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## **Economic Inequality and Social Entrepreneurship**

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## **Economic Inequality and Social Entrepreneurship**

### **Abstract**

This article explores the extent to which income inequality and income mobility—both considered indicators of economic inequality and conditions of formal regulatory institutions (government activism)—facilitate or constrain the emergence of social entrepreneurship. Using 77,983 individual-level responses obtained from the Global Entrepreneurship Monitor (GEM) survey of 26 countries, and supplementing with country-level data obtained from the Global Competitiveness Report of the World Economic Forum, our results from multilevel analyses demonstrate that country-level income inequality increases the likelihood of individual-level engagement in social entrepreneurship, while income mobility decreases this likelihood. Further, income mobility negatively moderates the influence of income inequality on social entrepreneurship, such that the condition of low-income mobility and high-income inequality is a stronger predictor of social entrepreneurship. We discuss implications and limitations of our study, and suggest avenues for future research.

**Keywords:** Economic Inequality, Income Inequality, Income Mobility, Social Entrepreneurship, Multi-Level Studies

The form of entrepreneurship that acts as a catalyst for *economic* and *social change*—often called social entrepreneurship (SE)—is gaining momentum as an area of scholarly inquiry (Dacin, Dacin, & Tracey, 2011; Mair & Martí, 2006; Short, Moss, & Lumpkin, 2009). The presence of social objectives stimulates motivation for social entrepreneurs and differentiates them from commercial entrepreneurs (Nicholls, 2008). While commercial entrepreneurship has been well established as a stream of business research, social entrepreneurship has been gaining attention due to its potential for addressing social problems such as poverty and illiteracy (Estrin, Mickiewicz, & Stephan, 2013).

While extant research has examined what contextual influences enable individuals to undertake commercial entrepreneurship (Autio & Acs, 2010), their effects on SE need further research (Estrin et al., 2013; Stephan & Uhlaner, 2010). Our study considers income inequality and income mobility, both important contextual influences that lead to economic inequality and function as indicators of social sustainability (Corrigan et al., 2014). One challenge in contextualizing entrepreneurship is to make entrepreneurship theory more context sensitive (Whetten, 2009; Welter, 2011). While extant research has examined the role of economic inequality in enhancing well-being in society, this line of inquiry has not studied the extent to which economic inequality influences social entrepreneurship (Bapuji et al., 2015). The influence of the external context specifically on SE represents an under researched area (Bacq & Janssen, 2011; Estrin et al., 2013). The purpose of our study is to understand the influence of income inequality and mobility on SE.

We draw on insights from institutional theory (North, 2005; Scott, 1995) to develop income inequality and mobility as national-level institutional conditions of economic inequality, which are antecedents of individuals' engagement in SE (Stephan, Uhlaner, & Stride, 2014). Institutional

conditions of high-income inequality and low-income mobility may be deficiencies in the institutional context caused by regulations and rules (Welter, 2011). Since contexts are intertwined and cut across multiple levels, entailed theory needs to apply a multilevel perspective (Welter, 2011). We develop a multilevel model that proposes both main and interactive effects of income inequality and income mobility on individual SE. Our findings add to the growing research applying insights from institutional theory to understand and explain phenomena related to business and society (Brammer, Jackson, & Matten, 2012; Crane et al., 2016).

This study of institutional conditions that are reflections of the role of formal, regulatory institutions allows us to explain the influence of income inequality and mobility on individual behavior such as SE. As in the *institutional void* perspective, SE motivation increases in contexts where resources are scarce and social problems are abundant (Dacin, Dacin, & Matear, 2010; Estin et al., 2013; Stephan et al., 2014). Contexts where governments are less active may trigger a greater demand for SE (Dacin et al., 2010; Zahra et al., 2009). Likewise, we extend the understanding of the *institutional support* perspective proposed by Stephan et al. (2014), to include conditions in which formal institutions easily provide access to resources. We consider institutional conditions of income inequality and mobility as motivational stimulants for social entrepreneurs (Stephan et al., 2014). We find evidence of greater likelihood of individuals engaging in social entrepreneurship in societies where income inequality is high. This effect is stronger in societies where income inequality is high and income mobility is low.

We contribute to the literature in the following manner. First, in response to the call by Bapuji (2015) for expanded conceptualization, we contribute to the conceptual clarity of economic inequality with separate empirical examinations of income inequality and income mobility (consequences of resource dispersion and resource endowments respectively, which contribute to

economic inequality). Second, by empirically showing that the extent of income mobility moderates income inequality in a country to influence social entrepreneurship, we establish the boundary conditions of the effect of economic inequality (conditions as a consequence of formal institutions) on SE. In this regard, we address the question of the extent to which economic inequality affects the likelihood of individuals engaging in social entrepreneurship. More broadly, our empirical examination responds to recent calls for greater consideration of the impact of context on entrepreneurial behavior (Welter, 2011; Zahra & Wright, 2011).

### **Social Entrepreneurship**

Social entrepreneurship is defined as the recognition, evaluation, and exploitation of opportunities stemming from the basic and long-standing needs of society, which subsequently result in the creation and establishment of social values (Austin, Stevenson, & Wei-Skillern, 2006). Such social-value creation for entrepreneurs involves solving and fulfilling the basic needs of society such as food, shelter, education, and basic health and hygiene services. Social entrepreneurs, therefore, address social needs that ventures focus primarily on profits do not service (McMullen 2011), implying that a social mission is central to how they perceive and assess opportunities.

The social entrepreneurial process centers on the opportunity to “meet a social need in a sustainable manner, and thus to alleviate social problems” (Mair & Martí, 2004, p. 3). Alvord, Brown, and Letts (2002) suggested two important ways social entrepreneurs achieve their goals, by building local capabilities and capacities, and giving voice to marginalized groups. Therefore, social entrepreneurship is a process that involves purposeful individuals (social entrepreneurs) engaging in behaviors (social entrepreneurial behaviors) leading to the formation of social enterprises (Mair & Noboa, 2006). Different definitions of social entrepreneurship exist. One group refers to social entrepreneurship as nonprofit enterprises in search of alternative funding

strategies and management schemes to create social value (Austin et al., 2006). A second group considers it the socially responsible practice of commercial businesses (Sagawa & Segal, 2000). A third group views it as a means to alleviate social concerns and facilitate social transformation (Alvord, Brown, & Letts, 2004). We develop our framework based on the understanding that social entrepreneurship is a means to alleviate social concerns and facilitate social transformation.

### **Economic Inequality**

Economic inequality typically describes the conditions that separate individuals in terms of income and wealth, and all countries have some form of economic inequality. Traditionally, it is a measure of how unevenly wealth and income are distributed among the citizens of a country (Xavier-Oliveira, Laplume, & Pathak, 2015). The so-called Kuznets hypothesis dominated the early scholarship on the evolution of economic inequality in the process of economic development. Using cross-country and time-series data, Simon Kuznets (1963) found an inverted U-shaped relationship between economic inequality and GNP per capita. However, there is no widespread consensus regarding either direct or inverse causality between economic growth and inequality (Mankiw, 2013).

However, extant research shows the negative consequences of economic inequality on issues such as health, education, and law enforcement (Neckerman & Torche, 2007). Social issues such as mental illness, societal violence, imprisonment, lack of trust, teenage births, obesity, drug abuse, and poor educational performance of school children are more common in societies that are economically unequal (Wilkinson & Pickett, 2009). High inequality also deteriorates conditions and increases infant mortality and crime (Stiglitz, 2012; Wilkinson & Pickett, 2009).

Despite the literature on the consequences of economic inequality described above, very little is known about the organizational consequences of societal-level economic inequality (Bapuji

& Neville, 2015). Specifically, the growing interest in the interface between economic inequality and business suggests a need, confirmed in extant literature, to explore the following lines of enquiry. First is a need to expand the conceptualization of economic inequality, because limiting its definition to only income inequality may polarize discussions of this phenomenon (Bapuji, 2015). Bapuji (2015) defines economic inequality as “uneven dispersion in resource endowments, access to productive resources, and rewards for labour in a social collective that limits the fulfilment of human functions” (p. 1061). Second, high levels of societal economic inequality can give rise to social movements and growth of alternative forms of organizations (Bapuji & Neville, 2015). By applying insights from institutional theory, we first distinguish income inequality and income mobility as consequences of formal institutions. We then use the above understanding to predict the likelihood of individuals engaging in SE.

### **Theoretical Background and Hypothesis Development**

As key aspects of societal structure, institutions act as guides for and constraints on behavior (North, 2005; Scott, 2005). They are taken-for-granted rules that individuals can explicitly perceive, and act as guidelines for individuals’ actions (Powell & DiMaggio, 1991). Formal institutions are incentives and constraints that arise from government regulation (Bruton, Ahlstrom, & Li, 2010; Scott, 1995, 2005). These institutions are political and economic regulations or rules that create or restrict opportunities for entrepreneurs (Welter, 2011). Government activism is the extent to which a country’s formal institutions redistribute economic wealth through progressive tax structures and regulations, and ensure adequate spending to provide for the common welfare of its citizens (Aidis, Estrin, & Mickiewicz, 2012; Castles & Dowrick, 1990; Stephan et al., 2014). It thus reflects a government’s ability (or lack of it) to address social concerns and provide public goods to its citizens (Stephan et al., 2014). We argue that consequences of



government activism (or lack of it) lead to institutional conditions of unequal “dispersion of and access to productive resources” and “rewards of labour” (Bapuji, 2015). The former may lead to conditions of low-income mobility, and the latter may lead to conditions of high-income inequality. Therefore, these macroeconomic institutional conditions or consequences of institutional voids (as opposed to presence of institutional support) lead to opportunities for entrepreneurship (Lippmann, Davis, & Aldrich, 2005).

The term *institutional void* in the SE literature describes conditions of limited government support, typically for social programs. Under such conditions, societal needs created by conditions such as poverty or environmental pollution are more prevalent, leading to a greater demand for SE (Dacin et al., 2010; Estrin et al., 2013; Mair & Marti, 2009; Zahra et al., 2009). From this perspective, government inactivity motivates social organizations and others in the private sector to fill this void; and conversely, the presence of active and involved governments leads to fewer societal concerns and therefore fewer individuals likely to be motivated to engage in SE (Stephan et al., 2014). Empirical studies have shown that higher government activism is negatively correlated with SE start-up endeavors (Estrin et al., 2013; Mair, Battilana, & Cárdenas, 2012; Stephan et al., 2014).

Further, all entrepreneurial activities “can be conceptualized as a function of *opportunity* structures and *motivated* entrepreneurs” (Aldrich & Zimmer, 1986, p. 3). This process is an outcome of the fit between the individual and the opportunity (Shane & Venkataraman, 2000). Davidsson’s (2015) review, showing limited theoretical and empirical progress in understanding the role of opportunities and individuals, suggests that new venture creation occurs in the nexus between *external enablers* and *actors*. Such opportunities or external enablers (e.g., changes in technology, consumer preferences, macroeconomic conditions, or other attributes of context) are

assumed to exist independent of human perception (Shane, 2003). Opportunities for social entrepreneurship, though, likely differ from those for commercial entrepreneurship (Corner & Ho, 2010). In the case of social entrepreneurship, opportunities to create social values surface through philanthropic activities, activities such as fair-trade importing, and self-help systems enabling people to help themselves, similar to the microfinance movement (Hockerts, 2006). Such opportunities are embedded in a society or a community, a context that differs from that of commercial entrepreneurs (Robinson, 2006).

We argue that the external enablers such as the macroeconomic institutional conditions described above are motivational stimulants (Stephan et al., 2014) for individuals highly responsive to prosocial motivations (Grant & Berry, 2011; Grant & Sumanth, 2009) to engage in movements or enterprises that lead to the creation of social value. Conditions of economic inequality are an external circumstance (or external enabler) that has the potential to elicit entrepreneurial responses from individuals who want to create social value. The favorability of this external enabler fits the characteristics of these individuals (Davidsson, 2015), i.e., characteristics of individuals responsive to prosocial motivation. Prosocial motivation is defined as the desire to put in efforts based on the concern for helping or contributing to others (Grant, 2008; Grant & Berry, 2011; Grant & Sumanth, 2009), with “the goal of protecting and promoting the welfare of other people” (Grant, 2008, p. 49). The individual’s attention is directed toward improving the welfare of other people, in the interest of improving their lives (Staub, 1984). Unusually alert individuals (Kirzner, 1979; Shane, 2003) take advantage of external circumstances or discovery opportunities (Alvarez & Barney, 2010). In the case of the conditions of economic inequality, individuals responsive to prosocial motivations would take entrepreneurial actions to provide members of society with means of livelihood through various social movements and

enterprises, in order to reduce economic inequality. In our proposed model (Figure 1), income inequality and income mobility are macroeconomic conditions of formal institutions affecting demand for SE (Dacin et al., 2010; Estrin et al., 2013).

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### *Income Inequality and Social Entrepreneurship*

Income inequality is an institutional condition primarily attributable to the inability of the country's formal institutions to redistribute economic wealth through progressive tax structures (Aidis et al., 2012). Such deficiencies in the institutional context are opportunities entrepreneurs can exploit (Welter, 2011). Countries with bad or weak institutions are expected to have high-income inequality (Chong & Gradstein, 2007), which refers to the “*unevenness in rewards for labour*” (Bapuji, 2015, p.1062). The presence of income inequality in a society is a possible barrier to achieving higher standards of living (Carsrud & Brannback, 2011). Social policy shapes income distribution in the form of tax structures, income-transfer programs, and wage-setting institutions (McCall & Percheski, 2010). Presence of inequality prevents development of human capital by contributing to lower levels of trust, skills, social mobility, and physical health (Seery & Arender, 2014; Stiglitz, 2012; (van Zanden, Baten, & Ercole, 2014). The OECD (2011) states that rising income inequality “can stifle upward social mobility” (p. 40), making it difficult for individuals to move up the socioeconomic ladder. The relationship that has been referred to in literature as “The Great Gatsby Curve” supports this phenomenon. It shows that countries with more inequality also experience low-income mobility across generations (Corak, 2013). In the context of high levels of inequality, wealthier individuals have powerful incentives to preserve the inequalities through appropriate mechanisms, such as limiting access to education and distribution (Corak, 2013; van Zanden et al., 2014), increasing entry barriers for new enterprises (Acemoglu & Johnson, 2005),

or promoting high taxation and rent seeking (Seery & Arendar, 2014). In view of this, individuals at the lower end of the economic spectrum may find the prospect of upward income mobility infeasible (Corak, 2013).

Such societal concerns are opportunities that will act as motivational stimulants for individuals responsive to prosocial motivations (Stephan et al., 2014). The key response of compassion in such situations, as shown by various studies, will evoke helping behaviors from individuals (Barnett, Thompson, & Pfeifer, 1985). Such individuals would engage in entrepreneurial tasks of compassionate venturing (Shepherd, 2015) or actions intended to serve the well-being of a group (Miller et al., 2012). For example, treadle-pump and drip-irrigation technology products offered by International Development Enterprises, a not-for-profit organization in India, provides poor farmers with affordable methods for improving their economic position. Similarly, social entrepreneurs created microcredit firms (e.g., Grammen Bank, Bangladesh Rehabilitation Assistance Committee) to provide the poor with working capital to start entrepreneurial ventures (Miller et al., 2012).

In summary, failure of governments to provide sufficient mechanisms for adequate income distribution in society through formal institutions may lead to growth of prosocial initiatives (Warr, 1982). Extant studies support this government failure theory; i.e., less active governments correlate with the presence of a larger nonprofit sector (Matsunaga, Yamauchi, & Okuyama, 2010). Scholars have argued that social entrepreneurship is a compassionate response to unmet needs of a society (Dees, 1998). Such responses from social entrepreneurs could provide access to education and finances (e.g., microfinancing) to set up enterprises, and help give voice to the downtrodden in society, among other societal objectives. Hence, we posit:

**Hypothesis 1:** Income inequality is positively associated with the likelihood of individuals engaging in social entrepreneurship.

### *Income Mobility*

In contrast to the voluminous literature on income inequality, the literature on measurement and interpretation of income mobility is more limited and ad hoc (Fields & Ok, 1999; Woolard & Klasen, 2005). The number of comparative studies on income mobility is especially limited because of the lack of sufficiently comparable cross-country panel data, and the extant research's primary focus on comparison between the US and a few European countries. When the Economic Mobility Project (2009), supported by the Pew Charitable Trusts, conducted a national poll that asked Americans what they understood by the phrase "American Dream," a typical response was, "Being able to succeed regardless of the economic circumstances in which you were born" (Corak, 2013). Bénabou & Ok (2001) have called this perception the "prospect of upward mobility." The key objectives of having a mobile society are linked to the goals of ensuring equality of opportunity for individuals in society (and especially the labor market), and having an economy that is flexible and efficient (Friedman, 1962; Atkinson, Bourguignon, & Morrisson, 1992). The instrumental justification for mobility occurs in the context of achieving distributional equity: lifetime equity depends on the extent of movement up and down the earnings distribution ladder over the lifetime (Atkinson et al., 1992). Specifically, Friedman (1962) emphasized the role of income mobility in reducing income differentials between individuals, by allowing them to change their positions in the income distribution over time. Extant literature therefore suggests income mobility as a solution, to alleviate poverty (Sologon & O'Donoghue, 2009).

Income mobility is also one of the indicators of social sustainability defined by the World Economic Forum, and of social cohesion, a conceptual element of the social sustainability pillar. It is a condition under which subsequent generations can improve their economic status, regardless of that of their parents. Higher correlations between the incomes of fathers and sons indicate less

economic mobility in society (Wilkinson & Pickett, 2007). Economic mobility is also a consequence of the opportunities available in society for economic advancement. Easy access to education, for example, would help individuals develop the human capital required for economic advancement (Corrigan et al., 2014).

In extending the conceptual clarity of economic inequality, Bapuji (2015, p.1062) conceptualizes it as “uneven access to productive resources”, along with resource endowments and rewards for labor. Productive resources would entail education, health, nutrition, unemployment insurance, and other services such as skills development. These initiatives of government spending are a function that contributes to overall government activism (Beach & Kane, 2008). Government activism can provide such resources to citizens through adequate spending (Aidis et al., 2012). Higher degrees of government activism in this instance will reflect the institutional support perspective proposed by Stephan et al. (2014). Income mobility, for example, tends to be higher when education expenditures are higher and more fairly distributed, particularly at the elementary level (Mayer & Lopoo, 2008; McCall & Percheski, 2010). Such resources would contribute to the upward movement of individuals on the economic ladder.

In summary, higher levels of publicly shared goods, such as income insurance, equality in educational opportunity, and access to good health care, can foster greater equality of opportunity and greater upward income mobility (Smeeding, 2005). Therefore, high-income mobility indicates existence of possible opportunities for wealth creation, an objective characteristic of commercial entrepreneurs, as opposed to social entrepreneurs. In such contexts, opportunities for economic advancement, capitalized in part by commercial entrepreneurs, would lead to improved well-being and prosperity in society, as long as individuals worked hard (Alesina, Di Tella, & MacCulloch, 2004). Therefore, individuals would be more prone to take advantage of the commercial

opportunities that such contexts present. Social missions, on the other hand, shape opportunity recognition for social entrepreneurs, as they involve attempts to create social value (Dees, 1998; Dorado, 2006). Social-value creation for individuals responsive to prosocial motivations is about resolving social problems, such as generating income for the economically disadvantaged or delivering medicine to poverty-stricken areas (Corner & Ho, 2010; Dees, 1998, 2007). It is about generating solutions for such problems (Thompson, 2002). In societies where mobility is high—as opposed to societies where mobility is low—we would expect the social concerns to be fewer; hence the opportunities for individuals responsive to prosocial motivations would be limited. In such societies, using the institutional support perspective, we would therefore expect fewer social entrepreneurs. Hence, we posit:

**Hypothesis 2:** Income mobility is negatively associated with the likelihood of individuals engaging in social entrepreneurship.

#### *Income Inequality, Income Mobility, and Social Entrepreneurship*

Income mobility shapes the opportunity structures that exist in society because it is a result of high government activism to ensure that its citizens have adequate access to resources. Government activism (or the lack of it) may lead to changes in the opportunities, incentives, and institutions that develop and transmit human capital important in the labor market. It also shifts the balance of power to economically well-off individuals or groups, enabling them to structure policies or otherwise support their children's endeavors, independent of talent (Corak, 2013). In their study of well-being and happiness, Alesina et al. (2004) reported that individuals in the U.S. are happier than individuals are in Europe when inequality is high. In Europe, they found that the poor are unhappy about inequality. They argue that this difference is consistent with individuals' perception of living in a mobile society, where individual effort can move people up and down the income ladder. Individuals in Europe believe that they live in less mobile societies, supporting the

argument that these are the consequences of different perceptions of the degree of income mobility. According to the World Value Survey, 71% of Americans believe that the poor have a chance of escaping poverty in the U.S, compared to 40% in Europe (Alesina et al., 2004).

Therefore, income mobility is about the opportunities that exist in societies for economic advancement of individuals. A study by Ladd and Bowman (1998) showed that Americans are willing to tolerate wealth inequality as long as they perceive that wealth is a result of effort, and that everybody has the opportunity or access to opportunities for economic advancement. Such opportunities or access may be sparse or nonexistent in countries where economic mobility is low. This explains why the European poor feel that their chances of moving up the income ladder are fewer than those that are in the U.S. (Alesina et al., 2004).

In summary, extant research shows that the more opportunities there are for individuals in society to advance economically (a result of higher government activism), the more tolerance of income inequality there will be. The lack of such opportunities for income mobility, particularly in countries with high-income inequality, present opportunities for social entrepreneurs to create social value. Therefore, we argue that in societies with income disparities, the impact of income inequality on the likelihood of social entrepreneurship would be higher when income mobility is low. Hence, we posit:

**Hypothesis 3:** The impact of income inequality on the likelihood of individuals engaging in social entrepreneurship is negatively moderated by income mobility, such that individuals are more likely to engage in social entrepreneurship when income inequality is high and income mobility is low.

## **Method**

### *Data*

We tested our hypotheses related to the direct effects of income inequality and income mobility, as well as their interactions, on the individual-level likelihood of social entrepreneurship. We



analyzed survey data from 77,983 individual-level responses clustered across 26 countries<sup>1</sup> for the year 2009, obtained from the publicly available Global Entrepreneurship Monitor (GEM) survey (Reynolds et al., 2005). Data on the two country-level predictors—income inequality and income mobility—obtained from the World Development Indicators data set (World Bank, 2012) and the Global Competitiveness Report of the World Economic Forum, respectively, complemented the initial data set. The publicly available GEM 2009 adult-population survey provided the first comprehensive data for which social entrepreneurship was the unique theme. The operationalization of individual-level social entrepreneurship was based on earlier pilot studies<sup>2</sup> in such a manner that the survey questions were theoretically grounded in the social entrepreneurship literature (Lepoutre, et al., 2013).

*Dependent Variable: Social Entrepreneurship*

Our dependent variable is the individual-level likelihood of engaging in social entrepreneurship (likelihood measured with respect to the general population), obtained from the GEM data set. GEM identifies three types of entrepreneurs (1) *nascent entrepreneurs* - individuals who are active in the process of establishing a new firm during the preceding 12 months and with expectations of full or part ownership, but who have not yet launched; (2) *new entrepreneurs* - owner-managers of young firms who have survived for 3.5 years and have paid wages to any employees for more than three months; and (3) *established entrepreneurs* - owner-managers of established firms 3.5 years old or older. As such, these three types of entrepreneurial activities broadly represent entrepreneurial behaviors in pre- and post-entry (category 1, above, represents pre-entry, and categories 2 and 3 represent post-entry). Since our research question seeks to examine the antecedents of individual-level likelihood of engaging in social entrepreneurship, we sampled the nascent stage only—i.e., the pre-entry stage alone.

In our study, we ensured that the sample of social entrepreneurs did not overlap with that of commercial entrepreneurs by imposing conditions that identified individuals as only social entrepreneurs, and never as both. This classification method was used to ensure that an individual did not exhibit mixed traits and behaviors of both social and commercial entrepreneurs, and that the effects of country-level factors could be examined exclusively for social entrepreneurship.

The GEM Social Entrepreneurship survey methodology (Reynolds et al., 2005) screens social entrepreneurs as those individuals who respond yes to the 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 objective?” We sampled out the identified nascent entrepreneurs to estimate the likelihood of individuals engaging in social entrepreneurship. These entrepreneurs were identified as individuals engaging in social entrepreneurship if they answered affirmatively that the primary reason for starting pertained to “any kind of activity, organization or initiative that has a particularly social, environmental or community objective” (Mair & Marti’, 2006; Zahra et al., 2009). The dependent variable assumed a value of 1 if the individual responses were affirmative, and 0 otherwise, making our dependent variables dichotomous in nature. Table 1 shows the percentage rates of nascent social entrepreneurship in each of the 26 countries.

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*Country-Level Predictor Variables*

*Income inequality:* The *Gini index* is a measure commonly used in longitudinal studies to assess the extent to which income distribution among individuals or households within an economy deviates from an equal distribution. The quantification procedure requires the plot of a Lorenz curve capturing the cumulative percentages of total income received against the cumulative

number of recipients, starting with the poorest individual or household. Then, the Gini index is computed by measuring the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. In this context, a Gini index of 0 indicates perfect equality, whereas an index of 100 implies perfect inequality. There is a consensus that economies that are more equal have a Gini coefficient of 30 or below, while societies that are more unequal record coefficients of 50 or above (Stiglitz, 2012). Our sample, collected from the WDI dataset, indicates an average Gini coefficient of 36, recording averages whose maximum is 63.14 in South Africa and whose minimum is 24.80 in Denmark (Table 1).

*Income mobility:* Income mobility is a measure of responses to the question of the extent to which individuals have the opportunity to improve their economic situation through their personal efforts, regardless of the socioeconomic status of their parents. Income mobility, along with the Gini index and youth unemployment, are indicators of social cohesion, one of the three conceptual elements the World Economic Forum (WEF) considered to define the social sustainability pillar in their Global Competitiveness Report. The WEF's 2012-2013 Global Competitiveness Report introduced income mobility based on the premise that in the context of sustainable competitiveness, it is important that subsequent generations improve their condition regardless of the socioeconomic status of their parents (Schwab, 2012). The report suggests that from an economic perspective, the absence of such mobility constrains human development, and therefore income mobility is a direct measure of the freedom to pursue human development. The survey seeks a response to the question, "To what extent do individuals in your country have the opportunity to improve their economic situation through their personal efforts regardless of the socioeconomic status of their parents?" The responses range from 1 (little opportunity exists to improve one's economic situation) to 7 (significant opportunity exists to improve one's economic

situation). Our sample, collected from the WEF dataset, indicates an average score of 5, recording a maximum economic mobility measure of 6.36 in Finland, and a minimum measure of 3.47 in Hungary (Table 1).

#### *Country-Level Control Variables*

Rates of entrepreneurial activities across countries vary with their levels of economic development (Lepoutre et al., 2013). We control for this factor by using the GDP per capita (expressed as USD) (Aidis et al., 2012; Autio & Acs, 2010) obtained from the World Bank (WB) database for 2009. We follow Minniti (2008) in controlling for the effectiveness of government policies, and our data on government effectiveness was obtained from the World Governance Indicators (WGI) database for 2009. Government effectiveness “reflects the perceptions of the quality of public services, the quality of the civil services 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” and is likely to influence social entrepreneurship.

Since the four country-level variables were obtained from different sources—the raw scores thus representing different scales and making interpretation difficult—we z-standardized each of them. Therefore, the results are interpreted from the point of view of one standard deviation in the predictors.

#### *Individual-Level Controls*

All individual-level controls were obtained from GEM data. Since an individual’s age (Arenius & Minniti, 2005; Reynolds et al., 2005) and gender (male = 0, female =1) (Hecchavarria et al., 2012; Leahy & Villeneuve-Smith, 2009; Witte, 2013) influence entrepreneurship, we controlled for these aspects as well. Additionally, education level (Allen et al., 2008; Arenius & Minniti, 2005) has

been linked to entry into entrepreneurship; therefore, we controlled for level of education using five levels: 0 = none; 1 = some primary; 2 = primary; 3 = secondary; and 4 = graduate.

Individual attitudes, such as perceived entrepreneurial self-efficacy, entrepreneurial intentions, and fear of failure, are known to influence entrepreneurial behaviors. Self-efficacy indicates whether the individual felt that he or she possessed the knowledge, skills, and experience required to start a new business. Self-efficacy was operationalized as a dummy variable (1 = yes, 0 = no) (Wennberg, Pathak, & Autio 2013). Entrepreneurial intentions were captured as a dummy variable (1 = yes if individuals had entrepreneurial intentions; 0 = no if they did not), defined as individuals who are expecting to start a new business within the next 36 months, but who have not yet taken any action. Fear of failure was captured using a dummy variable (1 = yes if individuals were fearful of failure; 0 = no if they were not) that measured an individual's lack of confidence in his or her ability to cope with endogenous or exogenous uncertainty associated with new business ventures, as well as the fear of anticipated consequences of such failure (Wagner & Sternberg, 2004). All three attitudinal variables were also obtained from the GEM data set.

We have provided the operational definition, concept, and data source for each measure included in our study in Appendix 1. Table 2 reports the descriptive statistics of each of the variables used in the study.

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### *Estimation Methods*

Since we combined individual-level observations with country-level measures, we analyzed our data using hierarchical linear modeling methods. Further, since our dependent variable was dichotomous, we carried out our outcome regressions using random-effect logistic regression to

estimate the influence of country-level factors (level 2) on individuals' likelihood of engaging in social entrepreneurship.

Subsequently, we adopted a four-step testing strategy to estimate the likelihood of social entrepreneurship. First, we estimated between-country variance that existed in the dependent variable by including no predictors or controls in our random-effect logistic regression model. We observed significant country-level variance in our dependent variable, suggesting that country-level factors could be responsible for this variance in the dependent variable. This finding mandated multilevel analyses, since only country-level factors could account for country-level variance. This regression model was called the "null model" (Model 1 in Table 5). As our second step, we added individual-level as well as country-level controls prior to the addition of the three country-level predictors (Model 2). As our third step, we included the two country-level variables (economic inequality and economic mobility) in the model in step two, to investigate the main effects of the three country-level (Model 3). Finally, as our fourth step, we tested the interaction between economic inequality and economic mobility (Model 4).

## Results

Tables 3 and 4 show the correlation matrix for individual and country-level variables, respectively. Table 4 also reports the Variance Inflation Factor (VIF) scores on the country-level controls and predictors.<sup>3</sup> Table 5 reports the effects of the predictors on social entrepreneurship. As mentioned earlier, given that our dependent variable was dichotomous, we carried out our outcome regressions using random-effect logistic regressions<sup>4</sup> (using the *gllamm* command in the Stata 13.0 software tool).

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### *Intra-Class Correlation (ICC)*

Significant between-group variance in the dependent variables requires multilevel analysis (Bliese, 2000; Hofmann, 1997; Hofmann, Griffin, & Gavin, 2000; Hox, 2010). To check this variance, as our first step we estimated multilevel logistic regression without any predictors or controls in the model (Models 1 of Table 5) that yielded significantly high Intra-Class Correlation (ICC) values of 22.18% in social entrepreneurship across the 26 countries included in our study. This significantly large variance across the 26 countries necessitated multilevel analyses, wherein the variance could be explained using the two country-level predictors—economic inequality and economic mobility.

As our second step, we included in our model (Model 2 Table 5) all the individual, as well country-level, controls. Random-effect logistic regressions were conducted, and the estimates are reported as odds ratios (exponential of the beta coefficients obtained from logistic regressions), with ratios greater than 1 representing positive association (percent increase) and those less than 1 representing negative association (percent decrease). This allowed us to gauge the amount of remaining variance in the dependent variable, explained after the controls had been accounted for in the model. We observed that the variance component decreased from 0.94 in Model 1 (null model) to 0.64 in Model 2, suggesting that the addition of all individual and country-level controls in the equation explained 32% of the remaining variance in the individual-level likelihood of engaging in social entrepreneurship across the 26 countries included in our study.

### *Effects of Income Inequality and Income Mobility on Social Entrepreneurship*

As our third step, we added the two country-level predictors in the model (Model 3 of Table 5). Random-effect logistic regression was conducted and the estimates are reported as odds ratios. Our results show that a one-standard-deviation increase in income inequality increased individual-

level likelihood of engaging in social entrepreneurship by 33% (odds ratio = 1.33;  $p < 0.001$ ). Further, a one-standard-deviation increase in income mobility decreased individual-level likelihood of engaging in social entrepreneurship by 31% ( $1 - 0.69$ ;  $p < 0.001$ ). Random part estimates between Models 2 and 3 suggest that the addition of our two country-level predictors accounted for the remaining 9% (decrease of the variance component of intercept from 0.64 to 0.58) of the variance after accounting for individual-level and country-level controls. This observation renders both country-level income inequality and the extent of income mobility as significant and salient predictors of the individual-level likelihood of engaging in social entrepreneurship.

#### *Interaction Effect of Income Inequality and Income Mobility*

Finally, as our fourth step, we tested the interaction effect between our two country-level predictor variables (Model 4 of Table 5). Random-effect logistic regression was conducted and estimates reported as beta-coefficient (as opposed to odds ratio reported in Models 2 and 3 of Table 5). We examine how income mobility moderates the influence of economic inequality on individual-level likelihood of engaging in social entrepreneurship. The interaction term was observed to be statistically significant and in the proposed direction ( $\beta = -0.05$ ,  $p < 0.05$ ). Given that the effect size, as well as the causal directionality, of the interaction terms could be explained best with graphical support, we corroborated the discussion below with Figure 2. Please note that to facilitate the interpretation of our interaction plot, the graph was constructed based on the beta coefficients shown in Model 4 of Table 5. In addition, low and high-income mobility in Figure 2 represent (Mean - 1.5 S.D.) and (Mean + 1.5 S.D.) respectively. We observe that the likelihood of individuals creating social enterprises is highest when income mobility is lower and income inequality is high. However, as income mobility increases, the positive effect of income inequality



on the likelihood of social entrepreneurship decreases, suggesting that the impact of income inequality on the likelihood of social entrepreneurship is greatest when income mobility is lowest. We therefore can infer that as income mobility increases, income inequality becomes a weaker predictor of entry into social entrepreneurship, thereby supporting Hypothesis 3.

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We also note that the variance component of the random intercept decreased from 0.58 in Model 3 to 0.56 in Model 4. This suggests that the addition of the interaction term explained 3%  $\left(\frac{0.58 - 0.56}{0.58} * 100\right)$  of the remaining country-level variance that existed in the dependent variable across 26 countries, after all controls and the two predictors had been accounted for. This supports the contention that a significant proportion of the variance in the likelihood of individuals opening social enterprises could be explained exclusively by the moderation effect of the income inequality and income mobility across the 26 countries that were studied.

#### *Robustness Checks*

We conducted robustness tests to ensure that the significance levels of the main effects of the two country-level predictors—income inequality and income mobility—were not driven by the use of a large number of observations alone (77,983 individual responses). We checked this using the *sample* command in Stata. It allows randomly sampling and retaining a given percentage of the total number of observations, while still clustering them across the 26 countries included in our study. We retained samples ranging from as low as 1% (N = 779) to 100% of the full sample. There was no loss of generalizability in the results for the samples that were retained with more than 1% of the total number of observations.

Further, since rates of commercial entrepreneurship and the level of a country's economic development (GDP) has been observed to be endogenous (Ács & Audretsch, 2006; Naudé,

2010)—one affecting the other and vice versa—we conducted an additional robustness check to investigate whether rates of social entrepreneurship and GDP were endogenous to each other. To do so, we aggregated our dependent variable—individual-level social entrepreneurship—at the country-level. This yielded 26 such rates, corresponding to the national rates of social entrepreneurship across the 26 countries included in our study. Following this, we performed an ordinary least square (OLS) regression, with GDP as the dependent variable and rates of social entrepreneurship as the predictor (for  $N = 26$  observations). We observed that national rates of social entrepreneurship were not a statistically significant ( $p < 0.24$ ) predictor of national GDP for the 26 countries included in our study, thereby suggesting that they do not suffer from issues related to endogeneity.

Our data set has two countries—Spain and the UK—that have observations an order of magnitude higher than the remaining 24 countries. We therefore conducted an additional robustness check to see if the large number of observations contributed by these two countries were biasing the estimates. We dropped Spain and the UK from our sample set and replicated the main model (Model 3 of Table 5) to look into the main effects of income inequality and income mobility on social entrepreneurship. We did not observe any loss of generalizability of our results. Income inequality was observed to be positively associated (as proposed in the hypotheses) with the individual-level likelihood of social entrepreneurship (odds ratio = 1.17, value greater than 1 suggesting positive association, albeit weaker than in the main model;  $p < 0.001$ ). Income mobility was also observed to be negatively associated (as proposed in the hypotheses) with the individual-level likelihood of social entrepreneurship (odds ratio = 0.69, value less than 1 suggesting negative association;  $p < 0.01$ ).

## **Discussion**

Recent developments in the area of entrepreneurship have come from scholars examining how entrepreneurial actions benefit others (Dacin et al., 2011; Dees, 1998; Mair & Marti, 2006; McMullen, 2011). There is increasing attention to examining the role of entrepreneurship in alleviating economic inequality in general. For example, entrepreneurship has been considered a key ingredient of strategies for overcoming poverty (Powell, 2008). However, relatively little empirical attention has been devoted to the specific mechanisms that make entrepreneurship a tool for overcoming poverty (Tobias, Mair, & Barbosa-Leiker, 2013). Empirical studies in social entrepreneurship have started to unravel some of the underlying mechanisms (Peredo & Chrisman, 2006).

Many scholars argue that social entrepreneurship plays a central role in societal transformation (Hall, Daneke, & Lenox, 2010). However, we have a limited understanding of the factors and processes that drive individuals to engage in the form of entrepreneurship that may help produce social change (Tobias et al., 2013). There is increasing consensus among scholars that context plays a key role in shaping the social-value-creation aspect of social entrepreneurship (Alvord et al., 2004; Peredo & Chrisman, 2006; Short et al., 2009). Surprisingly, little is known about the actual mechanisms that may enable entrepreneurs to address persistent social concerns and change the social and economic realities that may have contributed to creating these societal concerns in the first place (Hoogendoorn, Pennings, & Thurik, 2010). We complement this line of enquiry by examining the mechanisms by which contextual conditions of economic inequality influence social entrepreneurship. Specifically, this line of enquiry has not studied the extent to which economic inequality influences social entrepreneurship (Bapuji et al., 2015).

In developing our framework, we link insights from institutional theory and entrepreneurial opportunities (Davidsson, 2015), proposing that institutional conditions of economic inequality,

which formal institutions of government activism create, predict social entrepreneurial activity (Stephan et al., 2014). We empirically test institutional conditions of income inequality (created by institutional voids) and income mobility (created by conditions of institutional support) for their effect on the likelihood of SE. Our findings support understanding the role of opportunities (as created by the above institutional conditions) and individuals, and suggest the nexus between external enablers and actors for new social-venture creation (Davidsson, 2015). The key desire to change society makes social entrepreneurs more sensitive to entrepreneurial opportunities of social concern (Mair & Noboa, 2006; Prabhu, 1999), such as income inequality and mobility in society. Specifically, we argue that these “gaps between socially desired conditions and the existing reality” (Alvord et al., 2002, p. 5), as various studies have shown, will evoke compassionate responses (through social enterprises) by individuals’ sensitive to prosocial motivation. In summary, our findings add to the call for scholarship to understand the “nature of entrepreneurial actions that exploit a potential action to do good” (Shepherd, 2015, p. 501).

Our theoretical contribution lies in establishing economic inequality as a contextual antecedent of social entrepreneurship. Doing so extends the conceptual understanding of economic inequality by empirically testing income inequality and income mobility, both of which can be considered ingredients of economic inequality (Bapuji, 2015). We also suggest institutional boundary conditions of this relationship by establishing the effect of interaction between income inequality and income mobility on social entrepreneurship. The influence has been found to be stronger in such contexts where the income mobility is low and income inequality is high. Our results concur with the evidence that social enterprises contribute to the Millennium Development Goals (MDGs), such as global development, poverty eradication, hunger eradication, education for all, and health, set by the United Nations for sustainable development. These goals stem from

the UN Millennium Declaration, which addressed the key concerns of inequality among nations in an increasingly globalized world (Seelos, Ganly, & Mair, 2005). Of the 50 social enterprises contributing to the achievement of the MDGs, 16% are operating in the least developed countries (LDCs) and another 14 are operating in countries that are in the bottom 30% of the human development index (HDI). Some of the successful examples include BRAC in Bangladesh, which aims to mobilize the latent potential capacity of the poor to lift themselves up through self-organization, with projects in areas such as health, education, microfinance, and environment (Seelos & Mair, 2005a). Similarly, enterprises in Africa, such as ApproTEC and Riders for Health, focus on specific social problems and methods to overcome them (Seelos et al., 2005).

Another implication of economic inequality is that it leads to an erosion of social capital (Kawachi & Kennedy, 1997; Wilkinson, 1996). Social capital has been defined as features of society such as the extent of interpersonal trust between citizens, norms of reciprocity, and norms of cooperation for mutual benefit (Coleman 1990; Putnam 1993). These are termed intangible assets that help build credibility and develop cooperative norms in society (Seelos & Mair, 2005b). Extant research has shown that commercial entrepreneurs can take advantage at the societal level of social capital developed by social entrepreneurship (Estrin et al., 2013).

#### *Supplementary Analysis*

In order to further our discussions around this important topic, we conducted several supplementary analyses. First, in order to examine whether the main effects of income inequality and income mobility were linked to the level of economic development, we split our sample of 26 countries into two categories—seven *developing nations* (characterized by all countries for which the GDP per capita (USD) was less than \$10,000) and nineteen *developed nations* (GDP greater than or equal to \$10,000).

We observed that, consistent with our proposed hypothesis, income mobility was negatively associated with individual-level likelihood of engaging in social entrepreneurship in both developing and developed nations. However, this negative association was felt more strongly in developing nations than in developed countries. In developed countries, income mobility may be seen as an opportunity geared toward commercial entrepreneurship. Income mobility's negative effect (odds ratio = 0.08; i.e., probability reduced by 92%) in developing economies suggests that a slight improvement in mobility may be geared toward meeting subsistence requirements by social entrepreneurs, whereas in the case of developed economies, it may be seen as an opportunity geared toward commercial entrepreneurship (odds ratio = 0.70, i.e., probability reduced by only 30%). In summary, only a small surplus of the benefits from income mobility in developed countries could be geared toward social entrepreneurship, whereas there may be no surplus in developing countries, so all of it may be geared toward mere subsistence requirements. Income mobility observations in developing economies could also have been influenced by class differences and status differences (Björklund & Jäntti, 1999), compared to purely economic differences in developed economies. Such differences stemming from class and status would open more opportunities for social entrepreneurs to help build movements that give voice to such marginalized (by class and status) groups in developing economies (Alvord et al., 2002).

Further, consistent with our proposed hypothesis, the effect of income inequality was observed to be positively associated with individual-level likelihood of engaging in social entrepreneurship in both developing and developed nations. However, this positive association was felt more strongly in developed nations than in developing countries.<sup>5</sup> The difference could be due to unequal distribution of wealth. In developed countries, after meeting subsistence requirements, the wealthy could channel the surplus through social enterprises to initiatives aimed

at improving the collective good, unlike developing economies lacking such surpluses. Social entrepreneurs in developed economies would be more engaged in handling the negative consequences of income inequality. Those in developing economies would be engaged in helping build human capital and resources for advancement of individuals in the lower economic strata of society, the latter being influenced more by income mobility.

Second, we conducted another analysis on the full sample of 26 countries, to examine whether our country-level predictors exercised U-shaped effects on individual-level likelihood of engaging in social entrepreneurship. This allowed us to ascertain if increasing income inequality and income mobility exercised monotonically negative and positive effects respectively, as proposed in our hypotheses, on individual-level likelihood of individuals engaging in social entrepreneurship. We investigated this by inserting the square terms of income mobility and income inequality, one at a time, in our main models (Model 3 of Table 5).<sup>6</sup> We observed that the square term of income mobility exercised a positive effect on individual-level likelihood of engaging in social entrepreneurship, as opposed to the negative main effect of the income mobility term (the non-squared term). This suggests that the effects of income mobility change sign, exhibiting that, beyond a certain point, increased income mobility may be fruitful for social entrepreneurship. This would mean that while at the initial stages increased income mobility may induce individuals to initiate commercial enterprises (and therefore a reduced likelihood of social enterprises), after a certain point, the surplus generated would provide opportunities to channel some of it toward the collective good through social initiatives. The effect of the square term for income inequality was observed to be positive—in the same direction as the main effects of the single order term for income inequality (main effects). This suggests that the effect of income inequality on individual-level likelihood of engaging in social entrepreneurship is a monotonically

increasing function. This may explain that while social entrepreneurs initially may address the causes (access to resources and opportunity) that lead to income inequality, they may gradually progress to addressing some of the negative consequences of inequality (such as diminished health and crime).

Finally, we conducted additional analysis<sup>7</sup> on the full sample of 26 countries to compare the effects of income inequality and income mobility on commercial entrepreneurship, relative to their effects on social entrepreneurship. As when we considered social entrepreneurship, the dependent variable was created from the GEM data set by considering individuals who are exclusively nascent commercial entrepreneurs, to ensure meaningful comparison with nascent social entrepreneurs. Nascent, new, or established entrepreneurs were identified as *commercial entrepreneurs* if they responded affirmatively to: (1) “You are, alone or with others, currently trying to start a new business, including any self-employment or selling any goods or services to others,”(2) “Over the past 12 months, have you done anything to help start a new business, such as looking for equipment or a location, organizing a start-up team, working on a business plan, beginning to save money, or any other activity that would help launch a business?” (3) “Will you personally own all, part, or none of this business?” (4) “Has the new business paid any salaries, wages, or payments in kind, including your own, for more than three months?” We sampled the nascent stage alone, and the dependent variable (nascent commercial entrepreneurs) assumed a value of 1 if the individual responses were affirmative, and 0 otherwise, making the variable dichotomous, as in the operationalization of social entrepreneurship.

Replicating the main effects of income inequality and income mobility on the likelihood of commercial entrepreneurship using random-effect logistic regressions, we observed results opposite to what we had observed in the case of the likelihood of social entrepreneurship. Our



results show that a one-standard-deviation increase in income inequality increased individual-level likelihood of engaging in nascent commercial entrepreneurship by 11% (odds ratio of 1.11,  $p < 0.001$ ), which is significantly lower than the 33% increase (odds ratio 1.33,  $p < 0.001$ ) in the case of social entrepreneurship. Additionally, a one-standard-deviation increase in income mobility increased individual-level likelihood of engaging in commercial entrepreneurship by 19% (odds ratio of 1.19,  $p < 0.001$ ), compared to a 31% decrease (odds ratio 0.69,  $p < 0.001$ ) in the case of social entrepreneurship. We conducted two separate coefficient difference Wald tests to examine whether the two coefficients for the effects on social and commercial entrepreneurship were statistically different. The coefficients for both income mobility (Wald-test ( $\chi^2$ ) = 7.45;  $df$  (1);  $p < 0.001$ ) and income inequality (Wald-test ( $\chi^2$ ) = 5.26;  $df$  (1);  $p < 0.001$ ) were observed to be statistically different. The opposite influence of income mobility observed on the two forms of entrepreneurship, and a greater positive influence of income inequality on social entrepreneurship relative to commercial entrepreneurship, are consistent with the observation that individuals may differ in their perceptions of well-being. We infer that individuals with higher perceptions of well-being would tend to undertake commercial enterprises when they perceive the existence of high income mobility, or what was discussed earlier as the prospect of upward mobility (POUM) (B'énabou & Ok, 2001) manifest in the American Dream (Corak, 2013). This observation suggests implications for policy, namely, that governments should devise policies that facilitate income mobility, because income mobility is a context conducive to the likelihood of individuals engaging in commercial entrepreneurship, a driver of economic growth. Low-income mobility, we infer, would be a consequence of a lack of access to opportunities and resources for economic advancement. Such a context could provide avenues for social entrepreneurs to create social value, such as microfinancing and education for individuals in the lower economic strata of society.<sup>8</sup>

We also examine how income mobility moderates the influence of income inequality on individual-level likelihood of engaging in commercial entrepreneurship. The interaction term was found to be statistically significant ( $\beta= 0.07$ ,  $p < 0.003$ ). We corroborate the discussion below with Figure 3. As discussed earlier, low and high-income mobility in Figure 3 would represent (Mean – 1.5 S.D.) and (Mean + 1.5 S.D.) respectively. We observe that the likelihood of individuals creating commercial enterprises is highest when income mobility is high and income inequality is low, while the likelihood of individuals creating social enterprises is highest when income inequality is high and income mobility is low. The availability and accessibility of opportunities for entrepreneurship explain the differences. Conditions of low-income inequality and high-income mobility in society provide all members of society with easy and equal access to resources for pursuing entrepreneurial ambitions, and therefore promote commercial entrepreneurship. Conditions of high-income inequality and low-income mobility could be constraints on accessing resources and human capital development for pursuing commercial ambitions. In such situations, as shown by the increased role of social entrepreneurs in our results, social entrepreneurship could play a vital role in creating the necessary opportunities for advancement for individuals in the lower income segments of society, among other objectives related to tackling negative consequences of economic inequality.

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#### *Policy implications*

Our study also has policy implications. The findings can inform government initiatives to support social enterprises, such as not-for-profit organizations, in their endeavors to alleviate some of the malaise stemming from income inequality in society. More importantly, in societies where income mobility is low, government can help ensure that necessary opportunities reach individuals from

the lower income strata, through social enterprises to build human capital that can help them advance economically. Appropriate forums (similar to television shows Dragons' Den or Shark Tank) extolling the achievements of social entrepreneurs can enhance the social legitimacy of this profession.

The benefits of increased social entrepreneurship are twofold. First, such social entrepreneurs help build sufficient social capital at the societal level (Estrin et al., 2013). Second, individuals from the lower economic strata of society can use this social capital to build commercial enterprises (Estrin et al., 2013). For firms involved in commercial activity, contexts where economic inequality is high and economic mobility is low provide opportunities to redirect corporate social-responsibility initiatives toward lifting up individuals from the lower economic strata in socially innovative ways. Policy directed towards providing incentives to firms engaging in such socially responsible activities may prove useful.

#### *Limitations and future research*

Our empirical analysis is limited to data from 26 countries for the year 2009. Data from more countries would allow more generalized findings. Further, a larger number of developed and developing countries would allow more generalization in our supplementary analysis of the comparison between developed and developing countries. Similarly, socioeconomic mobility can be viewed from both an economic perspective that measures mobility in labor earnings and income, and a sociological perspective that measures mobility in class and status (Björklund & Jäntti, 1999). Our study considers only income mobility. Future research may consider complementing the results from the present study with the effects of mobility in class and status, to further understand the likelihood of social entrepreneurship. We also considered perceived values of income mobility as a proxy for income mobility. These values may not necessarily be

the case in reality (Alesina et al., 2004), leaving to future research the confirmation of our findings with actual mobility values.

As in extant research on social stratification, we infer that what is important in assessing social stratification is not so much the existence of income differences as such, but rather their persistence over the lifetime of individuals (DiPrete, 2002; Sørensen, 2000). In fact, whenever income mobility is high, cross-sectional income inequality may actually not be a good indicator of persistent income inequality, because income mobility over time will tend to equalize individuals' permanent incomes in the long run (Buchinsky & Hunt, 1999; Flinn, 2002; Gittleman & Joyce, 1999). This limitation in our study ensues from GEM not tracking individuals over time. Future research may therefore examine the longitudinal effects of the relationship between mobility and income inequality on the likelihood of social entrepreneurship. In other words, longitudinal studies could examine the question of whether reducing inequality as a consequence of improved mobility would reduce opportunities for social entrepreneurs in the long run.

The importance of income mobility may also vary across other institutional and cultural contexts (Gangl, 2005). The role of the interaction with informal institutions has not been considered. Hence, future research may need to consider other factors in our framework and establish their interplay with income inequality and mobility (Autio, Pathak, & Wennberg, 2013; Pathak & Muralidharan, 2016). Political structure (e.g., decentralized democratic versus centralized structure) or the role of the state may also moderate the influence of economic inequality (Lee & Bankston, 1999). Future research may examine the effect of political structures on conditions of economic inequality that influence the likelihood of social entrepreneurship. Our supplementary results also suggest a detailed comparison with the likelihood of commercial entrepreneurship. A comparative longitudinal study in this regard may help to tease out the

underlying mechanisms and boundary conditions that drive the relationship between economic inequality and both forms of entrepreneurial activity.

## **Conclusion**

We have examined the mechanisms and conditions under which economic inequality increases likelihood that individuals will engage in social entrepreneurship. By integrating insights from institutional theory, entrepreneurial opportunities, and social entrepreneurship, we suggest that income inequality increases the likelihood of social entrepreneurship under conditions of low-income mobility. Our study extends the conceptual understanding of economic inequality and contributes to filling the gap in the emerging scholarly literature on effects of context on social entrepreneurship.

## **Notes**

1. Argentina, Brazil, China, Colombia, Denmark, Ecuador, Finland, France, Germany, Greece, Guatemala, Hungary, Iran, Israel, Italy, Japan, Korea, Malaysia, Netherlands, Russia, Slovenia, South Africa, Spain, Switzerland, United Kingdom, United States.
2. GEM UK team (for example, Harding & Cowling, 2004; Harding, 2006; Levie et al., 2006).
3. We observed no multi-collinearity as the VIF scores were considerably  $<10$  (Hair, Anderson, Tatham, & Black, 1998).
4. Only the intercept varied randomly across countries, and not the slope.
5. A Wald-test was conducted to compare the strength of the effect of income mobility as well as income inequality (although as separate analysis) on social entrepreneurship in both sets of countries. The test revealed that the effects were statistically different in both cases.
6. Square terms were generated by squaring the z-scores of each of the two predictors. Use of z-score in the square terms eliminates any issues of multi-collinearity.
7. All of these three supplementary analyses are available from the authors upon request, but are suppressed here and not reported in a table for brevity.
8. Detailed results for main effects as well as the moderation effects on commercial entrepreneurship are available from the authors upon request

## References

- Acemoglu, D., & Johnson, S. (2005). Unbundling Institutions. *Journal of Political Economy*, 113(5), 949-95.
- Ács, Z. J., & Audretsch, D. B. (2006). *Handbook of entrepreneurship research: An interdisciplinary survey and introduction* (Vol. 1). Springer Science & Business Media.
- Aidis, R., Estrin, S., & Mickiewicz, T.M. (2012). Size matters: Entrepreneurial Entry and Government. *Small Business Economics*, 39(1), 119-139.
- Aldrich, H., & Zimmer, C. (1986). Entrepreneurship through social networks. In D. Sexton, & R. Smilor (Eds.), *The art and science of entrepreneurship* (pp. 3–23). Cambridge, MA: Ballinger.
- Alesina, A., Di Tella, R., & MacCulloch, R. (2004). Inequality and happiness: are Europeans and Americans different? *Journal of Public Economics*, 88(9), 2009-2042.
- Allen, I. E., Elam, A., Langowitz, N., & Dean, M. (2008). 2007 Global Entrepreneurship Monitor Report on Women and Entrepreneurship. Babson College: The Centre for Women's Leadership.
- Alvarez, S. A., & Barney, J. B. (2010). Entrepreneurship and epistemology: The philosophical underpinnings of the study of entrepreneurial opportunities. *The Academy of Management Annals*, 4(1), 557-583.
- Alvord, S. H., Brown, L. D. & Letts, C. W. 2002. Social entrepreneurship and social transformation: An exploratory study. Working Paper 15, November 2002. The Hauser Center for Nonprofit Organizations and The Kennedy School of Government, Harvard University.
- Alvord, S.H., Brown, L.D., & Letts, C.W. (2004). Social Entrepreneurship and Societal Transformation. *The Journal of Applied Behavioural Science*, 40 (3), 260-282.
- Arenius, P., & Minniti, M. (2005). Perceptual Variables and Nascent Entrepreneurship. *Small Business Economics*, 24(3), 233-247.
- Atkinson, A. B., Bourguignon, F., & Morrisson, C. (1992). *Empirical studies of earnings mobility*, Suisse: Harwood Academic Publishers.
- Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and Commercial Entrepreneurship: Same, Different or Both? *Entrepreneurship Theory and Practice*, 30(1), 1-22.
- Autio, E., & Acs, Z. (2010). Intellectual Property Protection and the Formation of Entrepreneurial Growth Aspiration. *Strategic Entrepreneurship Journal*, 4(3), 234-251.

- Autio, E., Pathak, S., & Wennberg, K. (2013). Consequences of cultural practices for entrepreneurial behaviors. *Journal of International Business Studies*, 44(4), 334-362.
- Bacq, S., & Janssen, F. (2011). The multiple faces of social entrepreneurship: A review of definitional issues based on geographical and thematic criteria. *Entrepreneurship & Regional Development*, 23(5-6), 373-403.
- Bapuji, H. (2015). Individuals, interactions and institutions: How economic inequality affects organizations. *Human Relations*, 68(7), 1059-1083.
- Bapuji, H., Husted, B., de Monterrey, T., & Mir, R. (2015) Special Issue of Business & Society Call for Papers Economic Inequality, Business and Society.
- Bapuji, H., & Neville, L. (2015). Income inequality ignored? An agenda for business and strategic organization. *Strategic Organization*, 1476127015589902.
- Barnett, M. A., Thompson, M. A., & Pfeifer, J. R. (1985). Perceived competence to help and the arousal of empathy. *The Journal of Social Psychology*, 125, 679-80.
- Beach, W., & Kane, T. (2008). Methodology: Measuring the 10 economic freedoms. Washington DC: The Heritage Foundation.
- B' enabou, R., & Ok, E.A., (2001). Social Mobility and the Demand for Redistribution. The POUM Hypothesis. *Quarterly Journal of Economics*, 116, 447-487.
- Björklund, A., & Jäntti, M. (1999). *Intergenerational mobility of socio-economic status in comparative perspective*. Social Policy Research Centre, University of New South Wales.
- Bliese, P. D. (2000). Within-group Agreement, Non-independence, and Reliability: Implications for Data Aggregation and Analysis, in *Multilevel Theory, Research, and Methods in Organizations: Foundations, Extensions, and New Directions* (349-381). In K. J. Klein & S. W. J. Kozlowski Eds.). San Francisco, CA: Jossey-Bass.
- Brammer, S., Jackson, G., & Matten, D. (2012). Corporate social responsibility and institutional theory: New perspectives on private governance. *Socio-Economic Review*, 10(1), 3-28.
- Bruton, G. D., Ahlstrom, D., & Li, H. L. (2010). Institutional theory and entrepreneurship: where are we now and where do we need to move in the future? *Entrepreneurship theory and practice*, 34(3), 421-440.
- Buchinsky, M., & Hunt, J. (1999). Wage mobility in the United States. *Review of Economics and Statistics*, 81(3), 351-368.
- Carsrud, A., & Brännback, M. (2011). Entrepreneurial motivations: what do we still need to know? *Journal of Small Business Management*, 49(1), 9-26.

- Castles, F. G., & Dowrick, S. (1990). The impact of government spending levels on medium-term economic growth in the OECD, 1960-85. *Journal of Theoretical Politics*, 2(2), 173-204.
- Chong, A., & Gradstein, M. (2007). Inequality and institutions. *The Review of Economics and Statistics*, 89(3), 454-465.
- Coleman, J. S. (1990). *The Foundations of Social Theory*. Cambridge, MA: Harvard University Press.
- Corak, M. (2013). Income inequality, equality of opportunity, and intergenerational mobility. *The Journal of Economic Perspectives*, 27(3), 79-102.
- Corner, P. D., & Ho, M. (2010). How opportunities develop in social entrepreneurship. *Entrepreneurship theory and practice*, 34(4), 635-659.
- Corrigan, G., Crotti, R., Hanouz, M.D., & Serin, C. (2014). Assessing Progress toward Sustainable Competitiveness. *The Global Competitiveness Report 2014-2015*, 53-83.
- Crane, A., Henriques, I., Husted, B. W., & Matten, D. (2016). What Constitutes a Theoretical Contribution in the Business and Society Field? *Business & Society*, 55(6), 783-791.
- Dacin, P. A., Dacin, M. T., & 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*, 24(3), 37-57.
- Dacin, M. T., Dacin, P. A., & Tracey, P. (2011). Social Entrepreneurship: A Critique and Future Directions. *Organization Science*, 22 (5), 1203-1213.
- Davidsson, P. (2015). Entrepreneurial opportunities and the entrepreneurship nexus: A re-conceptualization. *Journal of Business Venturing*, 30(5), 674-695.
- Dees, J. G. (1998). *The meaning of social entrepreneurship*. <http://www.redalmar2a.com/ing/pdf/TheMeaningofSocial> Entrepreneurship.pdf, accessed February, 21, 2016.
- Dees, J. G. (2007). Taking social entrepreneurship seriously. *Society*, 44(3), 24-31.
- DiPrete, T. A. (2002). Life course risks, mobility regimes, and mobility consequences: A comparison of Sweden, Germany, and the United States. *American Journal of Sociology*, 108(2), 267-309.
- Dorado, S. (2006). Social entrepreneurial ventures: different values so different process of creation, no? *Journal of developmental entrepreneurship*, 11(04), 319-343.



- Economic Mobility Project (2009). Opinion Poll on Economic Mobility and the American Dream. Washington DC: Pew Charitable Trusts. <http://www.pewstates.org/research/analysis/opinion-poll-on-economic-mobility-and-the-american-dream-8589>.
- Estrin, S., T. Mickiewicz, & U. Stephan (2013). Entrepreneurship, Social Capital, and Institutions: Social and Commercial Entrepreneurship Across Nations. *Entrepreneurship Theory and Practice*, 37(3), 479-504.
- Fields, G.D., & Ok, E.A. (1999). The Measurement of Income Mobility: An Introduction to the Literature. In J. Silber (Ed.), *Handbook of Income Inequality Measurement* (557-99). Boston: Kluwer.
- Flinn, C. J. (2002). Labour market structure and inequality: comparison of Italy and the United States. *Review of Economic Studies*, 69(3), 611-645.
- Friedman, M. (1962). *Capitalism and Freedom*. Chicago: University of Chicago Press.
- Gangl, M. (2005). Income inequality, permanent incomes, and income dynamics comparing Europe to the United States. *Work and Occupations*, 32(2), 140-162.
- Gittleman, M., & Joyce, M. (1999). Have family income mobility patterns changed? *Demography*, 36(3), 299-314.
- Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of applied psychology*, 93(1), 48.
- Grant, A. M., & Berry, J. W. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal*, 54(1), 73-96.
- Grant, A. M., & Sumanth, J. J. (2009). Mission possible? The performance of prosocially motivated employees depends on manager trustworthiness. *Journal of Applied Psychology*, 94(4), 927.
- Hair, J. F., Anderson, R.E., Tatham, R.L., & Black, W.C. (1998). *Multivariate data analysis*, 5th edn. Upper Saddle River, NJ: Prentice Hall.
- Hall, J.K., Daneke, G.A., & Lenox, M.J. (2010). Sustainable development and entrepreneurship: Past contributions and future directions. *Journal of Business Venturing*, 25 (5), 439-448.
- Harding, R. (2006). GEM UK 2006.
- Harding, R., & Cowling, M. (2004). The GEM UK social entrepreneurship monitor. *London, UK: Barclays Bank*.

- Hechavarria, D. M., Ingram, A., Justo, R., & Terjesen, S. (2012). Are women more likely to pursue social and environmental entrepreneurship? *Global women's entrepreneurship research: Diverse settings, questions and approaches*, 135-151.
- Hockerts, K. (2006). Entrepreneurial opportunity in social purpose ventures. In J. Mair, J. Robinson, & K. Hockerts (Eds.). *Social entrepreneurship* (142-154). London: Palgrave.
- Hofmann, D. A. (1997). An Overview of the Logic and Rationale of Hierarchical Linear Models. *Journal of Management*, 23(6), 723–744.
- Hofmann, D.A., Griffin, M.A., & Gavin, M.B. (2000). The Application of Hierarchical Linear Modeling to Organizational Research, in *Multilevel Theory, Research, and Methods in Organizations: Foundations, Extensions, and New Directions*. Eds. K. J. Klein and S. W. J. Kozlowski. San Francisco, CA: Jossey-Bass, 467–511.
- Hoogendoorn, B., Pennings, H., & Thurik, A. (2010). What do we know about social entrepreneurship: An analysis of empirical research. *International Review of Entrepreneurship*, 8 (2), 71–112.
- Hox, J. (2010). *Multilevel Analysis*, 2 ed. London: Routledge.
- Kawachi, I. & Kennedy, B.P. (1997). Health and Social Cohesion: Why Care About Income Inequality? *British Medical Journal*, 314(7086), 1037-40.
- Kirzner, I. M. (1979). *Perception, opportunity and profit*. Chicago: University of Chicago.
- Kuznets, S. (1963). Quantitative aspects of the economic growth of nations: VIII. Distribution of income by size. *Economic development and cultural change*, 11(2), 1-80.
- Ladd, E.C. & Bowman, K. (1998). *Attitudes Toward Economic Inequality*. AEI Press, Washington, DC.
- Leahy, G., & Villeneuve-Smith, F. (2009). State of Social Enterprise Survey 2009. *Social Enterprise Coalition*, London.
- Lee, M. R., & Bankston, W. B. (1999). Political structure, economic inequality, and homicide: A cross-national analysis. *Deviant Behavior*, 20(1), 27-55.
- Lepoutre, J., Justo, R., Terjesen, S., & Bosma, N. (2013). Designing a Global Standardized Methodology for measuring Social Entrepreneurship Activity: the Global Entrepreneurship Monitor Social Entrepreneurship Study. *Small Business Economics*, 40(3), 693-714.
- Levie, J., Brooksbank, D., Jones-Evans, D., Harding, R., & Hart, M. (2006). Measuring social entrepreneurship: Lessons from three years of experimentation by the UK Global Entrepreneurship Monitor team. *Frontiers of Entrepreneurship Research* 26, Article 3.

- Lippmann, S., Davis, A., & Aldrich, H. E. (2005). Entrepreneurship and inequality. *Research in the Sociology of Work, 15*, 3-31.
- Mair, J., Battilana, J., & Cardenas, J. (2012). Organizing for society: A typology of social entrepreneuring models. *Journal of Business Ethics, 111*(3), 353-373.
- Mair, J., & Marti, I. (2004). *Social entrepreneurship: What are we talking about? A framework for future research* (No. D/546). IESE Business School.
- Mair, J., & Martí, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business, 41* (1), 36-44.
- Mair, J., & Noboa, E. (2006). Social entrepreneurship: How intentions to create a social venture are formed. In *Social entrepreneurship* (pp. 121-135). UK: Palgrave Macmillan.
- Mankiw, N. G. (2013). Defending the one percent. *The Journal of Economic Perspectives, 27*(3), 21-34.
- Matsunaga, Y., Yamauchi, N., & Okuyama, N. (2010). What determines the size of the nonprofit sector? A cross-country analysis of the government failure theory. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 21*(2), 180-201.
- Mayer, S. E., & Lopoo, L. M. (2008). Government spending and intergenerational mobility. *Journal of Public Economics, 92*(1), 139-158.
- McCall, L., & Percheski, C. (2010). Income inequality: New trends and research directions. *Annual review of sociology, 36*, 329-347.
- McMullen, J.S. (2011). Delineating the Domain of Development Entrepreneurship: A Market-based Approach to Facilitating Inclusive Economic Growth. *Entrepreneurship Theory and Practice, 35*(1), 185–215.
- Miller, T. L., Grimes, M. G., McMullen, J. S., & Vogus, T. J. (2012). Venturing for others with heart and head: How compassion encourages social entrepreneurship. *Academy of management review, 37*(4), 616-640.
- Minniti, M. (2008). The Role of Government Policy on Entrepreneurial Activity: Productive, Unproductive, or Destructive? *Entrepreneurship Theory and Practice, 32*(5), 779-790.
- Naudé, W. (2010). Entrepreneurship, developing countries, and development economics: new approaches and insights. *Small business economics, 34*(1), 1-12.
- Neckerman, K.M., & Torche, F. (2007). Inequality: Causes and Consequences. *Annual Review of Sociology, 33*, 335-357.

- Nicholls, A. (2008). *Social Entrepreneurship: New Models of Sustainable Social Change*. Oxford: Oxford University Press.
- North, D. C. (2005). *Understanding the process of economic change*. Princeton, NJ: Princeton University Press.
- OECD. (2011). *Divided We Stand: Why Inequality Keeps Rising*. Organization for Economic Cooperation and Development.
- Pathak, S., & Muralidharan, E. (2016). Informal Institutions and Their Comparative Influences on Social and Commercial Entrepreneurship: The Role of In-Group Collectivism and Interpersonal Trust. *Journal of Small Business Management*, 54(S1), 168-188.
- Peredo, A.M., & Chrisman, J.J. (2006). Toward a theory of community-based enterprise. *Academy of Management Review*, 31(2), 309–328.
- Powell, B. (2008). *Making Poor Nations Rich: Entrepreneurship and the Process of Economic Development*. Stanford, CA: Stanford University Press.
- Powell, W. W., & DiMaggio, P.J. (1991). *The new institutionalism in organizational analysis*. Chicago: University of Chicago Press.
- Prabhu, G. N. (1999). Social entrepreneurial leadership, *Career Development International*, 4(3), 140–5.
- Putnam, R. D. (1993). *Making Democracy Work*. Princeton, NJ: Princeton University Press.
- Reynolds, P., Bosma, N., Autio, E., Hunt, S., De Bono, N., Servais, I., Lopez-Garcia, P., & Chin, N. (2005). Global entrepreneurship monitor: Data collection design and implementation 1998–2003. *Small business economics*, 24(3), 205-231.
- Robinson, J. (2006). Navigating social and institutional barriers to markets: How social entrepreneurs identify and evaluate opportunities. In J. Mair, J. Robinson, & K. Hockert (Eds.), *Social entrepreneurship* (95-120). New York: Palgrave Macmillan.
- Sagawa, S., & Segal, E. (2000). Common interest, common good: Creating value through business and social sector partnerships. *California Management Review*, 42(2), 105-122.
- Schwab, K. (2012). The Global Competitiveness Index Report 2012-2013. In *World Economic Forum*.
- Scott, W.R. (1995). *Institutions and organizations*. Thousand Oaks, CA: Sage.
- Scott, W.R. (2005). Institutional Theory: Contributing to a theoretical research program. In K.G. Smith & M.A. Hitt (Eds.), *Great minds in management: The process of theory development*. Oxford: Oxford University Press.

- Seelos, C., Ganly, K., & Mair, J. (2005). Social entrepreneurs directly contribute to global development goals. *Occasional Paper. IESE Business School.*
- Seelos, C., & Mair, J. (2005a). *BRAC – Enabling social capability and economic development.* Working Paper. IESE Business School, University of Navarra.
- Seelos, C., & Mair, J. (2005b). Sustainable development, sustainable profit. *European Business Forum*, (20), 49–53.
- Seery, E., & Caistor Arendar, A. (2014). Even it up: Time to end extreme inequality. Oxford: Oxfam International Report. Retrieved from <http://www.oxfam.org.uk/get-involved/campaign-with-us/our-campaigns/inequality-and-poverty>.
- Shane, S. A. (2003). *A general theory of entrepreneurship: The individual-opportunity nexus.* Edward Elgar Publishing.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of management review*, 25(1), 217-226.
- Shepherd, D. A. (2015). Party On! A call for entrepreneurship research that is more interactive, activity based, cognitively hot, compassionate, and prosocial. *Journal of Business Venturing*, 30(4), 489-507.
- Short, J., Moss, T.W., & Lumpkin, G.T. (2009). Research in social entrepreneurship: past contributions and future opportunities. *Strategic Entrepreneurship Journal*, 3, (2), 161-194.
- Sologon, D. M., & O'Donoghue, C. (2009). Increased Opportunity to Move Up the Economic Ladder? Earnings Mobility in EU: 1994-2001.
- Sørensen, A. B. (2000). Toward a sounder basis for class analysis. *American Journal of Sociology*, 105 (6), 1523-1558.
- Smeeding, T. M. (2005). Public Policy, Economic Inequality, and Poverty: The United States in Comparative Perspective. *Social Science Quarterly*, 86(s1), 955-983.
- Staub, E. (1984). Steps toward a comprehensive theory of moral conduct: Goal orientation, social behavior, kindness and cruelty. *Morality, moral development, and moral behavior: Basic issues in theory and research*, 241-260.
- Stephan, U., & Uhlaner, L.M. (2010). Performance Based vs. Socially Supportive Culture: A Cross-national Study of Descriptive Norms and Entrepreneurship. *Journal of International Business Studies*, 41(8), 1347–1364.
- Stephan, U., Uhlaner, L. M., & Stride, C. 2014. Institutions and social entrepreneurship: The role of institutional voids, institutional support, and institutional configurations. *Journal of International Business Studies*, 46(3), 308-331.

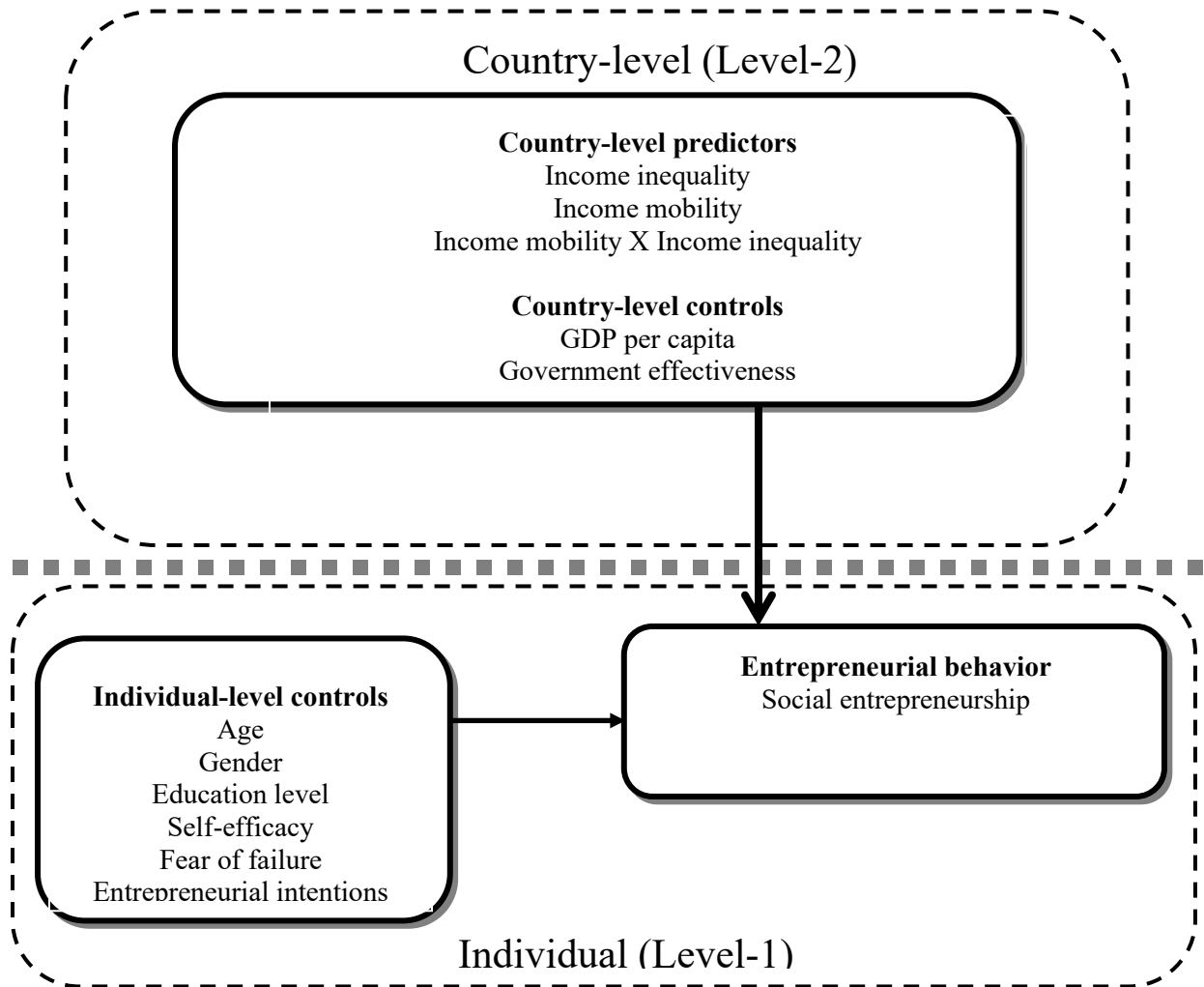
- Stiglitz, J. (2012). *The price of inequality*. UK: Penguin.
- Thompson, J. L. (2002). The world of the social entrepreneur. *International journal of public sector management*, 15(5), 412-431.
- Tobias, J. M., Mair, J., & Barbosa-Leiker, C. (2013). Toward a theory of transformative entrepreneuring: Poverty reduction and conflict resolution in Rwanda's entrepreneurial coffee sector. *Journal of Business Venturing*, 28(6), 728-742.
- Van Zanden, J, Baten, J., & Ercole, M.M.,. (2014) How was Life? Global Well-being Since 1820. Paris: OECD Publishing.
- Wagner, J., & Sternberg, R. (2004). Start-up activities, individual characteristics, and the regional milieu: Lessons for entrepreneurship support policies from German micro data. *The annals of regional science*, 38(2), 219-240.
- Warr, P. G. (1982). Pareto optimal redistribution and private charity. *Journal of Public Economics*, 19(1), 131-138.
- Welter, F. (2011). Contextualizing Entrepreneurship- Conceptual Challenges and Ways Forward. *Entrepreneurship Theory and Practice*, 35(1), 165-184.
- Wennberg, K., Pathak, S., & E. Autio. (2013). How Culture moulds the effects of Self-efficacy and Fear of Failure on Entrepreneurship. *Entrepreneurship and Regional Development*, 25 (9-10), 756-780.
- Whetten, D.A. (2009). An examination of the interface between context and theory applied to the study of Chinese organizations. *Management and Organization Review*, 5(1), 29–55.
- Wilkinson, R. G. (1996). *Unhealthy Societies: The Afflictions of Inequality*. London: Routledge.
- Wilkinson, R.G., & Pickett, K.E. (2007). The Problems of Relative Deprivation: Why some societies do better than others. *Social Science and Medicine*, 65(9), 1965-1978.
- Wilkinson, R.G., & Pickett, K.E. (2009). Income Inequality and Social Dysfunction. *Annual Review of Sociology*, 35, 493-511.
- Witte, C. T. (2013). *Cultural determinants of social entrepreneurship*.
- Woolard, I., & Klasen, S. (2005). Determinants of income mobility and household poverty dynamics in South Africa. *Journal of Development Studies*, 41(5), 865-897.
- World Bank (2012). *World Development Indicators 2012*. Washington DC: World Bank.

Xavier-Oliveira, E., Laplume, A. O., & Pathak, S. (2015). What Motivates Entrepreneurial Entry Under Economic Inequality? The Role of Human and Financial Capital. *Human Relations, Forthcoming*.

Zahra, S.A., Gedajloviv, E., Neubaum, D.O., & Shulman, J.M. (2009). A Typology of Social Entrepreneurs: Motives, Search Processes and Ethical Challenges. *Journal of Business Venturing, 24*(5), 519-532.

Zahra, S. A., & Wright, M. (2011). Entrepreneurship's next act. *The Academy of Management Perspectives, 25*(4), 67-83.

**Figure 1**  
**Theoretical framework**





**Table 1**  
**Sample descriptives**

| Country                  | N <sup>a</sup> | Social<br>Entrepreneurship<br>(%) | Income<br>Inequality<br>(Gini Index) | Income<br>Mobility<br>(%) |
|--------------------------|----------------|-----------------------------------|--------------------------------------|---------------------------|
| Argentina                | 1320           | 3.94                              | 46.10                                | 3.62                      |
| Brazil                   | 1504           | 0.73                              | 54.69                                | 4.52                      |
| China                    | 2324           | 3.06                              | 42.48                                | 4.35                      |
| Colombia                 | 1721           | 6.28                              | 56.70                                | 3.69                      |
| Denmark                  | 1050           | 3.90                              | 24.80                                | 6.08                      |
| Ecuador                  | 1563           | 0.40                              | 49.40                                | 4.08                      |
| Finland                  | 1106           | 2.89                              | 25.90                                | 6.36                      |
| France                   | 748            | 0.94                              | 29.30                                | 4.60                      |
| Germany                  | 3429           | 0.82                              | 29.50                                | 5.56                      |
| Greece                   | 1292           | 4.41                              | 34.27                                | 3.84                      |
| Guatemala                | 1535           | 2.61                              | 55.89                                | 4.58                      |
| Hungary                  | 1239           | 4.28                              | 31.18                                | 3.47                      |
| Iran                     | 2044           | 4.89                              | 38.28                                | 3.76                      |
| Israel                   | 1075           | 2.14                              | 39.20                                | 4.42                      |
| Italy                    | 1393           | 1.72                              | 33.70                                | 3.62                      |
| Japan                    | 859            | 1.00                              | 32.90                                | 5.62                      |
| Korea                    | 595            | 2.52                              | 31.40                                | 3.76                      |
| Malaysia                 | 938            | 1.00                              | 46.21                                | 5.37                      |
| Netherlands              | 1549           | 1.48                              | 29.40                                | 5.90                      |
| Russia                   | 662            | 2.11                              | 40.11                                | 3.91                      |
| Slovenia                 | 1663           | 2.71                              | 31.15                                | 4.59                      |
| South Africa             | 1715           | 3.32                              | 63.14                                | 4.58                      |
| Spain                    | 26902          | 0.70                              | 31.70                                | 4.69                      |
| Switzerland              | 1141           | 2.89                              | 30.30                                | 6.35                      |
| United Kingdom           | 15899          | 1.18                              | 34.20                                | 5.48                      |
| United States            | 2717           | 4.31                              | 40.81                                | 5.59                      |
| <b>Total<sup>b</sup></b> | <b>77,983</b>  |                                   |                                      |                           |

<sup>a</sup> Number of observations per country vary due to unequal resources available by GEM team in respective countries

<sup>b</sup> Weighted in order to give equal weights to all countries

**Table 2**  
**Descriptive statistics of all variables**

| <b>Variables</b>           | <b>N</b> | <b>Mean</b>       | <b>SD</b> |
|----------------------------|----------|-------------------|-----------|
| Social entrepreneurship    | 77,983   | 0.02 <sup>a</sup> | 0.13      |
| Age                        | 77,983   | 41.27             | 14.43     |
| Gender                     | 77,983   | 0.51              | 0.50      |
| Education level            | 77,983   | 2.01              | 1.03      |
| Self-efficacy              | 77,983   | 0.50              | 0.50      |
| Fear of Failure            | 77,983   | 0.41              | 0.49      |
| Entrepreneurial intentions | 77,983   | 0.13              | 0.33      |
| GDP per capita, USD        | 26       | 29007.73          | 13439.63  |
| Government effectiveness   | 26       | 0.20              | 0.82      |
| Income inequality          | 26       | 35.84             | 8.02      |
| Income mobility            | 26       | 4.86              | 0.67      |

<sup>a</sup> Multiplying this number would yield percent of social entrepreneurship as mean across countries, here shown as raw mean.

N=77,983, Weighted in order to give equal weights to all countries

**Table 3**  
**Correlation matrix for individual-level variables**

| <b>Variables</b>             | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> |
|------------------------------|----------|----------|----------|----------|----------|----------|----------|
| 1 Social entrepreneurship    | 1.00     |          |          |          |          |          |          |
| 2 Age                        | -0.04    | 1.00     |          |          |          |          |          |
| 3 Gender                     | -0.02    | 0.02     | 1.00     |          |          |          |          |
| 4 Education level            | 0.04     | -0.10    | -0.04    | 1.00     |          |          |          |
| 5 Self-efficacy              | 0.07     | -0.05    | -0.16    | 0.13     | 1.00     |          |          |
| 6 Fear of failure            | -0.03    | -0.06    | 0.07     | -0.05    | -0.12    | 1.00     |          |
| 7 Entrepreneurial intentions | 0.16     | -0.20    | -0.08    | 0.03     | 0.21     | -0.08    | 1.00     |

All correlations are significant at  $p < 0.05$ ;

N=77,983, Weighted in order to give equal weights to all countries

**Table 4**  
**Correlation matrix for country-level variables**

| Variables                  | 1     | 2     | 3      | 4     | 5    | VIF <sup>a</sup> |
|----------------------------|-------|-------|--------|-------|------|------------------|
| 1 Social entrepreneurship  | 1.00  |       |        |       |      | 1.17             |
| 2 GDP per capita, USD      | -0.15 | 1.00  |        |       |      | 5.72             |
| 3 Government effectiveness | -0.17 | 0.88* | 1.00   |       |      | 6.21             |
| 4 Income inequality        | 0.14  | 0.73* | -0.71* | 1.00  |      | 3.00             |
| 5 Income mobility          | -0.31 | 0.74* | 0.77*  | -0.38 | 1.00 | 3.77             |

\*p<0.05; N=26, <sup>a</sup>VIF= Variance Inflation Factor; VIF < 10.00 suggests that the variables do not suffer from multicollinearity (Hair, Anderson, Tatham, & Black, 1998); Social entrepreneurship in this table represents the national-aggregate rates created from individual-level responses.

**Table 5**  
**Effects on social entrepreneurship**

|   | <b>Model 1</b> | <b>Model 2</b> | <b>Model 3</b>       | <b>Model 4</b>        |
|---|----------------|----------------|----------------------|-----------------------|
| <b>Fixed part estimates</b>                           |                |                |                      |                       |
| <b>Individual-level</b>                               |                |                |                      |                       |
| Age   |                | 0.96**(0.00)   | 0.96**(0.00)         | -0.00(0.00)           |
| Gender  |                | 0.74***(0.02)  | 0.74***(0.02)        | -0.26***(0.03)        |
| Education level                                       |                | 1.01***(0.00)  | 1.01***(0.00)        | 0.00(0.00)            |
| Self-efficacy   |                | 2.15***(0.07)  | 2.15***(0.07)        | 0.76***(0.07)         |
| Fear of failure                                       |                | 0.90***(0.06)  | 0.90***(0.06)        | -0.10+(0.06)          |
| Entrepreneurial intentions                            |                | 5.41***(0.06)  | 5.41***(0.06)        | 1.71***(0.06)         |
| <b>Country-level</b>                                  |                |                |                      |                       |
| GDP per capita, USD                                   |                | 1.01***(0.00)  | 1.01***(0.00)        | 0.00*(0.00)           |
| Government effectiveness                              |                | 1.11(0.09)     | 1.11(0.09)           | 0.18*(0.08)           |
| <b>Income Inequality</b>                              |                |                | <b>1.33***(0.03)</b> | <b>0.25***(0.04)</b>  |
| <b>Income Mobility</b>                                |                |                | <b>0.69***(0.03)</b> | <b>-0.22***(0.06)</b> |
| <b>Income Mobility X Income Inequality</b>            |                |                |                      | <b>-0.05*(0.02)</b>   |
| <b>Random part estimates</b>                          |                |                |                      |                       |
| Variance of intercept                                 | 0.94           | 0.64           | 0.58                 | 0.56                  |
| percent of variance explained (ICC)                   | 22.18          | 16.40          | 14.95                | 14.56                 |
| <b>Model fit statistics</b>                           |                |                |                      |                       |
| Number of observations                                | 77 983         | 77 983         | 77 983               | 77 983                |
| Number of countries)                                  | 26             | 26             | 26                   | 26                    |
| Degrees of freedom (Number of variables in the model) | 0              | 8              | 10                   | 11                    |
| Chi-square  | -              | 1 149.05       | 1 149.54             | 1 150.07              |
| Probability > Chi-square                              | -              | ***            | ***                  | ***                   |
| Log likelihood  | -9 016         | -5 816         | -5 801               | -5 791                |
| Likelihood ratio (LR) test                            | ***            | ***            | ***                  | ***                   |

Standard errors in parentheses

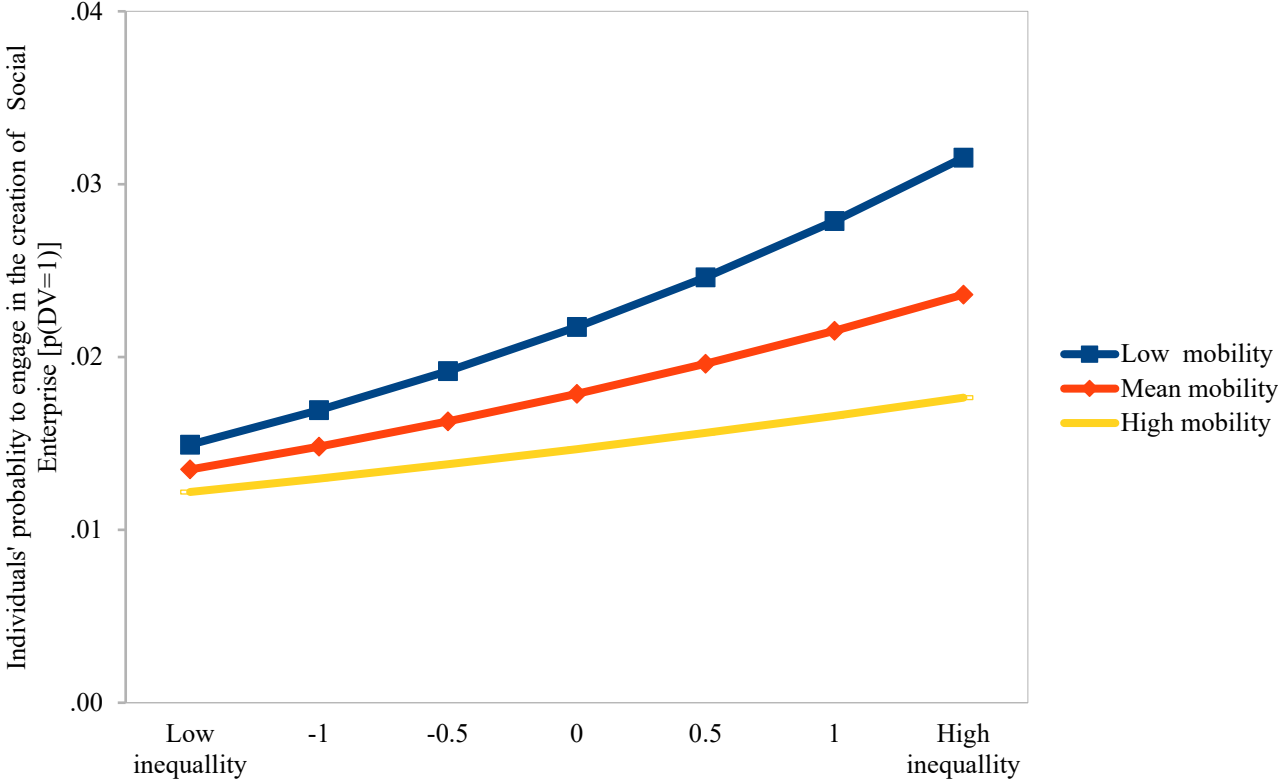
Note: Columns 2 and 3 represent odds ratio (OR) instead of regression estimates. OR values greater than 1 signal positive association. OR values smaller than 1 signal negative association. Column 4 represents regression estimates (beta-coefficients) and not OR

p < 0.001\*\*\*; p<0.01\*\*; p<0.05\*; p<0.1+;

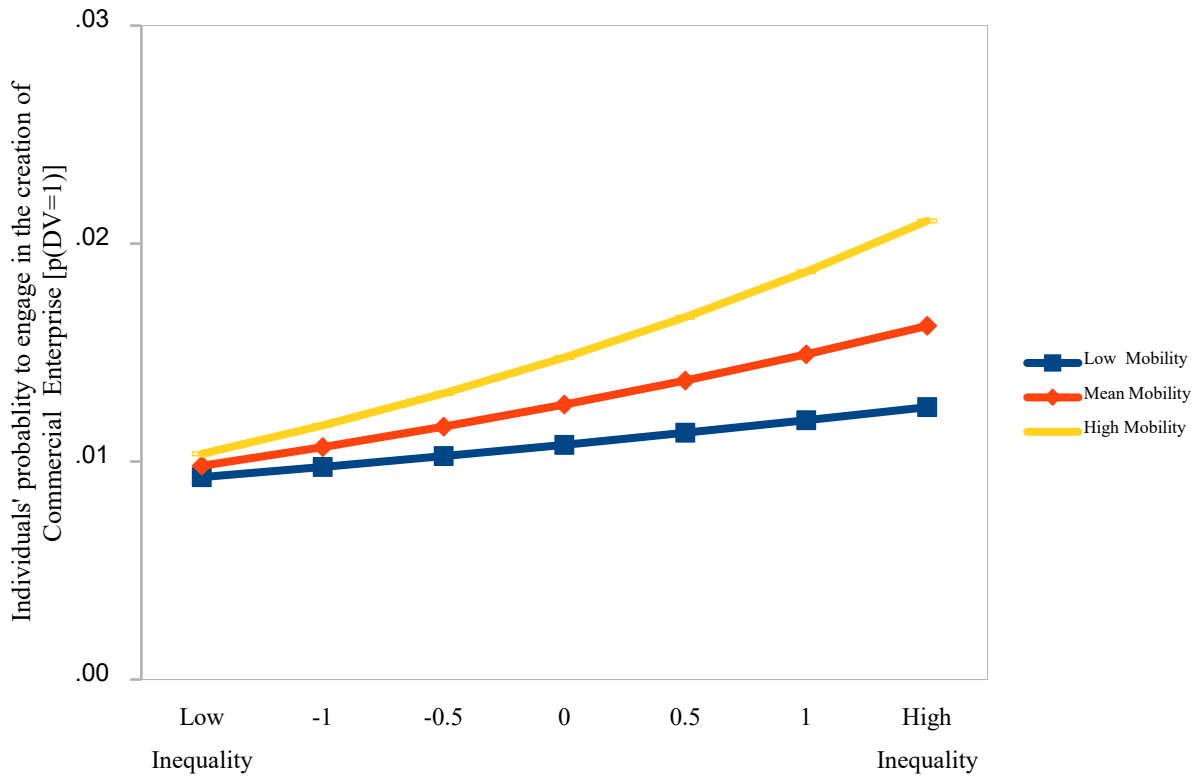
2-tailed significances for hypotheses; statistically significant LR test suggests that a multi-level model is preferred over OLS

Gradually decreasing absolute value of the log-likelihood across the models suggest that the model fit is progressively better.

**Figure 2**  
**Interaction between Income Mobility and Income Inequality (Social Entrepreneurship)**



**Figure 3**  
**Interaction between Income Mobility and Income Inequality (Commercial Entrepreneurship)**



**Appendix 1**  
**Operational definition, concept, and data source for each measure**

| Variables                  | Definition   | Source     |
|----------------------------|--|------------|
| <b>Country-level</b>       |  |            |
| Income Inequality          | Income Gini index Measure of income inequality [0 = perfect equality; 100 = perfect inequality] 2010 or the latest; Average value:36   | <i>WEF</i> |
| Income Mobility            | In your country, to what extent do individuals have the opportunity to improve their economic situation through their personal efforts regardless of the socioeconomic status of their parents? [1 = little opportunity exists to improve one's economic situation; 7 = significant opportunity exists to improve one's economic situation] 2013-2014 weighted average; Average value: 5 | <i>WEF</i> |
| GDP per capita in USD      | GDP Per Capita in USD at purchasing power parity; WB variable name <i>GDP, per capita (PPP)</i>  | <i>WB</i>  |
| Government Effectiveness   | Effectiveness of government policies; WGI variable name <i>government effectiveness</i>  | <i>WGI</i> |
| <b>Individual-level</b>    |  |            |
| Age                        | Age of the respondent; GEM variable name <i>age</i>  | <i>GEM</i> |
| Gender                     | Female =1, Male=0; GEM variable name <i>gender</i>   | <i>GEM</i> |
| Level of education         | None=0.1=some primary, 2=primary, 3=secondary, and 4=graduate; GEM variable name <i>gemeduc</i>  | <i>GEM</i> |
| Self-efficacy              | Whether the individual felt that he or she possessed the knowledge, skills, and experience required to start a new business (1= yes; 0= No)  | <i>GEM</i> |
| Fear of failure            | 1=yes if individuals were fearful of failure; 0 = no if they were not.   | <i>GEM</i> |
| Entrepreneurial Intentions | Defined as individuals who are expecting to start a new business within the next 36 months, but who have not yet taken any action (1=yes if individuals had entrepreneurial intentions; 0 = no if they did not)  | <i>GEM</i> |
| <b>Dependent Variables</b> |  |            |
| Startup- Social            | Nascent Entrepreneurs (1= survey respondent involved in social startup, 0 otherwise) created using GEM variable name <i>sestart</i>  | <i>GEM</i> |
| Startup- Commercial        | Nascent Entrepreneurs (1= survey respondent involved in commercial startup, 0 otherwise) created using GEM variable names <i>suboanw,</i>  | <i>GEM</i> |

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