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SOCIAL CAPITAL, SOCIAL INNOVATION
AND SOCIAL IMPACT

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ABSTRACT

Social capital – as reflected in inter-organizational network relations – is a widely researched phenomenon for large, mostly publicly listed firms. With respect to social enterprises, however, little is known about the importance of social capital. We aim at closing this gap by empirically analyzing the influence of various dimensions of social capital on knowledge transfer, social innovation, and, subsequently, social impact. We theorize that social capital is positively related to social innovation with knowledge transfer also acting as partial mediator. Furthermore, we suggest that social innovations are positively related to the social impact of these firms. Based on a large sample of social enterprises, the results of fitting these to a structural equation model provide broad support for these considerations.

INTRODUCTION

Social enterprises primarily strive to increase social rather than financial value. As creating a lasting social impact is the central aim of these firms, social sustainability is at the core of their business. To achieve this social impact, they rely on innovative practices. Although there is considerable interest in the two closely connected phenomena of social entrepreneurship and social innovation (Dacin, Dacin, & Matear, 2010; Zahra et al., 2009), the literature lacks coherent theoretical frameworks (Weerawardena & Mort, 2006). Additionally, there is a predominance of qualitative, single and multi-case analyses based on explorative, anecdotal evidence (Mair & Martí, 2006). Whilst acknowledging the formative contributions of this research, we are in need of quantitative analyses that help us to validate extant propositions (Lepoutre et al., 2011). In this study, we address this need for quantitative research and integrate three important streams of research, namely: social entrepreneurship, social innovation, and social capital.

In line with the extant literature (e.g., Mair & Martí, 2006; Nicholls & Cho, 2006), we define social entrepreneurship as a process by which resources are used and combined innovatively and effectively to address areas of social market failure. Social innovation is therefore considered as an integrative part of social entrepreneurship. Accordingly, social innovation can be understood as a process during which large-scale lasting, and systemic change is created through the introduction of new ideas, methodologies, and changes in attitude (Kramer, 2005). Particular characteristics of social innovations in comparison to commercial innovations lie, amongst others, in the aforementioned primary goal of achieving a sustainable positive impact, the resources required, and the ease of accessing these resources (Dacin et al, 2010, Zahra et al., 2009). Furthermore, their initiators’ have been found to be more willing to share critical knowledge regarding innovations than their business-oriented counterparts (Cohen & Mayer, 2011).
Although social entrepreneurs are motivated by different goals than business entrepreneurs, both groups face similar challenges and problems (Austin, Stevenson, & Wei-Skillern, 2006). The strategic use of external resources through inter-firm networks is regarded as an effective way of addressing these challenges, as network ties are considered a means of creating social capital (Granovetter, 1985; Burt, 1992). Social capital is, in turn, said to affect tied-to partners’ opportunities, motivations, and their ability to access resources (Adler & Kwon, 2002), which is essential for creating knowledge and innovation (Inkpen & Tsang, 2005; Rost, 2011).

Researchers have only begun to investigate the impact of social entrepreneurs’ network-based social capital on innovation and subsequent social impact. Although a large body of literature identifies social capital as a multi-dimensional construct (Lechner et al., 2006; Koka & Prescott, 2002; Moran, 2005; Nahapiet & Ghoshal, 1998), research on social enterprises has yet to investigate the effects of the structural, relational, and cognitive dimensions of social capital in a unifying model. In addition, there is little understanding of the mediating processes that translate social capital into social innovativeness and social impact (Crossan & Apaydin, 2010). Against this background, our study analyzes the following research questions:

• How do different dimensions of social capital impact social innovation?
• What is the role of knowledge transferred through network ties in the relation between social capital and social innovation?
• What is the relationship between social innovation and social impact?

**Literature Review**

**Social Capital.** Social networks are seen as a set of relationships through which actors are connected (Gabbay & Leenders, 2001). These sets of social relationships, which are at the core of social capital, facilitate the coordination and cooperation of partners within a network. Further, they allow accessing, transferring, and creating relevant resources such as financial or human capital, knowledge, equipment, space, or advice (Inkpen & Tsang, 2005; Yli-Renko, Autiio, & Sapienza, 2001; Leana & Van Buren, 1999; Burt, 2005).

Social capital – as reflected in the network relationships of social entrepreneurs – is a multi-faceted construct consisting of a structural, relational, and cognitive dimension. The structural dimension comprises the location of an actor’s contacts within the social structure of interaction. In other words, it deals with the presence or absence of ties and the kind of networks involved, with an emphasis on which contacts as well as which types of contacts are involved and how they are reached (Burt, 1992; Wasserman & Faust, 1994). The relational dimension focuses on the quality of relations, especially those that influence behavior. It is through these ongoing relationships that people abide by agreed rules and collaborate and act in the common interest. Drawing on Granovetter’s (1985) seminal work on embeddedness, we follow Nahapiet and Ghoshal (1998) who suggest the cognitive dimension as a third and separate dimension of social capital. The cognitive dimension “refers to those resources providing shared representations, interpretations, and systems of meaning among parties” (Nahapiet & Ghoshal, 1998: 244).

Whilst most research focuses on the structural dimension (e.g., Powell et al., 1996; Tsai, 2002) or the relational dimension (e.g., Muthusamy & White, 2005) of social capital, very few studies address the cognitive dimension (Liao & Welsch, 2005; Tsai & Ghoshal, 1998) and rarely are two
Social Innovation. Phills, Deiglmeier, and Miller’s (2008) study is one of the few explicitly addressing social innovation. The authors define social innovation as an especially effective, efficient or sustainable solution to a social problem for which the value created accrues rather to society than to an individual. Regarding the social context, Christensen et al. (2006: 96) present the concept of catalytic innovation: “Like disruptive innovations, which challenge industry incumbents by offering simpler, good-enough alternatives to an underserved group of customers, catalytic innovations can surpass the status quo by providing good-enough solutions to inadequately addressed social problems”. However, while traditional innovations, due to their disruptive character, often cause social change unintentionally, achieving social change is the primary objective of catalytic innovations. Against this background, our broad understanding of social innovation in this paper is as follows: social innovation is a process during which a novel solution – be it more effective, efficient, or sustainable – to a social problem is developed which leads to systemic change and for which the value created accrues primarily to society as a whole rather than to individuals.

Social Capital, Knowledge Transfer and Social Innovation. The literature addressing the influence of social capital on innovation is well established, including works by Burt (1987), Ibarra (1993), Hargadon and Sutton (1997), and McEvily and Zaheer (1999). Based on a longitudinal study, Ahuja (2000) shows that direct and indirect network ties have a positive impact on innovation. Rodan and Galunic (2004) and Capaldo (2007) find that various aspects of network structure are important for innovative capability and performance. The findings of Maurer et al. (2011) and Rost (2011) point to a mediating role of knowledge transfer, while Weber and Weber (2011) demonstrate, in a qualitative study, the impact of social capital on Corporate Venture Capital’s knowledge transfer and innovation performance.

Even more studies are found at the intersection of social network theory and knowledge transfer/creation (Inkpen & Tsang, 2005; McFayden & Canella, 2004; Tsai 2001) as well as social networks and creativity (Perry-Smith & Shalley, 2003; Uzzi & Spiro, 2005); both constructs being understood as antecedents of innovativeness. In this respect, previous studies have found knowledge to be an important driver of innovation (Schulze & Hoegl, 2008; Miller, Fern, & Cardinal 2007; Easterby-Smith, Lyles, & Tang 2008). Knowledge transfer and knowledge creation have, in turn, been shown to be core benefits of social capital (Adler & Kwon, 2002; Burt, 1997; Coleman, 1988). Although the majority of studies in this field deal with the structural dimension of social capital, studies addressing the relational dimension are rare and almost no research include all three dimensions of social capital. Moreover, to the best of our knowledge, this is the first study to address social capital and social innovation in the context of social entrepreneurship.

Hypotheses

Structural Dimension, Knowledge, and Social Innovation

In line with prior literature, we treat the structural dimension of social capital as comprised of the quantity of ties and network diversity. With respect to the impact of the quantity of ties on knowledge transfer we follow McFayden and Canella (2004) and expect a complex non-linear (inverse u-shaped) relationship. Network diversity which is regarded as even more important has
Further been shown to be positively associated with knowledge creation (e.g., Burt, 1992; Lechner et al., 2006). Regarding the impact of the structural dimension of social capital on social innovation, both the quantity of ties and network diversity can be expected to have a positive influence (Tsai & Ghoshal, 1998; Ahuja, 2000).

Hypothesis 1a: There is an inverse u-shaped relationship between the structural dimension of social capital and knowledge transfer.

Hypothesis 1b: The structural dimension of social capital is positively related to social innovation.

Relational Dimension, Knowledge and Social Innovation

The relational dimension focuses on the strength of ties, i.e., their frequency, and intensity, as well as the trust and trustworthiness within a relationship (Granovetter, 1973). Social enterprises operating in uncertain and innovative fields are, by their very nature, characterized by a lack of experience and, at the same time, a constant and continuously changing need for new knowledge (Weber & Kratzer, 2012) to achieve innovative solutions to given social problems. The acquisition of knowledge can be demanding and affords time and effort from both exchange partners, especially when such knowledge is privately held, sensitive, complex and thus difficult to research, transfer and absorb (Hansen, 1999). Consequently, actors are more likely to engage in the process of knowledge transfer when they have established rich communication channels resulting from frequent interactions (Dyer & Singh, 1998) when they perceive a minimum of risk. Referring to Coleman (1988; 1990), the latter can be achieved in an intense and emotionally close relationship that will not only induce a high degree of reciprocity but also the emergence of effective norms that promote trustworthiness among tied-to partners. In a relationship where emotional closeness and trust are in place, exchange partners are more likely to help and support each other even in difficult situations. Consequently, the involved parties are expected to communicate not only more frequently but also more frankly and honestly. This increases the willingness to invest time and effort in a collaboration (Hansen, Podolny, & Pfeffer, 2001) and helps to translate combined competencies into innovations.

Hypothesis 2a: The relational dimension of social capital is positively related to knowledge transfer.

Hypothesis 2b: The relational dimension of social capital is positively related to social innovation.

Cognitive Dimension, Knowledge and Social Innovation

In our study, the cognitive dimension of social capital is comprised of shared goals, values and cognitions between the partners (Tsai & Ghoshal 1998). Social enterprises function as change agents that challenge widely accepted norms, values, and codes of conduct. By challenging the institutional context, these firms experience even more constraints to acquire resources from external partners than their peers in the commercial sector. Consequently, to successfully transfer knowledge and translate existing resources into innovations, it seems especially important for social enterprises to work with partners that share the same cognitive frame.

Hypothesis 3a: The cognitive dimension of social capital is positively related to knowledge transfer.
Hypothesis 3b: The cognitive dimension of social capital is positively related to social innovation.

The Role of Knowledge

Consistent with experiences from the commercial sector, we assume that knowledge transfer is crucial for the development of social innovations (Schulze & Högl, 2008). In addition, we follow the argumentation of Maurer et al. (2011) and Weber and Weber (2011) who show that, for the commercial sector, knowledge transfer mediates the relationship between social capital and social innovation.

Hypothesis 4: Knowledge transfer is positively related to the development of social innovation.

Hypothesis 5: Knowledge mediates the relationship between social capital and social innovation.

Social Innovation and Social Impact

Although the impact of innovation on outcomes has been widely analyzed for the commercial sector (for a review see Crossan & Apaydin, 2010), no such study exists for social enterprises. As it is at the very core of social enterprises to find solutions for pressing societal problems, consistent with findings for commercial for-profit organizations, we expect a positive relationship between social innovations and social impact. This assumption is further fostered by the decision criteria of large funding organizations in this sector like the Schwab Foundation, which aim at providing money to causes with a high social impact.

Hypothesis 6: Social innovations are positively related with social impact.

A diagram of the proposed model reflecting these hypotheses is exhibited in Figure 1.

DATA AND METHODS

Sample

Data were obtained from a proprietary data set of 362 social enterprises (SEs) from 30 countries in 5 continents who had previously applied to the Schwab foundation's annual Social Entrepreneur of the Year award. These social entrepreneurs are expected to be highly motivated and ambitious to grow as the foundation’s support provides access to the world’s leading commercial, governmental and non-governmental organizations and institutions that are brought together by Klaus Schwab's World Economic Forum in Davos. Being a member of this network means access to additional knowledge and resources as well as an increase in legitimacy and reputation. As such, a social network approach seems more than appropriate for this population. Our model has been specifically validated for self-selected, entrepreneurially orientated social enterprises.

Measures

A pre-tested survey questionnaire was sent to all SEs who applied for the above mentioned award of the Schwab foundation during 2001 and 2012. This questionnaire contained demographical questions about the SE, the nature of its current activities, its social innovativeness, its
social impact as well as its working partnerships in general. In addition, it sought specific details about the SE’s relationship with its three most important collaborative partners as well as the resources acquired through this partnership. Most items were measured on previously validated 5-point Likert type scales, or on 5-point semantic differential scales, and provided the data needed as the manifest variables for the constructs present in the model.

**Social Capital.** The measures for the structural, relational, and cognitive dimensions of social capital were taken from the scales of Muthusamy and White (2005), Moran (2005), and Tsai and Ghoshal (1998), but adapted for a social enterprise context. Depending on the number of most important partners indicated by the social SE, the respective questions were repeated for each partner separately, up to the maximum of the three most important partners. For the structural dimension of social capital, we asked for the numbers of partners each SE had – for each of eight different partner types. For the relational dimension of social capital, we asked for three different types of inter-organizational trust – ability-based, benevolence-based, and integrity-based trust (Mayer et al. 1995). In addition, we asked for an assessment of the closeness and multiplexity of the respective relationship as well as the frequency of interactions. Finally, for the cognitive dimension of social capital we inquired about shared goals and values, shared visions and ambitions as well as similar work experience and professional background (Tsai and Ghoshal 1998).

**Knowledge Transfer:** In line with previous literature (Weber and Weber 2011), we separate knowledge into three different types: know-what, know-how, and know-who. Knowledge transfer was measured by asking the SE (for each type of knowledge) whether a partnership helped to obtain or increase the respective type of knowledge. Depending on the amount of most important partners indicated by the SE, this question was repeated up to three times for each partner separately.

**Social Innovation:** As there are no validated measures for social innovation, we had to create our own measures: We divided social innovation into degree of innovation and increase in innovation. Referring to the commercial innovation literature (Hauschildt and Salomo 2011), the degree of innovation was measured by asking for the estimated newness/originality as well as the potential benefit of the SE’s solution for the customers/beneficiaries and the estimated newness/originality of the respective program for the social enterprise itself. Increase of innovation was measured by requesting information about the development of new as well as the improvement of existing products, services and processes. In addition, we integrated the extent to which the SE’s initiative or project transformed established practices and/or systems.

**Social Impact:** Social impact was measured via the SE’s increased number of beneficiaries reached, increased size of the organization, the increased legitimacy/reputation of the organization as well as its market share.

**Method**

A partial least squares SEM was fitted to the data (Gefen et al., 2011) using the SmartPLS partial least squares structural equation modeling software package (Ringle et al., 2005). To investigate the plausibility of the overall model comprising seven first order latent variables, a factor analysis was conducted on the manifest variables. Using an unrotated principal components decomposition, the seven factor solution explained 79.8% of the total variance, with an eight
factor solution explaining 82.6% of the total variance. Clearly, the seven factor model explains an adequate proportion of the variance present in the variables with little gained from the additional factor. Furthermore, as all the data were obtained from a single source questionnaire, Harman’s one factor test was used to ensure that there were no obvious signs of common method variance present amongst the manifest variables. The unrotated single factor accounted for 38.4% of the total variance, well below the suggested cut-off value of 50%. As such, these findings suggest that a seven factor model would appear to have suitable dimensions for these data and that there are no obvious signs of common method bias being present. A factor analysis of the manifest variables for the second order social innovation construct using the principal component extraction method and with a varimax rotation resulted in the indicators each loading onto their putative construct. As 85.1% of the variation in the data was accounted for by the second order model there is also strong evidence in support of the higher order construct being present in the model.

Following the procedure advocated by Hulland (1999), a two phase approach was employed to analyze the fitted model. From the measurement model, internal consistency reliability for the proposed latent variables was appraised using the composite reliability and Cronbach’s α, with convergent validity being determined by requiring the average variance extracted (AVE) for each latent variable present in the model to be at least 0.5 (Fornell and Larcker, 1981). To establish if the model exhibits discriminant validity, all cross-loadings of the manifest indicator variables were inspected to ensure that they loaded onto their designated latent variable more strongly than on any of the other latent variables. In addition, the square root of the AVE for each first-order latent variable inspected to establish if it was greater than the correlation of the latent variable with any of the remaining latent variables (Fornell and Larcker, 1981).

In the second phase, the structural model was appraised. To validate the second-order latent variable, social innovation, the respective path coefficients from social innovation to the two first order reflective latent variables, Degree of Innovation and Increasing Innovation, are effectively the loadings onto this reflective latent variable. These are required to be significantly greater than zero and at a suitable level to demonstrate making a substantial contribution to the parent latent variable. These should, ideally, be above 0.6 although any measure over 0.5 would indicate that a majority of the variability in the first order latent variable indicators is contributing to the second order latent variable.

**Results**

Summary statistics for the manifest variables of the model are exhibited in Table 1. For the measurement model, internal consistency reliability for the latent variables is further demonstrated by the composite reliability coefficients (CR), and the weaker Cronbach’s a coefficients, all being at a suitable level (Table 2). The average variance extracted (AVE) is also above the 0.5 threshold suggesting good convergent validity (Table 2). For discriminant validity, the loadings of the indicators onto their designated latent variables are all in excess of 0.7, with the exception of KNO1 which has an acceptable loading of 0.674 (Table 1). Each is also greater than the loadings of the variable onto the other latent variables. In addition, the square root of the AVE for each latent variable is greater than the correlation of the variable with any of the remaining latent variables (Table 3). The model therefore demonstrate both convergent and discriminant validity.
For the structural model, to validate hypotheses H1b, H2a/b, H3a/b, H4 and H6, the paths of the SEM are required to be statistically significantly greater than zero, in all cases with H1a being satisfied by the square of the path coefficient between the structural and knowledge transfer latent variables being statistically significantly less than zero. To establish this, estimates of the standard errors for the paths, based on 500 bootstrap replicates, were obtained and a series of t-tests conducted. To validate H5, we analyzed whether knowledge transfer is a full or partial mediator for any of the social capital dimensions of the model. With the exception of Hypothesis 1b, all paths were significant at the $\alpha=0.05$ level (Figure 2). Hence, we found broad support for our hypotheses for the relationships between different dimensions of social capital, knowledge transfer, social innovation, and subsequent social impact. To further validate hypothesis H1a, the resulting latent variable scores for the structural and knowledge transfer latent variables were obtained from fitting the model. A post-hoc test showed a weak inverse u-shaped relation between the structural dimension of social capital and knowledge transfer with an associated small standardized path coefficient ($\beta=0.015$ (3 d.p., $p=0.89$). These results are exhibited in Figure 2. As H2a, H2b and H3a, H3b are significant but H1b is not, at the $a=0.05$ level, knowledge transfer can only be, at most, a partial mediator for the relationship between cognitive and social innovation or that between relational and social innovation is possible. Therefore, to validate the hypothesis that knowledge transfer acts as a mediator for the relationship between social capital and social innovation, H5, we require either of these relationships to hold for there to be a partial mediation present. For t-tests of the path difference using variances obtained from bootstrap replicates, both relationships were shown to be partially mediated ($t_{\text{Relational}}=15.41, p<0.001, t_{\text{Cognition}}=9.21, p<0.001$).

**Discussion**

Little is known about social enterprises’ social capital and its effect on social impact or the roles knowledge transfer and social innovation play in this process. There is, however, a predominance of qualitative, single and multi-case analyses in this field based on explorative and anecdotal evidence (Mair & Marti 2006) that is to be contrasted with a lack of quantitative research (Lepoutre et al. 2011). This study is one of the very few that address this research gap. We introduce a theoretical model that outlines how the three dimensions of social capital first influence knowledge transfer which in turn enables social innovation and subsequently social impact.

The paper contributes to the literature in several ways: First, by investigating how our current knowledge of innovation theory and social capital applies to social enterprises. As such, this is an empirical response to the call from Dacin et al. (2010) “… to investigate how existing theories apply to social-mission related phenomena.” (p. 43). In addition, we add to the literature that seeks to link the two "intrinsically related" constructs (Crossan and Apaydin 2010, p.1177) of entrepreneurship and innovation which Crossan and Apaydin (2010) consider promising for future research. Second, by integrating Nahapiet and Goshal’s (1998) third dimension of social capital, the cognitive dimension, into our model of social capital our study is one of the very few studies that investigate all three dimensions in a single model. This integration is shown to be important due to the different impacts that these three social capital dimensions demonstrably contribute to knowledge transfer and innovation generation in the social sector. We therewith address an oversight (Adler and Kwon, 2002) that is also relevant and informative for the commercial sector. Third, we extend current knowledge of how the various processes drive social innovation by showing the mediating role of knowledge transfer and creation in the relationship between the
dimensions of social capital, on one hand, and social innovation on the other hand (Crossan and Apaydin 2010). Knowledge can, therefore, be considered one key outcome of social capital while at the same time being an if not the most important antecedent for social innovation generation, not least due to its partial mediating role for the cognitive and relational social capital dimensions. This finding is consistent with research in the commercial sector (Burt 1997; Coleman, 1988, Maurer et al. 2011). Fourth, for our sample of ambitious social enterprises our results show that social innovativeness is paramount for them to achieve social impact. With this finding we contribute to the ongoing discussion in the social entrepreneurship literature as to whether financial independence, social innovation, scalability or any other factors drive social enterprises’ social performance. We therefore provide empirical, quantitative, evidence to support the claim that social innovativeness is necessary to enhance performance. Finally, by identifying the underlying process whereby the social capital of social enterprises’ leads to social innovation and, subsequently, to social impact/social value creation, we contribute to an important research gap in the innovation literature for both the social and, possibly, the commercial field. Treating innovation outcome as a mediator between the identified innovation determinants and organizational performance, in our case between knowledge transfer and social impact, we answer Crossan and Apaydin’s (2010) call for “understanding how innovation capability delivers innovation outcomes and ultimately firm performance … [which] would reveal the role of outcomes as a mediator between innovation determinants and firm performance” (p.1177). With this insight we clearly contribute to the rather established field of commercial innovation and show that that results from the social sector might be enriching to discussions held in the commercial sector – a process which is usually observed in the other direction.

By showing that social innovation is an independent and important construct for the social sector we are supporting Baregheh et al. (2009). Having stated this, we developed the operationalization of this construct further and adopted a measure for the degree of social innovation from the commercial innovation literature as, to our best knowledge, no previous single measure has been developed for the social sector. By introducing this new measure for degree of innovation, we hope to contribute to the development of the field.

Throughout this paper, we have pointed to the many similarities between the commercial and the social sector in terms of knowledge transfer and innovation. We also emphasized crucial differences such as the motivation of the respective actors to act. In addition to these differences, Liao and Welsch (2005) investigated the construct itself across different sample groups and showed that the three dimensions of social capital had different interdependencies in different contextual settings: “the patterns of association among its [social capital’s] different dimensions” (p. 345) vary. Hence, one important finding from our study is that the social sector seems to be significantly different from what we know of the commercial sector. In particular, social networks and partnerships seem to work somewhat differently in the social sphere and deserve a special focus. We therewith support the very recent call from Parmigiani and Rivera-Santos (2011) who conducted a meta-review in the field of inter-organizational relationships and concluding that “organizations other than firms, such as nongovernmental organizations, are becoming increasingly important relationship partners, but many of our theories and forms do not clearly recognize the differences in motivations and incentives that affect these relationships” (p. 1131).

Our study also has practical implications. By highlighting the different impacts the three dimensions of social capital have it will help social enterprises in prioritizing their daily networking
activities, focusing on the right dimensions of social capital to increase the probability of generating social innovations. In addition, our results are particularly interesting for supporting organizations such as social impact investors who provide financial and nonfinancial support to social enterprises in order to increase social impact and stimulate social change. For these investors it is important to be able to differentiate the effectiveness and appropriateness of their potential investment options. Enabling them to better understand the type of social enterprise to target would facilitate their decision making process and would allow them to use their money most effectively in terms of social impact generation. The relevance of this decision making issue becomes apparent if, for instance, one compares the different decision making criteria or strategies of famous supporting organizations such as Ashoka or the Schwab Foundation. Whereas Ashoka is particularly interested in supporting those social enterprises that they have identified as highly scalable, the Schwab Foundation has a preferred emphasis for social enterprises that are highly innovative.

**Limitations and Further Research**

A major limitation to the generalizability of our findings is that we have only looked at self-selecting, highly successful social enterprises that are ambitious to increase their access to potential partners to enable them to increase their social provision. Moreover, we have only looked at their relationships for up to the three most important partners they are currently working with.

Our study revealed social innovativeness as a particularly important factor for social impact creation. In a further analysis of our data, it would be interesting to find out, whether specific types of social enterprises particularly drive these results. The importance of social innovativeness seems not to be adequately reflected in the relevant literature, to date. Having said this, this field seems to be a promising stream of further investigation. For instance, it would be helpful to better understand the construct of social innovation itself; its different aspects and dimensions as well as the underlying mechanisms. In addition, it would be insightful to compare the phenomenon of innovation in the social and in the commercial context to gain insights on the applicability of existent innovation management knowledge in the commercial sector to the social sector. Finally, a promising angle would be to compare the different independent variables discussed in the literature responsible for social impact creation, namely scalability, innovativeness and financial independence. By putting all three dimensions into one model would facilitate a greater understanding of their relative importance.

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**References**


FIGURES AND TABLES

Figure 1: Hypotheses for the Model

Figure 2: Fitted Paths for Structural Equation Model
**Table 1. Summary Statistics. SD=Standard deviation.**

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<td></td>
<td>KNO6</td>
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<td>1.3</td>
<td>0.805</td>
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<tr>
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<td>DOI1</td>
<td>4.3</td>
<td>0.7</td>
<td>0.934</td>
</tr>
<tr>
<td></td>
<td>DOI2</td>
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<td>INI2</td>
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<td>1.1</td>
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<td></td>
<td>INI3</td>
<td>4.1</td>
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<td>0.801</td>
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<td>SI3</td>
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<td>SI4</td>
<td>3.9</td>
<td>1.0</td>
<td>0.814</td>
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</tbody>
</table>

**Table 2. Average Variance Extracted (AVE), Composite Reliability (CR), Cronbach’s α (Alpha)**

<table>
<thead>
<tr>
<th>Construct</th>
<th>AVE</th>
<th>CR (Alpha)</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td>0.776</td>
<td>0.933 (0.904)</td>
<td>-</td>
</tr>
<tr>
<td>Degree of Innovation</td>
<td>0.864</td>
<td>0.927 (0.843)</td>
<td>0.383</td>
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<tr>
<td>Increase in Innovation</td>
<td>0.733</td>
<td>0.892 (0.816)</td>
<td>0.847</td>
</tr>
<tr>
<td>Knowledge transfer</td>
<td>0.597</td>
<td>0.899 (0.865)</td>
<td>0.281</td>
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<tr>
<td>Relational</td>
<td>0.705</td>
<td>0.922 (0.894)</td>
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<tr>
<td>Social Impact</td>
<td>0.621</td>
<td>0.867 (0.797)</td>
<td>0.508</td>
</tr>
<tr>
<td>Social Innovation</td>
<td>0.615</td>
<td>0.833 (0.752)</td>
<td>0.305</td>
</tr>
<tr>
<td>Structural</td>
<td>0.728</td>
<td>0.842 (0.637)</td>
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</tr>
</tbody>
</table>

**Table 3. Construct Correlations with the Square Root of the AVE (√AVE) Emboldened Along Lead Diagonal.**

<table>
<thead>
<tr>
<th></th>
<th>Cognitive dimension</th>
<th>Degree of Innovation</th>
<th>Increase in Innovation</th>
<th>Knowledge transfer</th>
<th>Relational dimension</th>
<th>Social Impact</th>
<th>Structural dimension</th>
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<tr>
<td>Cognitive</td>
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<tr>
<td>Degree of innovat.</td>
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<td><strong>0.930</strong></td>
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<tr>
<td>Increase in innovat.</td>
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<td>0.263</td>
<td><strong>0.856</strong></td>
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<tr>
<td>Knowledge transfer</td>
<td>0.471</td>
<td>0.153</td>
<td>0.424</td>
<td><strong>0.773</strong></td>
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<tr>
<td>Relational</td>
<td>0.765</td>
<td>0.305</td>
<td>0.443</td>
<td>0.506</td>
<td><strong>0.840</strong></td>
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<tr>
<td>Social impact</td>
<td>0.410</td>
<td>0.244</td>
<td>0.753</td>
<td>0.369</td>
<td>0.390</td>
<td><strong>0.788</strong></td>
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<tr>
<td>Structural</td>
<td>0.068</td>
<td>0.045</td>
<td>0.060</td>
<td>-0.012</td>
<td>0.051</td>
<td>0.047</td>
<td><strong>0.853</strong></td>
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