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**Research Report**

## A comparative study on the institutional determinants of social entrepreneurial activity: The moderating effect of capitalism

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# A Comparative Study on the Institutional Determinants of Social Entrepreneurial Activity

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## The Moderating Effect of Capitalism

**Sabine Nadarević & Alexander Martin**

Flensburger Hefte zu Unternehmertum und Mittelstand

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### Beitrag

Die vorliegende Arbeit stellt eine stark überarbeitete Fassung der Masterarbeit von Frau Sabine Nadarević dar. Die Arbeit wurde am 31.01.2017 an der Europa-Universität Flensburg erfolgreich verteidigt. Die Arbeit wurde von Herrn Alexander Martin betreut.

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**A Comparative Study on the Institutional Determinants of Social  
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## Abstract

Social entrepreneurship intrigues researchers as well as practitioners because of its unique character: Social entrepreneurs apply business strategies to achieve a social mission and add value to society. As a young field of research, social entrepreneurship is still dominated by conceptual work and qualitative studies. By using the data of the Global Entrepreneurship Monitor (GEM 2009) and additional data sources, this study applies a comparative research design and investigates the determinants of social entrepreneurial activity. Following recent calls, it focuses on the impact of capitalism on social entrepreneurial activity on the national level. The objective of this study therefore is to investigate whether cross-country variations in social entrepreneurial activity can be explained by incorporating the type of capitalism. Drawing on institutional theory and on ideas derived from the debate on the varieties of capitalism, the joint impact of *gender equality*, *post-materialism* (both supply factors) and *capitalism* (demand factor) is investigated. Performing hierarchical multiple regressions (n=39), our results show that all factors contribute to explaining cross-country variations in social entrepreneurial activity, but they do so in different ways. In line with research, our study supports the finding that *post-materialism* unfolds the greatest impact on social entrepreneurial activity. The impact of *gender equality* is less clear and, overall, weaker. *Capitalism* itself, however, has no direct impact on social entrepreneurial activity. Instead, this factor seems to leverage the effect of *post-materialism* on social entrepreneurial activity. Based on these findings, we conclude that demand factors (such as capitalism) seem to play an important role in facilitating the impact of supply factors (such as post-materialism). It appears that demand factors do not work independently from supply factors, while the opposite seems to be valid. We further conclude that it is insufficient to have given demands for social entrepreneurial activity. Rather, demand for social entrepreneurial activity must be acknowledged, recognized, and valued as an opportunity for social entrepreneurship.

## **I. Introduction**

Social entrepreneurs are a rare type of species. Compared to the prevalence of regular entrepreneurs, social entrepreneurial activity (SEA) is far less widespread than economic entrepreneurial activity (Lepoutre et al., 2013). The contemporary concept of social entrepreneurship exists now for more than two decades in Europe and the US (Defourny, 2009; Short et al., 2009), while its antecedents can be traced back to the early nineteenth century (Bornstein, 2007). However, due to the resurgence of neo-liberalism and substantial cutbacks in social welfare, social problems have become more pressing in modern society (Dardot & Laval, 2014). By offering copious resources to social entrepreneurs, policies aim at solving social and economic problems simultaneously (Austin et al., 2006; Santos, 2012; Dey, 2014). Indeed, solving social problems with economic means renders this concept attractive for governments worldwide: „In a world filled with poverty, environmental degradation, and moral injustice, social enterprises offer a ray of hope.” (Smith et al., 2013, 407) This ray of hope is hybrid in the sense that social entrepreneurial activities address social needs and target the society as well as the solution of economic problems (Stevens et al., 2015). This turns social entrepreneurship into a highly paradox endeavor (Dacin et al., 2010).

Social entrepreneurship is a relatively new research field (Rey-Martí et al., 2016). Strongly triggered by practical needs, as mentioned above, an intensive academic debate on social entrepreneurship has started around the beginning of the second millennium (Stephan et al., 2015). As a young discipline, social entrepreneurship research faces the challenges of ongoing definitional debates and unclear theoretical underpinnings (Choi & Majumdar, 2014; Dacin et al., 2011; Mair & Martí, 2006; Short et al., 2009). Although there is a growing body of quantitative research on social entrepreneurship (e.g. Griffiths et al., 2013; Hechavarría, 2016; Stephan et al., 2015; Urban & Kujinga 2017), most of the work in the field is definitional/conceptual (e.g. Santos, 2012) or qualitative (e.g. Cherrier et al., 2018; Singh, 2016). Still, we have some evidence about the character and the capabilities of social entrepreneurs (e.g. Dacin et al., 2011; Facca-Miess & Nicholas, 2014; Hockerts, 2017; Seelos

& Mair, 2005). Despite that, our knowledge of the institutional drivers of social entrepreneurial activity seems to be limited, especially when it comes to understanding national variations in social entrepreneurial activity. Overall, we lack theoretical progress in explaining social entrepreneurial activity (Dacin et al., 2011; Short et al., 2009; Stephan et al., 2015). Therefore, the main research objective of this article is to shed some light on the institutional factors that explain the given variance in social entrepreneurial activity across nations which ranges from 11.7% in Tonga to 0.17% in Saudi Arabia (GEM 2009).

The few studies that investigate the drivers of social entrepreneurial activity show that some factors are more important than others. Verheul et al. (2002; see also Stephan et al., 2015) distinguish two categories of factors: supply and demand factors. *Supply factors* provide people with knowledge and resources that enable them to become entrepreneurs. In contrast, *demand factors* create entrepreneurial opportunities that can be exploited. Overall, supply factors seem to play a more important role in explaining differences in social entrepreneurial activity than demand factors do (Stephan et al., 2015). We build on these findings and further explore them by investigating the joint impact of two supply factors (post-materialism and gender equality) and one demand factor (capitalism) on social entrepreneurial activity. With respect to the last of the three factors, we argue that the type of capitalism (e.g. Hall & Gingerich, 2009; Hall & Soskice, 2001) plays an important role in explaining social entrepreneurial activity (Kibler et al., 2018; Lepoutre et al., 2013; Mair, 2010). More precisely, we argue that liberal market economies create a greater demand for, and thus opportunity for, social entrepreneurial activity compared to less liberal market economies. Thus, we expect to find a higher level of social entrepreneurial activity in liberal market economies compared to less liberal market economies. Contrary to our theorizing, however, our results show that the type of capitalism does not have a direct impact on social entrepreneurial activity. However, demand factors should not be fully neglected. Rather than having a direct impact, they seem to facilitate the impact of supply factors. As shown in the result section, the type of capitalism positively moderates the impact of post-materialism on social

entrepreneurial activity. In countries with a liberal market economy the impact of post-materialism on social entrepreneurial activity is relatively greater compared to countries with less liberal market economies. However, this finding only applies to post-materialism as we cannot confirm a moderating effect between capitalism and gender equality.

This article contributes to the existing literature in two ways: Firstly, by investigating the role of capitalism in social entrepreneurial activity empirically. According to our knowledge, only a very limited number of papers (e.g. Kibler et al., 2018) have taken capitalism directly in account when it comes to explaining differences in social entrepreneurial activity on a national level. However, some papers focus on the size of government (e.g. Estrin et al., 2013a) or government activism (e.g. Stephan et al., 2015), which shows some similarities to our approach. This article broadens the scope of the institutional factors relevant for explaining social entrepreneurial activity which, in turn, may allow for more robust explanations in the future (Dacin et al., 2010, 2011; Mair & Martí, 2006; Santos, 2012; Stephan et al., 2015). Following Stephan et al. (2015), we investigate the joint impact of a formal institution (capitalism) and informal institutions (gender equality and post-materialism) on social entrepreneurial activity. Secondly, by showing that capitalism moderates the relationship between post-materialism and social entrepreneurial activity, we highlight the nested and interlaced nature of institutional factors explaining variances in social entrepreneurial activity on a national level.

This article is structured as follows. We first give an introduction into social entrepreneurship and present recent findings. Our focus is on quantitative studies that aim to explain variation in the level of social entrepreneurial activity across countries. Thus, our perspective towards social entrepreneurship is institutional or structural (see also Klein, 2008). After this, we discuss the varieties of capitalism approach. We consider this approach an institutional theory (Jackson & Deeg, 2008). In what follows, we give a brief overview of our model, which combines two well-established supply factors (post-materialism and gender equality) with one demand factor (type of capitalism). Three hypotheses are developed and tested using



hierarchical multiple regression analysis. Data and findings are presented and discussed in the following paragraphs. The article ends with a reflection on its limitations and brief remarks for further research.

## **II. What is Social Entrepreneurship?**

Social entrepreneurship is mostly defined as a special type of entrepreneurship. For example, Austin et al. (2006, 1) regard social entrepreneurship as “entrepreneurial activity with an embedded social purpose”, whereas Mair and Martí (2006, 37) state that social entrepreneurship is the “process involving the innovative use and combination of resources to pursue opportunities to catalyze social change and/or address social needs.” A closer look reveals that there is no uniformly recognized definition of social entrepreneurship (Choi & Majumdar, 2014; Short et al., 2009). Werawardena and Mort (2006) for example provide more than fifteen definitions of social entrepreneurship (see also Hill et al., 2010). However, there seems to be some consensus concerning the basic characteristics of social entrepreneurship (Singh, 2016; Stevens et al., 2015). Social entrepreneurs differ from commercial entrepreneurs as their primary mission is to create social value instead of appropriating economic value (Santos, 2012; Zahra et al., 2009). Thus, it is their social mission that makes them social entrepreneurs. While some authors argue that social entrepreneurs make profit through the provision of social goods, others regard social entrepreneurship as a mean to change the social sector (Cherrier et al., 2018). However, social entrepreneurs differ from charitable organizations as they apply business methods to achieve their social mission. Thus, while their primary mission is social, the ways in which they aim to achieve their objectives are not and social enterprises need to acquire resources through market success. Therefore, a social entrepreneur “combines a passion for social work with discipline, innovation, strategy, market analysis and vision of company among other skills and competences to develop projects to create social value.” (Niño, 2015, 86) Hence, social entrepreneurs need to deal with the competing and contradictory pressures of shareholder demands and the purpose of being social (Austin et al., 2006). Finally, the outcome of social entrepreneurial activity is innovation, which should serve those worse-off in a society.

Social entrepreneurship therefore contributes to the social and economic development of less-developed communities and societies (Mair & Martí, 2006).

One stream of literature argues that the institutional context plays an important role in explaining differences across organizations and nations. For example, Monroe-White et al. (2015) show that 46.7 percent of variance in organizational forms of social enterprises is explained through the national context. While the national context is important, others argue that the local context is important too, or even more so (e.g. Dacin et al., 2011; Mair, 2010; Santos, 2012). Social entrepreneurial activities may start in local settings and spread to the national level. In an ethnographic study, Cherrier et al. (2018) argue that in emerging markets institutional complexity increases the likelihood of social entrepreneurial activity by providing multiple opportunities. Others conclude that institutional complexity rather inhibits social entrepreneurial activity (e.g. Mair et al., 2012). Overall, the institutional context seems to play an important role in explaining social entrepreneurial activity (e.g. Muñoz & Kibler, 2016; Urbano et al., 2010, 2017; Seelos et al., 2011).

In explaining the emergence and prevalence of social entrepreneurial activity, research often applies theories from the non-profit sector (Hoogendoorn, 2016; Lepoutre et al., 2013; Nissan et al., 2012; Salamon & Anheier 1998), within which two major schools of thought can be distinguished (Verheul et al., 2002; see also Stephan et al., 2015): theories that center around the idea of institutional failure and demand on the one hand, and theories that focus on the supply-side. Both schools of thought argue that the institutional context determines the choice of an individual to become a social entrepreneur. The core idea of *theories of institutional failure and demand*, which include government failure theory (e.g. Orbach, 2013), market failure theory (e.g. Bator, 1958) and welfare state theory (e.g. Pierson et al., 2014), is that institutions fail in satisfying basic human needs. This failure, in turn, creates demand for social services and therefore offers opportunities for (social) entrepreneurs. Factors associated with institutional failure and demand are for example low economic or technological development of one country (Verheul et al., 2002; Lepoutre et al., 2013). The emergence of social entrepreneurial activity becomes a

function of institutional failure and depends on the institutional setting (see also Klein, 2008). Institutional demand factors promote social entrepreneurial activity by providing objectively given opportunities that individuals can act upon and exploit. In contrast, supply theories focus on institutional (as well as individual) factors that affect the availability of potential entrepreneurs instead of the availability of entrepreneurial opportunities. Individuals are enabled to become social entrepreneurs by the institutional provision of resources, which these individuals can act upon. Examples are the age structure of a population, population density, urban growth, distribution of income and property or the labor participation of women (Verheul et al., 2002). Moreover, supply factors support social entrepreneurial activity by shaping individual and social motives, preferences, and properties. Culture, for example, represents an important supply factor, which may shift the attitudes and preferences of individuals within one society towards social entrepreneurship (e.g. Hechavarría, 2016; Hechavarría et al., 2017; Stephan et al., 2015). Supply factors therefore promote social entrepreneurial activity by providing material and immaterial resources, which increase the availability of social entrepreneurs, while demand factors promote social entrepreneurship by providing opportunities for social entrepreneurs.

The few quantitative studies on the determinants of social entrepreneurial activity indicate a tendency towards the greater importance of supply factors in explaining social entrepreneurial activity compared to demand factors. Most of the studies investigate the role of culture in predicting social entrepreneurial activity. Stephan et al. (2015) for example find that post-materialism and socially supportive cultural norms each significantly promote social entrepreneurial activity. All factors represent supply factors. Their study also shows a positive impact of government activism on social entrepreneurship, which provides further support for the supply perspective. Further on, they find a negative interaction effect of government activism with post-materialism, which means that individuals are less likely to engage in social entrepreneurial activity in nations with high governmental activism *and* a strong post-materialistic value orientation. Hechavarría (2016) also finds that the national

value system contributes to explaining differences in social entrepreneurial activity. Overall, an orientation towards post-materialism thus seems to promote social entrepreneurial activity. Urbano et al. (2010, 2017) also support the relevance of supply factors in determining social entrepreneurial activity. In their work they show that both individual attitudes and social values are of importance for the emergence of social entrepreneurial activity. These attitudes and values provide the mindset and preferences that are needed to identify and start social entrepreneurial activities. Griffiths et al. (2013) find that socio-political factors are of major relevance in explaining social entrepreneurial activity. They show that gender equality particularly predicts social entrepreneurial activity. In contrast, empirical evidence supporting the relevance of demand factors in explaining social entrepreneurial activity seems to be less clear. Estrin et al. (2013a) for instance find that government size negatively correlates with social entrepreneurial activity. Countries with smaller government size thus create a higher demand for social initiatives. To sum up, social entrepreneurial activity seems to largely depend on institutional factors (e.g. Muñoz & Kibler, 2016; Urbano et al., 2010, 2017; Seelos et al., 2011). Supply factors as opposed to demand factors seem relatively more important in explaining social entrepreneurial activity (Stephan et al., 2015). Among these factors, post-materialism seems to have the greatest impact on social entrepreneurial activity. However, up to now and according to our knowledge, only a very limited number of studies (e.g. Kibler et al., 2018; see for a related account, for example, Griffiths et al., 2013; Estrin et al., 2013a; Stephan et al., 2015) have empirically investigated the relation between capitalism and social entrepreneurial activity (Lepoutre et al., 2013; Mair, 2010).

### **III. Varieties of Capitalism and Entrepreneurship**

Institutional theory (e.g. Campbell, 2004; Scott, 2004, 2008) investigates how institutions influence individual or organizational behavior. Institutional theory consists of different approaches and ideas. Therefore, it best be regarded a composed set of different theoretical streams rather than one coherent theory (Scott, 2008). Interdisciplinary by its origins, institutional theory offers a broad understanding of what

an institution is and how it operates upon human behavior. Consequently, the term institution is relatively unclear. An institution might be a codified contract, which formally determines individuals' choices by defining rules of behavior and means of sanctioning in the case of deviation (Scott, 2008). Institutions might equally be represented by social norms or culturally shared values (Hall & Taylor, 1996). Thus, one may follow Hodgson (2006, 2) who argues that "without doing much violence to the relevant literature, we may define institutions as systems of established and prevalent social rules that structure social interactions." North (1994, 361) defines institutions as "the rules of the game, organizations and their entrepreneurs are the players." Institutions state which behavior is legal, cognitively meaningful, socially desired, or morally acceptable within one community or society. Individuals and organizations adhere to institutions to coordinate their behavior and to receive acceptance and legitimacy.

Integrating the institutional context into theorizing can be done in different ways. Focusing on capitalism is one way. Research on comparative capitalism originates in comparative political economy and offers a distinctive institutional theory (Jackson & Deeg, 2008). Among other things, comparative capitalism asks how national institutions influence the behavior of individual and organizational actors alike. The varieties of capitalism approach (e.g. Akkermans et al., 2009; Hall & Gingerich, 2009; Hall & Soskice, 2001; Hancké, 2009; McMenamin, 2012; Taylor, 2004) is the most recognized conceptualization in this field (Howell, 2003). This approach deals with the question of how different institutions of the political economy affect behavior and economic performance of firms and nations (Hall & Gingerich, 2009). The core idea is that firms are both part of and embedded in the political economy. A political economy consists of different institutional spheres: corporate governance/financial system, industrial relations, education and training, inter-firm relations, and firm-employee relations (Hall & Gingerich, 2009; Hall & Soskice, 2001). Firms coordinate their actions with other firms in the context of institutional complementarities, which enable the efficient configuration of an economy and efficient business behavior (Hall & Gingerich, 2009; Hall & Soskice, 2001). Thus, it is argued that amongst

other institutional factors differences in the labor market, the training systems or the economic relationships, for example, impact firms on how they best coordinate their resources in order to be competitive and innovative (Lam, 2006).

In a political economy, there are two principles of coordination (Hall & Gingerich, 2009; Hall & Soskice, 2001): In competitive markets, or so-called *liberal market economies (LME)*, coordination is based on arm's-length contracts. Prices signal how to coordinate firm and individual behavior. In *coordinated market economic (CME)* firms coordinate their behavior with others strategically. In the latter, economic outcome depends on the institutional support available for the formation of credible commitments. This includes regulatory support for effective information sharing, monitoring, or sanctioning. In coordinated market economies, successful firms need to rely on long-term commitments with other actors. However, regardless of the type of the political economy, firms need to develop high-level congruencies between their activities and their institutional setting to survive and prosper. In other words, the institutional setting determines suitable economic behavior. Further on, the varieties of capitalism approach is linked to research on innovation and innovation systems and helps to understand why there are dominant types of innovation strategies to be found within societies (Allen, 2013; Hollingsworth, 2000; see also Akkermans et al., 2009). Moreover, "with such a perspective, one can gain a rich understanding of why some societies excel in the production of radical breakthroughs in basic and applied science and in developing radically new products and why other societies excel in more incremental innovations." (Hollingsworth, 2000, 627) Liberal market economies with less regulation, short-term orientation (e.g. labor market, financing, ownership) and flux institutional arrangements tend to promote radical innovation, while coordinated market economies provide the institutional configuration to come up with incremental innovation (e.g. Kibler et al., 2018; Hall & Soskice 2001).

If market liberalization leads to a decline of the social welfare state, then one might expect fewer social services to be provided by the government (Dardot & Laval, 2014). Social entrepreneurship can fill this gap by offering new solutions for

prevailing social (and economic) problems. Put against this background, some authors (e.g. Kibler et al., 2018; Lepoutre et al., 2013; Mair, 2010; Stephan et al., 2015) assume that the institutional configuration of an economy, as put center-stage by the varieties of capitalism approach, helps to explain differences in social entrepreneurial activity across countries. For example, Kibler et al. (2018, 944), in an expert evaluation study, conclude “that social enterprises are perceived as a more efficient solution to social problems when a liberal or socialist logic dominates a given state’s market coordination and social welfare provision”. This seems to be valid, according to their findings, if the institutional setting is coherent, meaning that institutional logics are not in conflict with each other. In line with related literature (e.g. Austin et al., 2006; Dacin et al., 2011; Estrin et al., 2013a; Kibler et al., 2018; Lepoutre et al., 2013; Mair, 2010; Stephan et al., 2015), we argue, as shown later, that the decline of the social welfare state as associated with liberal market economies will lead to an increased demand and therefore to more opportunities for social enterprises.

## **IV. Model and Hypotheses**

### **Gender Equality and Social Entrepreneurial Activity**

Research suggests that gender equality promotes social entrepreneurial activity either by simply increasing the number of potential wage earners in the labor market *or* by providing normative support, i.e. acceptance and legitimacy of female entrepreneurship (Griffiths et al., 2013).<sup>1</sup> Entrepreneurship research (e.g. Baughn et al., 2006; Elam & Terjesen, 2010) supports the latter line of argumentation. It is suggested that gender equality exerts a normative influence on societies, which in turn impacts entrepreneurial activity. Gender equality unfolds its impact on accepted behaviors of men and women equally. Thereby, the impact on social entrepreneurial

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<sup>1</sup> Examples for countries with comparatively low normative support for female entrepreneurship are Korea, Switzerland and Japan, whereas countries with relatively high normative support for female entrepreneurship are Hong Kong, Finland, Norway and Thailand (Baughn et al., 2006; GEM, 2003; GEM 2002).

activities is twofold. *Firstly*, entrepreneurship or the intention of becoming an entrepreneur is traditionally associated with typically male characteristics (Gupta et al., 2019; Gupta et al., 2009). These characteristics are for example a distinct strive for rationality, instrumental and strategic behavior, or an orientation towards competitiveness, success, power, and profit (Bird & Brush, 2002). Social role theory of sex differences argues that people act in accordance with behavioral expectations attached to their gender role to receive societal acceptance (Eagly et al., 2000). Thus, men behave accordingly to typical role expectations when becoming an entrepreneur while female entrepreneurs deviate from typical role expectations when doing so. This may explain while male entrepreneurship is generally more common than female entrepreneurship (e.g. Arenius & Minniti, 2005; Estrin et al., 2013a; Hechavarría et al., 2012; Kelley et al., 2013). However, gender equality tends to blur the borders of gender roles by rendering roles more permeable and it increases social acceptance for females being engaged in entrepreneurial activity (Baughn et al., 2006). This process applies for commercial and social entrepreneurship equally. Therefore, gender equality exerts a normative effect on females by increasing societal support for female entrepreneurship (Baughn et al., 2006). *Secondly*, classical female role expectations tend to coincide with attributes of *social* entrepreneurship (Eagly et al., 2000; Hechavarría et al., 2012). Social entrepreneurs are motivated by caring, compassion and consciousness for the suffering of others (Miller et al., 2012). Women tend to focus more on the attainment of social goals and values than men do (Hechavarría et al., 2012). Hechavarría et al. (2017, 225), for example, conclude that “women entrepreneurs are more likely than men to emphasize social value goals over economic value creation goals”. Accordingly, the proportion of women to men in social entrepreneurial activity is greater than the proportion of women to men in regular entrepreneurial activity (Hechavarría et al., 2012). In line with the normative effect of gender equality regarding the legitimization and acceptance of women behaving men-alike (as mentioned above), we expect that same effect on men for behaving typically female. Thus, gender equality should render typically female behavior (e.g. caring for others) socially acceptable for men. Accordingly, it is hypothesized that gender equality increases the acceptance for social entrepreneurship



performed by men. Gender equality therefore increases the number of women and men alike that perceive *social entrepreneurship* as a valid behavioral option. Thus, gender equality enhances the supply of female entrepreneurs engaged in any kind of entrepreneurship (but most likely social entrepreneurship since typical role expectations are not fully replaced by new ones) as well as the supply of male entrepreneurs that are engaged in social entrepreneurial activities. Increased gender equality is therefore reflected in social entrepreneurial activity. In line with Griffiths et al. (2013), we propose that:

*H1: The degree of gender equality is positively associated with the degree of social entrepreneurial activity of a country.*

### **Post-materialism and Social Entrepreneurial Activity**

Many studies argue that culture plays an important role in explaining social entrepreneurial activity. Regarded as an informal institution (Hechavarría, 2016), culture “shapes the structures and mechanisms of social order that in turn impact new firm creation” (Hechavarría & Reynolds, 2009, 428). Post-materialist values operate as “*cognitive institutions*”, as opposed to “*normative institutions*” such as a socially supportive culture (Stephan et al., 2015) and largely contribute to our understanding of the determinants of social entrepreneurial activity (e.g. Hechavarría, 2016; Stephan et al., 2015; Urbano et al., 2010, 2017). In most studies the underlying argumentation is based on Inglehart’s Theory of Value Change (1971, 1981, 2000). Inglehart’s theory argues that both individual and societal values change as economic development progresses. Generations that share the experience of unmet basic human needs, for example the need for security and food, tend to favor materialist values. In the case of economic development and prosperity, following generations grow up in relatively unquestioned physical security. They start to prioritize post-materialist values such as self-expression, tolerance, autonomy, openness, or protection of the environment (Inglehart, 2000) over materialist values. The term post-materialism is used to describe the set of these cultural values (Stephan et al., 2015).

Overall, comparative entrepreneurship research argues that cultural values unfold a strong impact on entrepreneurial activity (e.g. Bruton et al., 2010; Hayton et al., 2002). These values impact the supply of entrepreneurs by shaping their motives, values, and beliefs. If social entrepreneurs prioritize social value creation while material goals are secondary for them, one can expect a higher number of social entrepreneurs in post-materialist societies than in materialist ones. Consequently, it has been observed that post-materialist values strongly promote social entrepreneurial activity (e.g. Hechavarría, 2016; Stephan et al., 2015). Thus, post-materialism positively correlates with the strive for social goals and autonomy (Stephan et al., 2015). This increases the likelihood of individuals being engaged in social entrepreneurship. Moreover, research (e.g. Hechavarría & Reynolds, 2009; Morales & Holtschlag, 2013; Uhlaner & Thurik, 2007) argues that a strong orientation towards post-materialism tends to weaken commercial entrepreneurship since post-materialist values are not fully consistent with materialistic values that primarily drive commercial entrepreneurship. Taking these arguments together, we propose in line with the literature:

*H2: The degree of post-materialism is positively associated with the degree of social entrepreneurial activity of a country.*

### **Capitalism and Social Entrepreneurial Activity**

Overall, Mair (2010) argues that liberal market economies, fulfill fewer social needs compared to coordinated market economies (see also Austin et al., 2006; Dacin et al., 2011; Estrin et al., 2013b; Kibler et al., 2018; Lepoutre et al., 2013; Stephan et al., 2015). Therefore, one may expect a greater demand for social services in liberal market economies. This demand may represent objectively given opportunities (see also Shane & Venkataraman, 2000; Klein, 2008) to be exploited by social entrepreneurs. In this article we focus on the institutional sphere of labor relations as in many countries social entrepreneurial activity originated in endeavors aiming at the integration of people into the labor market (Defourny, 2009; Kerlin, 2009). Still, a major part of social enterprises addresses problems like precarious working conditions and unemployment (Mair et al., 2012). In the labor market employees offer

their manpower in exchange for money (Corner & Ho, 2010; Defourny, 2009; Mair et al., 2012; Seelos & Mair, 2005). In coordinated market economies on the one hand, industrial relations are strongly influenced by the workers' representatives and characterized by a strong orientation towards consensus in negotiations, which in turn leads to a relatively high level of employment security (Hall & Soskice, 2001). In liberal market economies, on the other hand, industrial relations are characterized by asymmetric and unbalanced power relationships in which the influence the workers' representatives is limited. Employers therefore have a great deal of flexibility in the short-term adjustment of the workforce structure. Schroeder (2009), for example, finds that both employment protection regulations and public social expenditure are lower in liberal market economies compared to coordinated market economies. Furthermore, social expenditure is positively correlated with the power of labor unions. In other words, there is a negative correlation between liberal welfare policy and the power of labor unions. The more liberal an economy the weaker the labor provision concerning employment security and the smaller public social spending (Schroeder, 2009). Overall, a lower level of regulation of labor market comes with less employment or social protection and higher flexibility of employers in hiring and firing their staff. Therefore, employee turnover is greater in liberal market economies than in coordinated ones, which creates a greater demand for social entrepreneurial activity as there is a higher chance of finding and serving unmet social needs in respect to work and work security. Thus, we argue that the probability of job loss is higher in liberal market economies and that there is less private and governmental wage continuation compared to coordinated market economies. This creates a higher demand for re-training or job integration measures, for example. Since the expected returns in these fields tend to be small as the spending power of the target group is generally low, there is limited motivation for commercial entrepreneurs to meet this demand and to exploit these opportunities. Since social entrepreneurs aim for social returns rather than economic gains, one should expect a higher-level of social entrepreneurial activity in liberal market economies. These economies tend to create a greater demand for social activities than coordinated market economies due to a larger amount of unmet social needs (see also Austin et

al., 2006; Dacin et al., 2011; Estrin et al., 2013a; Kibler et al., 2018; Lepoutre et al., 2013; Mair, 2010). Based on this argumentation, we state:

*H3: The degree of market liberalization is positively associated with the degree of social entrepreneurial activity of a country.*

## **V. Data and Method**

### **Data Sources**

To test our hypotheses, we resampled a data set comprising 39 nations<sup>2</sup> (n=39) and performed a hierarchical multiple regression. Data was collected from different publicly accessible sources. These sources are the Global Entrepreneurship Monitor 2009 (GEM, 2009), the Global Competitiveness Report 2008/2009 of the World Economic Forum (WEF, 2008), the Integrated Values Surveys from World Values Survey (WVS) / European Values Study (EVS) 1999-2008 (WVS, 2015; EVS, 2015), the World Economic Outlook Database 2008 (WEOD, 2008), the Worldwide Governance Indicator Database (WGID, 2009) and the Doing Business Report 2008 of the World Bank (World Bank, 2007). Data of the dependent variable was collected in 2009 while data used for the explanatory variables as well as the controls was collected during the period from 1999 to 2008, making sure that there is at least a time lag of one year between the dependent and the explanatory variables (Pearl, 2000).

### **Dependent Variable: Social Entrepreneurial Activity**

The Global Entrepreneurship Monitor (GEM) collects data about individual entrepreneurial activity on an annual basis starting in 1999 (Kelley et al., 2016). It is widely regarded as the best data source for the comparative analysis of

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<sup>2</sup> The following countries are included in our sample: Argentina, Algeria, Belgium, Bosnia and Herzegovina, Brazil, Chile, China, Germany, Finland, France, Greece, Great Britain, Guatemala, Iceland, Israel, Italy, Jordan, Colombia, Croatia, Latvia, Malaysia, Morocco, Netherlands, Norway, Peru, Romania, Russia, Saudi-Arabia, Switzerland, Serbia, Slovenia, Spain, South Africa, Korea, Uganda, Hungary, Uruguay, USA, Venezuela.

entrepreneurship (Lepoutre et al., 2013). Surveys are conducted via phone or face-to-face. The sample size of at least N=2000 per country can be considered representative (Terjesen et al., 2011). Data is weighted by different characteristics such as age and gender. In 2009 questions were added to the GEM to gain insights into social entrepreneurial activity (Bosma & Levie, 2009). To account for both the variance in existing conceptions of social entrepreneurship and the broad usability of the data, three dimensions of social entrepreneurship were taken into consideration: primary social mission, importance of innovation, and the role of earned income (Lepoutre et al., 2013). Measuring social entrepreneurial activity, the so called early-stage of social entrepreneurial activity (SEA) is central (Bosma & Levie, 2009; Lepoutre et al., 2013; Terjesen et al., 2011). SEA captures the percentage of the adult population (18-64) that is actively involved in (planning) social entrepreneurship activities or a social start-up (nascent entrepreneurs) or that is the owner of a young social enterprise (young business owners). Thus, the SEA covers adults that are either planning to soon become social entrepreneurs or which are already social entrepreneurs. Overall, the GEM 2009 contains 150.000 individuals across 49 participating countries that were asked about their social entrepreneurship activities (Terjesen et al., 2011). As many other studies in the field (e.g. Stephan et al., 2015), we measured social entrepreneurial activity by using the SEA of the GEM 2009.

## **Explanatory Variables**

### *Gender Equality*

We used the Global Competitiveness Report (GCR) 2008/2009 (WEF, 2008) to measure gender equality. Key element of the GCR is the Global Competitiveness Index. This index measures the competitiveness of more than 100 countries (WEF, 2008) and is built based on 100 single items (WEF, 2008). These items are regularly used in entrepreneurship research (e.g. Griffiths et al., 2013; Terjesen & Hessels, 2009; Wennekers et al., 2005). Following Griffiths et al. (2013), gender equality is measured by the relative number of women in the labor force. More precisely, in the GCR gender equality is measured as the percentage of women in the age between 14 and 65 that are participating in the labor force divided by the percentage of men of

the same age that participate in the labor force. Consequently, gender equality increases with the relative number of women in the labor force.

### *Post-materialism*

Following Hechavarría et al. (2017) and others, post-materialism is measured using the 4-item-index developed by Inglehart (1998). Data for this index was provided by the World Values Survey (WVS) and the European Values Study (EVS). Both surveys focus on the collection of human values and value orientations. The EVS contains data of 47 countries while the WVS does so for almost 100 countries worldwide. To enable a comprehensive data analysis, data of both the EVS and the WVS were pooled (Hechavarría et al., 2017). This resulted in data for the years 1981 to 2004 covering a total of 113 countries. Moreover, we integrated the survey waves 4/5 of the WVS and waves 3/4 of the EVS. In cases where we had more than one value for the post-materialism of one country, we used the means of these values. The data ultimately covers the period from 1999 to 2008. As mentioned, we ensured a time lag of at least 1 year between the dependent and the explanatory variable (Pearl, 2000). Post-materialism is thereby measured as the percentage of a population that has been identified as post-materialist (Stephan et al., 2015). To evaluate if a person is considered as post-materialist or not, they were asked the following question (Inglehart, 1971, 994; see also, for example, Hechavarría et al., 2017): „If you had to choose among the following things, which are the two that seem most desirable to you?“ Possible answers are: [1] Maintaining order in the nation, [2] giving the people more say in important political decisions, [3] fighting rising prices or [4] protecting freedom of speech. Respondents who answered 1 and 3 are considered materialists while those who chose the items 2 and 4 are recognized as post-materialists. Others are considered mixed types (Inglehart, 1981). The 4-item index ranges from 0 to 100. The higher the value, the stronger the post-materialist orientation in the respective country.

### *Type of Capitalism (Market Liberalization)*

Hall and Soskice (2001; see also Hall & Gingerich, 2009) offer different options how to measure the type of capitalism. It is suggested that the measurement is best

compiled using multiple indicators. These indicators are for example the extent to which employees have influence on the configuration of the labor relations, the degree of employment security or the character of the employer-employee relation. Taking serious constraints of data availability into consideration, this study measures the type of capitalism by the *degree of employment security*. To do so, data from the GCR 08/09 (WEF, 2008) is used. In the GCR, employment security is measured on a scale from 1 to 7. A value of 1 means that the hiring and firing of workers is highly impeded by regulations, resulting in high employment security. We associated this with coordinated market economies. On the other side, a value of 7 stands for a hiring and firing of workers policy, which is determined by employers, resulting in little or no employment protection (WEF, 2008). The latter represents liberal market economies. We refer to the type of capitalism in our analysis as *market liberalization*. Our operationalization of the type of capitalism seems to be consistent with other studies (e.g. Schneider & Paunescu, 2012; Schneider et al., 2010).

### **Control variables**

#### *Economic Prosperity*

Most theories of social entrepreneurship suggest a connection between the national wealth and social entrepreneurial activity. The latter is considered as being grounded in institutional failure that is associated with little economic development (Lepoutre et al., 2013). Accordingly, a negative relation between national wealth and social entrepreneurial activity is assumed, meaning that in economically less developed countries the level of social entrepreneurial activity is relatively high. However, it is also argued that the economic wealth of a society promotes social entrepreneurial activities because in these societies the basic human needs of the people are satisfied, which enables them to turn towards others in need (Bosma & Levie, 2009). Noting that the perceived economic wealth does not necessarily correspond with factual economic wealth (Inglehart, 1981), this might, to a certain degree, explain why findings on the impact of economic wealth on social entrepreneurial activities is still fuzzy (Estrin et al., 2013a; Hartog & Hoogendoorn, 2011; Lepoutre et al., 2013). In this study, economic wealth is included as a control variable. Following

others (Baughn et al., 2006; Estrin et al., 2013a; Stephan & Uhlaner, 2010; Stephan et al., 2015), economic wealth is measured as *Gross Domestic Product (GDP) per capita* in purchasing power parities. Our data source is the World Economic Outlook Database (WEOD, 2008) provided by the International Monetary Fund.

#### *Legal Certainty and Cost of Business Formation*

Entrepreneurship activities benefit from conducive conditions such as low costs (Demirguc-Kunt et al., 2006), secure property rights or low levels of corruption (Estrin et al., 2013b). It is likely that this also applies for social entrepreneurial activities (Estrin et al., 2013b). Therefore, this study includes two variables to control for conditions that impact the formation of business: *Legal certainty* and *cost of business formation*. The former is measured by using the Rule of Law-Index. This index is one of the Worldwide Governance Indicators published by the World Bank. It measures the extent to which agents have confidence in and abide by the rules of a given society (WGID, 2009). The index ranges from (-)2.5 to (+)2.5 whereas higher values indicate a higher level of confidence in the rule of law. The cost of business formation is measured by using a single index provided by the GCR 08/09. This index is based on the average cost of business formation as percentage of GDP/capita (World Bank, 2007).

#### *Level of Education*

Research suggests that there is a positive relation between the level of education and social entrepreneurial activity (Estrin et al., 2013a; Ferri & Urbano, 2010; Griffiths et al., 2013; Hechavarría, 2016; Stephan et al., 2015). In this study, the level of education is included as control variable and it is incorporated by using a single item provided by the GCR 08/09. It is assumed that the rate of enrollment reflects the level of education of a given nation. Thus, the level of education is measured as the rate of gross tertiary education enrollment on a scale of 0 to 100 percent (WEF, 2008).



## VI. Results

### Correlations and Multicollinearity

Table 4 presents the zero-order correlations, means, standard deviations and the value range for all variables. The correlation matrix displays uncentered means, although the variables were later centered for testing the interaction effects in Models 5 and 6 (Dawson, 2014). As shown in the table, both gender equality ( $r=0.419^{**}$ ;  $p=0.008$ ) and post-materialism ( $r=0.395^*$ ;  $p=0.013$ ) are positively correlated with social entrepreneurial activity (SEA) while there is no significant correlation between the type of capitalism (market liberalization) and SEA.

**Table 1: Descriptive Statistics and Correlations**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) SEA	-							
(2) Gender equality	0.419**	-						
(3) Post-materialism	0.395*	0.182	-					
(4) Market liberalization	0.119	0.148	-0.333*	-				
(5) GDP/capita	0.115	0.381*	0.519**	-0.051	-			
(6) Rule of law	0.070	0.302	0.401*	0.000	0.845**	-		
(7) Costs of business formation	-0.123	-0.331*	-0.149	0.086	-0.536**	-0.414**	-	
(8) Level of education	0.242	0.428**	0.266	-0.130	0.707**	0.579**	-0.461**	-
Mean	1.81	75	12.92	3.6	21,588	0.47	16.5	50.6
S.D.	1.15	19	6.79	0.9	13,962	0.98	19.1	24.5
Min	0.17	20	1.60	2.1	1,148	-1.60	0.7	3.5
Max	4.13	100	25.80	5.5	55,199	1.96	92	94.9

\* $p<0,05$ ; \*\* $p<0,01$  (two-tailed, Pearson),  $N = 39$

To make sure that we see the isolated impact of our three variables, we tested for multicollinearity. We calculated the Variance Inflation Factor (VIF) and the corresponding tolerance-value (Cohen et al., 2003). The tolerance-value of a variable describes the proportion of variance of that variable, which cannot be attributed to the rest of the explanatory variables in a model, whereas the VIF is calculated as the reciprocal value of the tolerance-value. Using  $VIF \leq 10$  and tolerance-value  $\leq 0.1$  as benchmarks (Cohen et al., 2003; Marquardt, 1970), there seems to be no

indication of multicollinearity in our model. The average VIF across our independent variables is 2.625 and no single VIF is higher than 10.

### **Testing our Hypotheses**

We used hierarchical multiple regressions to test our hypotheses. As mentioned above, we controlled for economic prosperity (GDP/capita), legal certainty (rule of law), costs of business formation and the level of education (Model 1; adjusted  $R^2=0.042$ ;  $p=0.652$ ). By sequentially adding the explanatory variables into our regression, we calculated a total of four models (

Table 5). Model 1 and Model 2 are not significant. The explanatory power increases with each model and Model 4 explains about 35 percent of the variation found in social entrepreneurial activity on the national level (Model 4; adjusted  $R^2=0.348^{**}$ ;  $p=0.004$ ). Except for economic prosperity in the fourth model (Model 4;  $B=-0.00005864^*$ ;  $Beta=-0.711^*$ ;  $p=0.04$ ), none of our control variables show significant impact on social entrepreneurial activity in any model. Overall, based on Model 4, our findings support hypothesis H2 (Model 4;  $B=0.117^{**}$ ;  $Beta=0.687^{**}$ ;  $p=0.000$ ) and H3 (Model 4;  $B=0.413^*$ ;  $Beta=0.334^*$ ;  $p=0.034$ ). Here, post-materialism and market liberalization (type of capitalism) significantly and positively correlate with the rate of (SEA as measured by the Global Entrepreneurship Monitor 2009. However, based on Model 4, we must reject H1 (Model 4;  $B=0.018$ ;  $Beta=0.290$ ;  $p=0.068$ ). We cannot find a significant correlation between gender equality and social entrepreneurial activity so far.

**Table 2: Regression Models**

	Model 1				Model 2				Model 3				Model 4			
	B	SE	Beta	p-value	B	SE	Beta	p-value	B	SE	Beta	p-value	B	SE	Beta	p-value
(Intercept)	1.279	0.686		0.071	-0.271	0.934		0.774	-0.706	0.843		0.409	-2.102*	1.015		0.047
<i>Control variables:</i>																
GDP/capita	-6.120E-6	0.000	-0.074	0.844	-1.027E-5	0.000	-0.124	0.726	-4.801E-5	0.000	-0.582	0.102	-5.864E-5*	0.000	-0.711*	0.040
Rule of law	-0.078	0.364	-0.067	0.832	-0.063	0.343	-0.054	0.856	0.039	0.307	0.033	0.900	0.016	0.290	0.014	0.957
Costs of business formation	-0.003	0.012	-0.046	0.817	0.001	0.011	0.011	0.953	-0.005	0.010	-0.080	0.641	-0.008	0.010	-0.140	0.398
Level of education	0.015	0.011	0.311	0.197	0.009	0.011	0.193	0.404	0.014	0.010	0.294	0.164	0.019	0.009	0.408	0.051
<i>Explanatory variables:</i>																
Gender equality			-		0.025*	0.011	0.404*	0.028	0.024*	0.010	0.383*	0.020	0.018	0.009	0.290	0.068
Post-materialism			-				-		0.089**	0.029	0.523**	0.004	0.117**	0.030	0.687**	0.000
Market liberalization			-				-				-		0.413*	0.186	0.334*	0.034
$\Delta R^2$			0.068				0.196				0.384				0.468	
Adjusted R <sup>2</sup>			0.068				0.129				0.187				0.084	
$\Delta$ Adjusted R <sup>2</sup>			-0.042				0.075				0.268				0.348	
$\Delta$ Adjusted R <sup>2</sup>			-0.042				0.117				0.193				0.08	
p-value of model			0.652				0.184				0.012*				0.004**	
sample size (N)			39				39				39				39	

\*p&lt;0,05; \*\*p&lt;0,01

We made an interesting but not yet fully theoretically explored observation, however. By including the type of capitalism (market liberalization) in Model 4, the impact of gender equality on social entrepreneurial activity is weakened, while at the same time the impact of post-materialism on SEA increases (see Table 2). We interpret the latter observation as an indication for an interaction effect (Dawson, 2014) and therefore calculated an additional Model 5, which includes an interaction term between post-materialism and market liberalization (post-materialism X market liberalization). To do so, we used the centered means of all explanatory variables (Dawson, 2014). Model 5 shows that there is a significant positive interaction effect between market liberalization and post-materialism (Model 5, B=0.074\*\*; Beta=0.390\*\*, p=0.007). Simultaneously, the explanatory power of the model further increases up to an adjusted R<sup>2</sup> of 0.475. Furthermore, we cannot find a significant impact of the type of capitalism on SEA anymore. This finding leads us to the preliminary conclusion that demand factors (such as the type of capitalism) impact social entrepreneurial activity rather indirectly via supply factors (such as post-materialism and gender equality) instead of having a direct effect. To further investigate this finding, we calculated a sixth model, in which a second interaction term (gender equality X market liberalization) was included. The results (Table 3) neither confirm an interaction effect between market liberalization and gender equality, nor do we see significant changes in the other explanatory variables. Summing up our results, we find that our model explains almost 46 percent of the variation found in

SEA (Model 6; adjusted  $R^2=0.458^{**}$ ;  $p=0.001$ ). Both gender equality (Model 6;  $B=0.022^*$ ;  $Beta=0.357^*$ ;  $p=0.035$ ) and post-materialism (Model 6;  $B=0.110^{**}$ ;  $Beta=0.646^{**}$ ;  $p=0.000$ ) have a positive and significant effect on SEA while we cannot confirm a significant impact of the type of capitalism on SEA (Model 6;  $B=0.228$ ;  $Beta=0.185$ ;  $p=0.227$ ). However, we do find a positive and significant interaction effect of post-materialism and market liberalization (Model 6;  $B=0.071^*$ ;  $Beta=0.373^*$ ;  $p=0.018$ ). Based on Model 6, we must therefore reject H3, but we find evidence for H1 and H2.

**Table 3: Interaction of Capitalism with Post-Materialism and Gender Equality**

	Model 4				Model 5				Model 6			
	B	SE	Beta	p-value	B	SE	Beta	p-value	B	SE	Beta	p-value
(Intercept)	1.806**	0.149		0.000	1.958**	0.144		0.000	1.942**	0.156		0.000
<i>Control variables:</i>												
GDP/capita	-5.864E-5*	0.000	-0.711*	0.040	-5.451E-5*	0.000	-0.660*	0.034	-5.388E-5*	0.000	-0.653*	0.040
Rule of law	0.016	0.290	0.014	0.957	-0.145	0.266	-0.124	0.589	-0.136	0.272	-0.116	0.621
Costs of business formation	-0.008	0.010	-0.140	0.398	-0.003	0.009	-0.052	0.730	-0.004	0.009	-0.059	0.706
Level of education	0.019	0.009	0.408	0.051	0.022*	0.009	0.473*	0.014	0.022*	0.009	0.467*	0.018
<i>Explanatory variables:</i>												
Gender equality	0.018	0.009	0.290	0.068	0.023*	0.009	0.379*	0.012	0.022*	0.010	0.357*	0.035
Post-materialism	0.117**	0.030	0.687**	0.000	0.110**	0.027	0.646**	0.000	0.110**	0.027	0.646**	0.000
Market liberalization	0.413*	0.186	0.334*	0.034	0.240	0.178	0.194	0.186	0.228	0.185	0.185	0.227
Post-materialism X market liberalization			-		0.074**	0.025	0.390**	0.007	0.071*	0.028	0.373*	0.018
Gender equality X market liberalization									0.004	0.013	0.046	0.772
$R^2$			0.468				0.585				0.586	
$\Delta R^2$			0.084				0.117				0.001	
Adjusted $R^2$			0.348				0.475				0.458	
$\Delta$ Adjusted $R^2$			0.08				0.127				-0.017	
p-value of model			0.004**				0.000**				0.001**	
sample size (N)			39				39				39	

\* $p<0,05$ ; \*\* $p<0,01$

## VII. Discussion

First, our study provides preliminary support for the findings of other studies concerning the influence of norms and values on social entrepreneurial activity. As shown, post-materialism unfolds the strongest impact on social entrepreneurial activity. Initial results indicate that both post-materialism and, to a lesser degree, the market liberalization directly affect social entrepreneurial activity whereas our data does not show a significant impact of gender equality on SEA (

Table 5; Model 4). However, further results show that *market liberalization* positively moderates the influence of *post-materialism* on *social entrepreneurial activity* (Table 6; Model 5 and 6). Thus, there is some evidence that the influence of *post-*

*materialism on social entrepreneurial activity* is greater in countries that are predominantly coordinated by market mechanisms (i.e., liberal market economies) compared to coordinated market economies. After including the interaction term of post-materialism and market liberalization, we still find a significant direct impact of post-materialism on SEA (Table 6; Model 5). This lasts when additionally including the interaction term of gender equality and the market liberalization (Table 6; Model 6). Thus, it seems that the impact of post-materialism on SEA is very robust. However, after including the interaction terms, the direct impact of market liberalization on SEA disappears (Table 6; Models 5 and 6). Our interpretation of these findings is that market liberalization does not impact SEA directly but operates via post-materialism. The positive interaction effect of post-materialism and market liberalization on SEA (considering that post-materialism still unfolds a direct positive impact on SEA) therefore suggests that liberal market economies strengthen the positive impact of post-materialism on SEA. Therefore, we expect to find a high-level of SEA in post-materialistic societies with a high-level of market liberalization. The case of the United States, widely regarded as a post-materialistic country *and* “a typical LME” (Hall & Gingerich 2009: 453), might intuitively illustrate this finding. Here, with 3.95 percent of all new social enterprises, we see one of the highest national levels of SEA. Please note that according to our data (Table 4), post-materialism and market liberalization (type of capitalism) are negatively correlated at a medium level (Cohen, 1988). Surprisingly, we cannot see a moderating effect of market liberalization and gender equality on SEA (Table 6; Model 6). Here, the interaction term is not significant. Apparently, the type of capitalism does not affect the impact of gender equality on SEA. Moreover, our results suggest a positive direct impact of gender equality on social entrepreneurial activity when including the interaction terms (Table 6; Models 5 and 6).

Overall, our findings indicate that demand factors might play an important role in moderating the impact of supply factors (Stephan et al., 2015). According to our data, this applies for post-materialism but not for gender equality. Post-materialism and gender equality are both supply factors, but they are different in respect to their

institutional pillar (Stephan et al., 2015): While post-materialism represents a cognitive institution, gender equality operates in a normative way. This brings us to the following interpretation: Objectively given opportunities (demand) for social entrepreneurial activities need to be *cognitively recognized* as opportunities for social entrepreneurial activity. Once cognitively recognized, this demand factor (type of capitalism) strengthens the effect of the supply factor post-materialism. This might also explain, to a certain degree, why we cannot confirm the same effect when looking at the moderating role of the type of capitalism on the relationship between gender equality and social entrepreneurial activity. Cognitive factors may substitute for the effect of normative factors. This interpretation relates to Stephan et al.'s (2015) findings. Although they do find support for the hypothesis (H5) that the impact of nation-level government activism (a demand factor when low) on social entrepreneurship activity is positively moderated by a socially supportive culture (a support factor), this effect disappears when the interaction term of government activism with post-materialism is additionally integrated into the model (Stephan et al., 2015, Model 5). Considering socially supportive culture a normative pillar of the institutional framework, as these (Stephan et al., 2015) authors do, one may argue that the moderating effect of normative institutions (e.g. gender equality, socially supportive culture) is substituted by cognitive institutions (e.g. post-materialism).

To conclude, according to our findings, demand factors do not work independently from supply factors while the opposite seems to be valid. In other words, the type of capitalism unfolds a moderating effect but no direct effect on SEA. Our findings are, overall, in line with the results provided by Stephan et al. (2015, 323) who conclude "that joint institutional *configurations* of formal and informal institutions offer more explanatory power than examinations of their individual effects." While we cannot find a direct impact of demand factors (as opposed to Estrin et al., 2013a), our results indicate that demand factors might rather come into play through their indirect effects. Stephan et al (2015) for example show the relative importance of supply factors (institutional support perspective). Furthermore, they find a negative interaction effect between post-materialism and government activism (Stephan et al.,

2015). In their study, government activism is measured based on fiscal freedom (reflecting wealth redistribution) and government size (reflecting total government expenditure as percentage of GDP). Higher government activism therefore implies a lower demand for social entrepreneurship (or more support). Their findings show that individuals are less likely to engage in SEA where government activism is high (low demand and strong support) *and* where post-materialism is high. This, as we think, partly supports our finding that individuals are most likely to engage in SEA where post-materialism is high, and markets are liberal (high demand).

### **VIII. Conclusion**

We started to enlarge the scope of research on social entrepreneurship by incorporating capitalism (Kibler et al., 2018; Lepoutre et al., 2013; Mair, 2010; Stephan et al., 2015) into the investigation of the determinants of social entrepreneurial activity. We made some interesting, yet not fully explored and not fully understood observations. Therefore, our interpretation needs further empirical foundation. Of course, our study has its limitations. Firstly, our sample size is relatively small. Therefore, we are not able to incorporate more control variables into our regression, such as religion (e.g. Carswell & Rolland, 2004; Henley, 2017), for example. Secondly, the one-dimensional measurement of the type of capitalism (market liberalization) needs to be enhanced with additional variables. Composite indicators, as suggested by Hall and Gingerich (2009) and others, might help to develop a more clear-cut picture on the impact of capitalism on social entrepreneurship. Taking these limitations into account, we suggest further research that focuses on capitalism to deepen our understanding of the drivers of social entrepreneurial activity. While our findings do support existing findings on the importance of supply factors for explaining social entrepreneurship across countries, this study also sheds light on the importance of demand factors for understanding the interrelation of different factors explaining social entrepreneurial activity (Stephan et al., 2015). The investigation of the interlaced and nested relationship among different factors impacting social entrepreneurial activity may help to further clarify and consolidate research (see also Klein, 2008), which ultimately calls for the use of multi-level analysis (e.g. Goldstein 1987,

2011) in research on social entrepreneurial activity (e.g. Gupta et al., 2019; Hechavarría et al., 2017; Morales & Holtschlag, 2013; Stephan et al., 2015). Overall, we conclude that it is insufficient to have objectively given demands for social entrepreneurial activities. Instead, demand must be acknowledged, recognized, and valued as an opportunity for social entrepreneurship. The ability to perceive, evaluate and exploit demand – that is to make use of opportunities – depends, as argued in our discussion, on the given set of cultural and material resources within one country.

## **IX. Literature**

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## X. APPENDIX

**Table 4: Descriptive Statistics and Correlations**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) SEA	-							
(2) Gender equality	0.419**	-						
(3) Post-materialism	0.395*	0.182	-					
(4) Market liberalization	0.119	0.148	-0.333*	-				
(5) GDP/capita	0.115	0.381*	0.519**	-0.051	-			
(6) Rule of law	0.070	0.302	0.401*	0.000	0.845**	-		
(7) Costs of business formation	-0.123	-0.331*	-0.149	0.086	-0.536**	-0.414**	-	
(8) Level of education	0.242	0.428**	0.266	-0.130	0.707**	0.579**	-0.461**	-
Mean	1.81	75	12.92	3.6	21,588	0.47	16.5	50.6
S.D.	1.15	19	6.79	0.9	13,962	0.98	19.1	24.5
Min	0.17	20	1.60	2.1	1,148	-1.60	0.7	3.5
Max	4.13	100	25.80	5.5	55,199	1.96	92	94.9

\* $p < 0,05$ ; \*\* $p < 0,01$  (two-tailed, Pearson),  $N = 39$

**Table 5: Regression Models**

	Model 1				Model 2				Model 3				Model 4			
	B	SE	Beta	p-value	B	SE	Beta	p-value	B	SE	Beta	p-value	B	SE	Beta	p-value
(Intercept)	1.279	0.686		0.071	-0.271	0.934		0.774	-0.706	0.843		0.409	-2,102*	1.015		0.047
<i>Control variables:</i>																
GDP/capita	-6.120E-6	0.000	-0.074	0.844	-1.027E-5	0.000	-0.124	0.726	-4.801E-5	0.000	-0.582	0.102	-5.864E-5*	0.000	-0,711*	0.040
Rule of law	-0.078	0.364	-0.067	0.832	-0.063	0.343	-0.054	0.856	0.039	0.307	0.033	0.900	0.016	0.290	0.014	0.957
Costs of business formation	-0.003	0.012	-0.046	0.817	0.001	0.011	0.011	0.953	-0.005	0.010	-0.080	0.641	-0.008	0.010	-0.140	0.398
Level of education	0.015	0.011	0.311	0.197	0.009	0.011	0.193	0.404	0.014	0.010	0.294	0.164	0.019	0.009	0.408	0.051
<i>Explanatory variables:</i>																
Gender equality					0.025*	0.011	0.404*	0.028	0.024*	0.010	0.383*	0.020	0.018	0.009	0.290	0.068
Post-materialism									0.089**	0.029	0.523**	0.004	0.117***	0.030	0.687**	0.000
Market liberalization													0.413*	0.186	0.334*	0.034
$\Delta R^2$		0.068				0.196				0.384				0.468		
Adjusted $R^2$		0.068				0.129				0.187				0.084		
$\Delta$ Adjusted $R^2$		-0.042				0.075				0.268				0.348		
$\Delta$ Adjusted $R^2$		-0.042				0.117				0.193				0.08		
p-value of model		0.652				0.184				0.012*				0.004**		
sample size (N)		39				39				39				39		

\* $p < 0,05$ ; \*\* $p < 0,01$

**Table 6: Interaction of Capitalism with Post-Materialism and Gender Equality**

	Model 4				Model 5				Model 6			
	B	SE	Beta	p-value	B	SE	Beta	p-value	B	SE	Beta	p-value
(Intercept)	1.806**	0.149		0.000	1.958**	0.144		0.000	1.942**	0.156		0.000
<i>Control variables:</i>												
GDP/capita	-5.864E-5*	0.000	-0.711*	0.040	-5.451E-5*	0.000	-0.660*	0.034	-5.388E-5*	0.000	-0.653*	0.040
Rule of law	0.016	0.290	0.014	0.957	-0.145	0.266	-0.124	0.589	-0.136	0.272	-0.116	0.621
Costs of business formation	-0.008	0.010	-0.140	0.398	-0.003	0.009	-0.052	0.730	-0.004	0.009	-0.059	0.706
Level of education	0.019	0.009	0.408	0.051	0.022*	0.009	0.473*	0.014	0.022*	0.009	0.467*	0.018
<i>Explanatory variables:</i>												
Gender equality	0.018	0.009	0.290	0.068	0.023*	0.009	0.379*	0.012	0.022*	0.010	0.357*	0.035
Post-materialism	0.117**	0.030	0.687**	0.000	0.110**	0.027	0.646**	0.000	0.110**	0.027	0.646**	0.000
Market liberalization	0.413*	0.186	0.334*	0.034	0.240	0.178	0.194	0.186	0.228	0.185	0.185	0.227
Post-materialism X market liberalization			-		0.074**	0.025	0.390**	0.007	0.071*	0.028	0.373*	0.018
Gender equality X market liberalization									0.004	0.013	0.046	0.772
R <sup>2</sup>			0.468				0.585				0.586	
Δ R <sup>2</sup>			0.084				0.117				0.001	
Adjusted R <sup>2</sup>			0.348				0.475				0.458	
Δ Adjusted R <sup>2</sup>			0.08				0.127				-0.017	
p-value of model			0.004**				0.000**				0.001**	
sample size (N)			39				39				39	

\*p&lt;0,05; \*\*p&lt;0,01