be to test whether social entrepreneurship can be empirically proven to successfully address public goals on large scale as well exploring those factors that help social enterprises to create very large social value.

## **VII. Conclusion**

Social and environmental problems are pervasive around the world, demanding endeavours that focus on addressing these issues. The self-organisation by financially viable private and other non-governmental parties with a predominant objective of social value creation has proven its potential to be an alternative solution to these problems. Policymakers who seek to encourage such social entrepreneurial initiatives require a fundamental understanding of the underlying factors that drive individuals to engage in this particular type of economic behaviour. An emerging stream of academic literature already identified individual formal and informal institutions as an important driver. Expanding on these insights, this study incorporates many institutional factors to build a three dimensional construct of national institutions resting on regulative, cognitive and normative pillars, in order to precisely explain how different institutional arrangements in a country affect its prevalence of social entrepreneurial activity. To test this in the form of three hypotheses, data on 58 countries from most recent GEM report on social entrepreneurship was analysed. While using the newest data available and thus providing new insights regarding the state of social entrepreneurship around the world, this study also makes an important attempt in further filling the gap of empirical, cross-country comparative work in the field of social entrepreneurship research. The results of this study demonstrate that different institutional arrangements have different effects on social entrepreneurial activity. In detail, better regulative institutional arrangements, marked by a government that effectively supports social welfare and creates sound policies in combination with a reliable set of transparent laws and regulations that are not undermined by corruption, are associated with higher levels of social entrepreneurial activity. This demonstrates that social entrepreneurs operate in cooperation with stable governments rather than working on their behalf. Likewise, a country

with a larger population share that is confident about its level of the skills and knowledge required for entrepreneurship as well as its ability to identify opportunities while emphasising self-expression and quality of life over economic security is expected to include more individuals who work as social entrepreneurs. Normative institutional structures in a country, on the other hand, do not have significant influences on the incidence of social entrepreneurship. It seems that a high social status attached to entrepreneurship as an occupation and larger attention paid to it by the media does not increase the likelihood of individuals to start a social venture. Subsequently, rather than promoting entrepreneurship in the public, policymakers who aim to stimulate social entrepreneurship should work towards establishing an effective regulative framework that supports social welfare together with educating individuals about entrepreneurship as a professional field. This fosters the intrinsic motivation in a society, which seems to drive social entrepreneurship much more than extrinsic motivation sourcing from public appraisal. This paper hopefully encourages social entrepreneurship scholarship to advance in the conceptual development, refinement, and empirical testing of the multi-dimensional depictions of institutional environments proved to explain cross-country fluctuations in social entrepreneurial activity. Capturing the multi-dimensional ways of impact by institutional arrangements helps to answer the call for more comprehensive and nuanced scrutiny of the contextual drivers of social entrepreneurship, with considerable scholarly and practical merit. This study served as a first impetus to accelerate this process, which is essential in propelling the in-depth comprehension of social entrepreneurship forward.

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## Appendix

**Table A:** Variables and data sources used in measuring the institutional environment for social entrepreneurial activity

Dimension	Variable	Description	Data Source
Dependent variable	DV1	<i>Social entrepreneurial activity</i> indicates the percentage of the population aged 18-64 who you, alone or with others, currently trying to start or currently owning and managing any kind of activity, organization or initiative that has a particularly social, environmental or community objective.	GEM
Regulatory	Reg1	<i>Government Effectiveness</i> captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.	WGI
	Reg2	<i>Regulatory Quality</i> captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.	WGI
	Reg3	<i>Rule of Law</i> captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.	WGI
	Reg4	<i>Control of Corruption</i> captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.	WGI
Cognitive	Cog1	<i>Perceived opportunities</i> indicates the percentage of the population aged 18-64 who see good opportunities for starting a business in the area in which they live.	GEM
	Cog2	<i>Perceived capabilities</i> measures the percentage of the population aged 18-64 who believe that they have the required skills and knowledge to start a business.	GEM
	Cog3	<i>Postmaterialism</i> indicates the percentage of individuals in each country's WVS sample who were scored as postmaterialists.	WVS/ EVS
Normative	Nor1	<i>High status</i> indicates the percentage of the population aged 18-64 who agree with the statement that in their country people attach high status to successful entrepreneurs.	GEM
	Nor2	<i>Good career choice</i> indicates the percentage of the population aged 18-64 who believe entrepreneurship is a good career choice	GEM
	Nor3	<i>Media attention</i> measures the percentage of the adult population who agree with the statement that in their country they will often see stories in the public media about successful new businesses.	GEM

GEM = Global Entrepreneurship Monitor (Bosma et al., 2016)

WGI = World Government Indicators (The World Bank., 2016)

WVS = World Value Survey (World Value Survey, 2014)

EVS = European Value Survey (European Value Survey, 2008)

**Table B:** Prevalence of social entrepreneurial activity per country (% of adult population), by stage of economic development

Factor-driven economies			Efficiency-driven economies			Innovation-driven economies					
Country	SEA-SU	SEA-OP	Total SEA	Country	SEA-SU	SEA-OP	Total SEA	Country	SEA-SU	SEA-OP	Total SEA
Botswana	2.90	4.10	6.20	Argentina	2.20	2.90	4.60	Australia	4.50	8.70	11.10
Cameroon	6.00	3.30	8.50	Barbados	0.80	0.50	1.10	Belgium	3.10	4.00	6.20
India	3.80	5.80	6.60	Brazil	0.50	2.20	2.50	Estonia	4.00	4.90	7.40
Iran	1.30	0.40	1.70	Bulgaria	0.60	0.70	1.00	Finland	4.90	3.50	5.90
Kazakhstan	2.10	1.50	3.10	Chile	8.40	6.30	11.50	Germany	0.80	1.50	2.20
Philippines	7.10	7.50	10.10	China	5.50	2.90	6.60	Greece	1.10	0.90	1.60
Senegal	7.20	14.00	18.10	Colombia	8.70	5.90	10.80	Ireland	4.90	8.40	11.10
Vietnam	1.10	0.60	1.40	Croatia	6.10	2.10	7.00	Israel	6.80	10.60	12.80
				Ecuador	1.60	1.90	2.60	Italy	2.30	4.10	5.50
				Egypt	2.20	2.10	3.40	Korea, Rep.	0.20	1.30	1.50
				Guatemala	4.20	1.60	5.00	Luxembourg	7.40	10.30	13.80
				Hungary	9.70	2.90	11.30	Netherlands	2.60	2.20	3.60
				Indonesia	1.60	2.30	3.00	Norway	0.40	7.00	7.10
				Latvia	0.90	2.20	2.80	Portugal	2.70	2.50	4.50
				Lebanon	3.00	1.40	4.10	Puerto Rico	2.30	2.10	3.20
				Macedonia	2.00	1.30	3.10	Slovakia	3.90	4.10	6.40
				Malaysia	0.70	1.40	1.70	Slovenia	1.70	3.40	4.60
				Mexico	2.20	1.40	2.70	Spain	0.90	0.70	1.30
				Morocco	0.70	0.60	1.10	Sweden	3.10	5.30	6.90
				Panama	0.60	1.40	1.80	Switzerland	2.40	5.10	6.60
				Peru	10.10	5.90	13.10	Taiwan	0.50	1.00	1.30
				Poland	1.40	6.90	7.50	United Kingdom	2.30	4.20	5.40
				Romania	2.50	2.90	4.80	United States	5.70	8.40	11.00
				South Africa	1.60	2.30	2.90				
				Thailand	2.20	1.80	2.90				
				Tunisia	2.50	4.60	6.30				
				Uruguay	2.70	5.00	6.50				