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DISENTANGLING GUT FEELING –

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DISENTANGLING GUT FEELING

ASSESSING THE INTEGRITY OF SOCIAL ENTREPRENEURS

Abstract

This paper analyzes how social investors evaluate the integrity of social entrepreneurs. Based on an experiment with 40 professionals and 40 students, we investigate how five attributes of the entrepreneur contribute to the assessment of integrity. These attributes are the entrepreneur's personal experience, professional background, voluntary accountability efforts, reputation and awards/fellowships granted to the entrepreneur. We find that social investors focus largely on voluntary accountability efforts of the entrepreneur and the entrepreneur's reputation when judging integrity. For an overall positive judgment of integrity, it was sufficient if either reputation or voluntary accountability efforts of the entrepreneur were high. By comparing professionals with students, we show that experience leads to a simpler decision model focusing on key attributes.

Keywords: social entrepreneur, social investor, integrity, conjoint analysis, venture philanthropy

INTRODUCTION

Social entrepreneurs are individuals trying to solve a social problem through an entrepreneurial approach (Achleitner et al., 2007; Witkamp et al., 2011). They pursue a double bottom line consisting of social and financial goals (Mair & Marti, 2006; Martin & Osberg, 2007). A key challenge for social entrepreneurs is to find external capital to support their venture, particularly in early stages of company development (Tracey & Philipps, 2007; Miller & Wesley, 2010). Social investors have emerged in recent years as a potential source of capital for social entrepreneurs. Their aim is to create social impact by providing financial as well as non-financial support to social entrepreneurs (Scarlata & Alemany, 2008; John, 2007). In regard to the goal of creating a financial return, many different business models of social investors can be differentiated. Some organizations view their investments as a

donation without any payback obligation. Others have the goal to at least recuperate their investment or to even gain a financial return (Bridges Ventures & Parthenon Group, 2010). Social entrepreneurs and social investors can be described as “two sides of one coin” because of their focus on a double bottom line (Martin, 2004).

Despite the increasing relevance of social entrepreneurs as well as social investors around the globe in recent years (Achleitner et al., 2007; Kerlin, 2006; John, 2006), little research was so far undertaken to understand the relationship between these two parties. In particular, it is not yet well understood how a relationship comes to be (exceptions are Achleitner et al., forthcoming; Scarlata & Alemany, 2009). In this paper, we analyze selection criteria used by social investors in order to evaluate social entrepreneurs applying for funding. We focus on the integrity of the entrepreneur as one important aspect in the evaluation process. Our aim is to understand the mechanisms used by social investors to judge the integrity of the entrepreneur. Integrity is defined as honoring one’s word and acting in accordance with a morally justifiable value system (Pollmann, 2005; Erhard et al., 2010).

One key challenge for social investors is that social entrepreneurs might get too focused on financial goals on the expense of social goals (Spear et al., 2007). The entrepreneur would then drift away from the initial purpose of creating primarily a social return (so called mission drift, Heister, 2010). Entrepreneurs have different opportunities to position themselves among financial and social return (Alter, 2004). It may even be rational for an individual to portray himself as a social entrepreneur with only a subordinate profit motive in order to acquire relatively cheap sources of capital from social investors. In addition to mission drift, the social impact may also be harmed by unethical behavior of the entrepreneur in the course of company development. Social entrepreneurs may decide for unethical behavior because they assume the end justifies their means (Zahra et al., 2009). The risk of a mission drift or unethical behavior is aggravated as social entrepreneurs often operate in areas

of scant oversight (Glaeser & Shleifer, 2001) and are not limited by traditional market mechanisms which drive inefficient organizations out of the market (Zahra et al., 2009). In addition, it is still difficult to assess the success of social ventures as universal performance indicators for social impact do not exist (Austin et al., 2006; Barman, 2007). Furthermore, it is often not possible to attribute the social impact to a single organization (Van Slyke, 2007; Dees & Anderson, 2002). Monitoring is hence difficult and high informational asymmetries between social investors and social entrepreneurs can occur. Investors are therefore more dependent on the trustworthiness of the entrepreneur than in the non-social sector. Trustworthiness is also important because social investors provide the investee with access to their network, an exclusive circle with a range of benefits (e.g. management consulting, legal advice). Untrustworthy behavior within this circle can cause damage for the members. Social investors will try to protect their network by only funding trustworthy entrepreneurs.

Therefore, social investors apply a multi-stage selection processes to find appropriate social entrepreneurs which will use their funds efficiently and pursue a long-term social mission. Within this selection process, trustworthiness of the entrepreneur is relevant as it acts as a signal for the future behavior of the entrepreneur. Perceived integrity is a key antecedent of trust (Mayer et al., 1995) which was also confirmed in initial interviews with social investment managers we undertook prior to setting up the research design for this study. Integrity gives an indication whether the social entrepreneur will pursue his social mission and the double bottom line in the long term.

Despite its relevance, only limited knowledge exists to date on how external investors judge the integrity of entrepreneurs. Our aim is to close this research gap by analyzing selection criteria used by social investors in order to evaluate the integrity of social entrepreneurs applying for funding. Our study is based on an experiment with 40 social investment experts where they had to rank constructed profiles of social entrepreneurs according to how they

would judge the integrity of the entrepreneur. As pre-defined attributes of the entrepreneur, we used personal as well as professional background, voluntary accountability efforts, reputation and awards/fellowships. Furthermore, the experiment was conducted with 40 students with academic knowledge in the area of social entrepreneurship to test whether experience had an influence on the assessment of integrity.

Our study adds to the theoretical discussion of integrity. We show how an individual's integrity, in our case the integrity of a social entrepreneur, is evaluated by outsiders such as external capital providers before the two parties form a relationship. We found that experts from the social investment arena judge the integrity of social entrepreneurs based on primarily two key attributes: voluntary accountability efforts and reputation. Furthermore, we show that experience influences the evaluation of integrity. By comparing the results of professionals and students, we find that experience leads to a simpler decision model with an increased focus on key elements.

THEORETICAL BACKGROUND AND HYPOTHESES

Although researchers have suggested a range of definitions for social entrepreneurship (e.g. Dees, 2001; Mair & Marti, 2006; Zahra et al., 2009), there is not yet a commonly accepted definition. However, the pursuit of a double bottom line approach with social and financial goals typically distinguishes social enterprises from for-profit enterprises and nonprofit organizations (Achleitner, et al., forthcoming). The increasing importance of social entrepreneurs has spurred the development of social investors that provide capital in alignment with the specific financing needs of social entrepreneurs. These capital providers include e.g. venture philanthropy funds, social venture capital funds, impact bonds or foundations with an adjusted funding approach which do not solely focus on funding single

projects. They all provide financial as well as non-financial support to their investees. Further characteristics are long-term support of innovative social enterprises, a predefined exit strategy, continuous performance measurement and an intense selection process (John, 2006; Achleitner, 2007; Grenier, 2006). Within the selection process, investors examine criteria like social mission, concept or innovation (Miller & Wesley, 2010). Furthermore, characteristics of the social entrepreneur are considered in order to assess his skills as well as his personal fit with the investor. Integrity is an important criterion in order to assess the personal fit of a social entrepreneur. Simons (2002) defines integrity as the perceived pattern of alignment between an actor's words and deeds. Perceived integrity is a prerequisite for trustworthiness (Glaeser et al., 2000; Mayer et al., 1995) because "a person who is perceived as not doing what he says might have substantial difficulties in establishing any trust at all" (Simons, 2002). Integrity has been identified as a relevant personal trait when selecting individuals. Chrisman, Chao and Sharma (1998) found that integrity was even more important than trustworthiness for the selection of successors in family firms. For personnel selection in general, integrity tests are shown to be useful in order to predict dishonest behavior (Ones & Viswesvaran, 2001). Judgments on integrity are often based on intuition or gut feeling (Jankowicz & Hisrich, 1987). Our aim is to disentangle the black box of the evaluation of integrity by identifying attributes that might influence gut feeling on integrity and empirically testing those attributes.

From a theoretical point of view, two different perspectives may be relevant for the perception of integrity of a social entrepreneur. First, social investors may focus on attributes of the social entrepreneur. These attributes include the motivation of a social entrepreneur, his background and his efforts to increase the transparency of his activities. Second, external judgments of the social entrepreneur might influence the evaluation of integrity. Reputation in the sector and awards/fellowships granted to the entrepreneur are sources for external

judgments. We analyze how these attributes of the social entrepreneur and external judgments shape the evaluation of integrity by social investors. After a theoretical elaboration on the relevance of five attributes namely the entrepreneur's personal experience, professional background, voluntary accountability efforts, reputation and awards/fellowships, we use conjoint analysis to empirically test the importance of these attributes.

Personal experience of the social entrepreneur

Social investors usually assess the entrepreneur's motivation as well as the origin of her motivation prior to their investment (Achleitner & Heister, 2009). Entrepreneurs need to be intrinsically motivated to establish a venture as they are likely to face challenges in the process of creating and scaling their ventures. As with any new venture, these challenges can lead to frustration of the entrepreneur and he may even decide to abandon the project. However, highly motivated social entrepreneurs are likely to pursue their mission even at difficult times (Martin & Osberg, 2007). Furthermore, the origin of the motivation of a social entrepreneur is important as it can be an indication for the entrepreneur's goal. A high social motivation can act as signal for perseverance of the entrepreneur and reduces the risk that the entrepreneur will drift away from his social mission.

Barendsen and Gardner (2004) found that the motivation of social entrepreneurs originates mostly from a personal experience of the problem addressed by their social venture. Personal experience implies that the social entrepreneur or close relatives and friends are or were affected by the social issue addressed (e.g. unemployment, social exclusion or violence). These experiences developed into deeply rooted beliefs and result in a high social motivation (Barendsen & Gardner, 2004). As personal experience increases the social motivation we propose:

Hypotheses 1: Social investors will evaluate the integrity of a social entrepreneur more positive if the social entrepreneur has a personal experience of the problem he is trying to solve.

Professional background of the social entrepreneur

The professional background of the social entrepreneur might also influence the evaluation of integrity by social investors. As a social entrepreneur applies business principles within the social sector, it would be helpful if he had experience in the business as well as the social sector. However, social entrepreneurs mostly have a background in either one of these sectors. Regarding the integrity of a social entrepreneur, there are different aspects which may explain how the professional background shapes the assessment of integrity.

Social entrepreneurs with a business background often face high financial opportunity costs when working in the social sector due to low salaries as well as limited profit opportunities and therefore seem to be highly committed. Furthermore, Miller and Wesley (2010) consider experience in the business sector as an indicator for the success of the social enterprise. However, actors with a business background do not seem to identify themselves with their social purpose as much as actors from the social sector (Miller & Wesley, 2010).

Prior experience in the social sector is assumed to be a signal for a high social commitment, altruistic motivation and possession of a strong value system (Miller & Wesley, 2010). Social entrepreneurs with a social background have shown through their prior career choice that they are committed to creating a social value instead of aiming for a high financial income. Therefore, social entrepreneurs with a professional background in the social sector may be less inclined to increase the financial return by reducing the social return of the venture. However, social entrepreneurs with a social background might lack incentives as well as know-how to professionalize and scale their venture as they often put a high emphasis on

working directly with their target group and less emphasis on general business tasks like reporting or developing a growth strategy. This might lead to conflicts with social investors.

From the theoretical considerations no clear preference for social or business background regarding the evaluation of the integrity of a social entrepreneur can be derived. On the one hand, business background seems to be a signal for high social commitment due to high financial opportunity costs. On the other hand, background in the social sector seems to reduce the risk of a mission drift. We assume that the evaluation of the professional background of a social entrepreneur is influenced by the professional background of the rater: While evaluating the integrity, social investors prefer social entrepreneurs which have a background similar to their own. The existence of such a similarity bias was already shown in various contexts. Venture capitalists prefer business entrepreneurs similar to themselves concerning field of education and type of professional background (Franke et al., 2006). Furthermore, similarity biases occur in employee selection and the selection of business associates (Anderson & Shackleton, 1990 for job interviews; Lichtenthal & Tellefsen, 2001 for business relationships). Moreover, Coleman (1990) and Barr (1999) found that most individuals are inclined to trust those similar to themselves which we reflect in the following hypotheses:

> *Hypotheses 2: Social investors will evaluate the integrity of a social entrepreneur more positive if the social entrepreneur has the same professional background.*

Voluntary accountability efforts of the social entrepreneur

A social entrepreneur can signal the social investor that he is a person of integrity and committed to the pursuit of a double bottom line through voluntary accountability efforts. Due to the lack of transparency in the social sector (Austin et al., 2006), accountability efforts are of particular importance for social ventures. They refer to disclosures of reports or the set-

up of a corporate governance structure and other mechanisms which facilitate external control (e.g. certification programs or memberships in umbrella associations). Disclosures of reports decrease informational asymmetries between investors and social entrepreneurs (Young, 2006). Furthermore, disclosures of social impact measurements serve to legitimize the existence of a social enterprise (Nicholls, 2005). The social entrepreneur might also set up an advisory board or appoint non-executive members to the board of directors. They control and monitor the activities of the social enterprise and thereby objectify important management decisions. The inclusion of advisory boards or non-executive members to the board of directors reduces possibilities for opportunistic behavior of the social entrepreneur (Fama & Jensen, 1983). The setup of advisory boards has decreased fraught in the nonprofit sector (Greenlee et al., 2007). Social investors often require a seat in the advisory board or the formation of an advisory board as a prerequisite for funding a social venture (Martin & John, 2006). Certifications or memberships in umbrella organizations are other mechanisms to reduce informational asymmetries by showing the willingness to have external visibility (Gugerty, 2009).

Overall, voluntary accountability efforts increase the external control of social entrepreneurs, help to reduce informational asymmetries between social entrepreneurs and social investors and thus might help to mitigate the risk of a mission drift or unethical behavior. If the social entrepreneur allows this form of external control, it may be a signal for his integrity. Therefore, we posit:

> *Hypotheses 3: Social investors will evaluate the integrity of a social entrepreneur more positive if the social entrepreneur engages in voluntary accountability efforts.*

External judgments of the social entrepreneur

The first three attributes were linked to the social entrepreneur and his efforts to signal transparency. For the assessment of a social entrepreneur's integrity, it is furthermore important how the social entrepreneur is perceived by others within the sector. Opinions of others are relevant in the social sector because this sector is characterized by a tight network of stakeholders with diverse interests (Anheier, 1995). The stakeholders within this network are dependent on each other, e.g. for volunteering or pro bono services (e.g. Jansen et al., 2010). Furthermore, the interconnectedness within the society is of high importance for the success of social organizations (Kreutzer & Jäger, 2008). Moreover, the reputation of the social investor is also linked to the public perception of the entrepreneurs she supports. Therefore, external judgments have an influence on the financing decisions of social investors (Padanyi & Gainer, 2003; Austin et al., 2006). Market players state their opinions about a social entrepreneur in selection committees of awards/fellowships within the sector. Furthermore, opinions of third parties are reflected in the reputation of a social entrepreneur. The distinction between awards/fellowships and reputation is that social entrepreneurs often receive awards for the facilitation of their future plans, whereas reputation is based on past actions (Fombrun, 1996; Podolny, 1994).

Reputation of the social entrepreneur

Reputation refers to stakeholders' evaluation and is based on information about past actions and performance (Fombrun, 1996). The perceived trustworthiness of a social entrepreneur is influenced by her reputation (Szper & Prakash, 2011). Social investors assess the reputation of a social entrepreneur by asking peers and experts in the sector for their feedback. Thereby, they build expectations about the future behavior of an entrepreneur (Duffner 2003). Thus, social investors put strong emphasis on the reputation of an entrepreneur for their funding decisions (Padanyi & Gainer, 2003; Austin et al., 2006). Reputation is especially relevant for

the assessment of young enterprises as there is not much public information available about these enterprises.

In case of unethical or untrustworthy behavior of an entrepreneur, information about such behavior can be spread by affected people in order to harm her reputation. Therefore, a high reputation seems to be a signal for trustworthy behavior in the past (Ensminger, 2001). Furthermore, it reduces the incentive of the entrepreneur for untrustworthy behavior in the future as this would destroy the reputation which she has built up (Diamond, 1989). Information of third parties should be reliable as they do not have an incentive to provide misleading information which could reduce their own reputation (Meyerson et al., 1996; Handy, 1995).

A high reputation can be a signal of integrity because it mirrors past behavior of the social entrepreneur and deters him from untrustworthy behavior. Therefore, we anticipate:

> *Hypotheses 4: Social investors will evaluate the integrity of a social entrepreneur more positive if the social entrepreneur has a high reputation.*

Awards / Fellowships granted to the social entrepreneur

Awards and fellowships are common in the social sector and regularly awarded to promising social entrepreneurs. For social investors such prize competitions are a valuable deal flow source because social entrepreneurs are preselected through these awards (Achleitner & Heister, 2009). For business entrepreneurs, it has already been shown that awards received by entrepreneurs increase the likelihood to receive funding by venture capitalists (Lerner, 1999). Prize competitions include intense selection processes and thus help to increase the transparency of the social sector. Award or fellowships granted to a social entrepreneur are an indicator that others have perceived the social entrepreneur as promising and trustworthy. Furthermore, awarded organizations receive more public attention (Fombrun, 1996) and thus

are more likely to be under public scrutiny. This public scrutiny reduces the incentive for unethical or untrustworthy behavior. We propose:

> *Hypotheses 5: Social investors will evaluate the integrity of a social entrepreneur more positive if the social entrepreneur has received awards or fellowships.*

Influence of experience on the evaluation of integrity

The evaluation of integrity of a person seems to be a complicated task which is based on hard facts as well as on aspects like gut feeling (Ashoka, 2007; Jankowicz & Hisrich, 1987). Evaluating the integrity of a social entrepreneur is even more complex as social entrepreneurs are pursuing a double bottom line approach and are not just fulfilling a single purpose (Achleitner, Spiess-Knafl, et al., forthcoming). Thus, their integrity concerning the fulfillment of two often conflicting purposes has to be assessed. The experience of the evaluator is likely to have an influence on the way integrity is judged. Prior studies on the influence of experience either found that experts have a more elaborated decision system taking into account more attributes than novices (Shanteau, 1992) or that they have simpler decision models than inexperienced decision makers (Lurigio & Carroll, 1985) and only focus on a small number of key factors (Shepherd et al., 2003). In order to test the influence of experience on the evaluation of integrity, we analyze differences between experts and students. We propose that experience has an influence on the evaluation of integrity and therefore we posit:

> *Hypotheses 6: Social investors will evaluate the integrity of a social entrepreneur different than students.*

METHOD

Scholars often investigate decision policies of managers using post-hoc methodologies, such as questionnaires or interviews (Shepherd & Zacharakis, 1999; MacMillan et al., 1987; Tyebjee & Bruno, 1984). While these methods can yield important insights on the decision making process, they also have some disadvantages. The use of post-hoc self-reported data, can cause biases such as recall bias and post hoc rationalization bias (Shepherd & Zacharakis, 1999). Furthermore, decision makers often lack introspection into their own decision policies or bias the results by intent (Franke et al., 2006). Conjoint analysis allows researchers to collect data as the decision is made and thereby overcomes many of the limitations of post-hoc methods. For investigating the evaluation of integrity, real-time methods are better able to portray the gut feeling of the participant in the decision process compared to post-hoc interviews. In conjoint analysis, participants are evaluating several constructed profiles which consist of combinations of parameter values of several attributes. Decision policies of participants are deducted from their evaluations of these profiles. Conjoint analysis allows to assess the significance level of the attributes as well as the relative importance of each attribute in the decision process (Shepherd & Zacharakis, 1999). Furthermore, trade-offs between different parameter values of the attributes can be quantified.

Metricized Limit Conjoint Analysis (MCLA): Methodological advancement in entrepreneurship research

There are two measurement methods to obtain the evaluations of the participants of a conjoint study. First, participants can rate the profiles on a predefined Likert scale. The advantage of rating is that it provides metric data. Second, participants can rank the profiles in order of the dependent variable. The main advantage of this measurement method is an increased manageability due to better haptics (Baierl & Grichnik, 2010). In addition, the participant

evaluates all profiles simultaneously in the ranking process. It is hence less likely that he will change his evaluation pattern in the process of the experiment which can increase reliability (Teichert, 2001). However, conjoint studies which use ranking for data collection only obtain ordinal data. So far, utility values of the ranked profiles were mostly calculated with the unrealistic assumption of equal distances between the profiles (Baierl & Grichnik, 2010). The approach used in our study, metricized limit conjoint analysis (MLCA), combines the advantage of increased information content through metric data with the advantages of ranking methods (Baierl & Grichnik, 2010). MLCA, which was developed by Baierl and Grichnik (2010), is based upon limit conjoint analysis (LCA). In LCA participants rank the profiles in a first step and are asked in a second step to place a limit card behind the last acceptable profile (Voeth & Hahn, 1998). The inclusion of a limit card leads to a separation of acceptable and non-acceptable profiles. In a study using MLCA, participants additionally are able to adjust distances between ranked profiles by placing wildcards. Wildcards are blank cards which can be placed between profiles in order to portray differences in the distance between profiles. Participants are free to choose if they want to include any wildcards. Via usage of wildcards ordinal scaled data is converted into interval scaled data (Baierl & Grichnik, 2010). Utility values of the profiles are calculated using the following formula[1]:

$$U_{ik} = \begin{cases} L_i + J_{kL_i} - p_{ki} + 0.5 & if \quad p_{ki} \leq L_i \\ L_i - J_{L_ik} - p_{ki} + 0.5 & if \quad p_{ki} > L_i \end{cases}$$

$$U_{ik} = utility\ value\ of\ scenario\ k\ for\ participant\ i$$
$$L_i = ranking\ after\ wich\ the\ limit\ card\ was\ positioned$$
$$J_{kL_i} = sum\ of\ all\ wildcards\ between\ scenario\ k\ and\ L_i$$
$$J_{L_ik} = sum\ of\ all\ wildcards\ between\ L_i\ and\ scenario\ k$$
$$p_{ki} = ranking\ of\ scenario\ k\ by\ participant\ i$$

[1] In comparison to Baierl und Grichnik (2010) the limit card is not interpreted as an additional wildcard.

See Figure I for an example of the ranking process including profiles, wildcards and the limit card.

Sample

Our sample consists of experts who are actively involved in the selection of social entrepreneurs as well as students in the field of social entrepreneurship. For the expert sample, we focused on investment managers of social venture capital funds and consultants of social investors. The directory of the European Venture Philanthropy Association and a list of John (2006) were used to identify potential participants. The participants were based in all major European countries. In total, 50 experts were contacted and 40 agreed to participate in our study. This represents a response rate of 80%. The average experience of the experts with social investments was 5.6 years. 85% have a university degree as highest degree. 50% have a background (education and previous experience) in the social sector, 50% in business. 68% of the participants are male.

Additionally, students with academic knowledge in the area of social entrepreneurship participated in our study. Overall, 47 students were contacted and 40 agreed to participate, leading to a response rate of 85%. The students did not have any practical experience with social investments. They were mainly enrolled in business programs (88%) but all of them had attended at least one course on social entrepreneurship prior to the experiment. Table I presents characteristics of our sample.

Data collection

We either met the participants in person to undertake the experiment or we guided them through a web implementation via phone. Prior to the ranking exercise, we explained our definition of integrity as described above and characterized the hypothetical social

entrepreneurs which were to be evaluated. Specifically, participants were told to assume that the social entrepreneurs, which they had to evaluate later on, achieve a clear social impact, are innovative and that their concepts have already been implemented successfully in pilot projects. Hence, we focus on the second stage of the selection process after the social entrepreneur already passed an initial screening. The participants then had to rank the profiles according to their perceived integrity from highest to lowest. In a second step, participants were asked to include a limit card behind the last acceptable profile. Thereby, the ranked profiles are divided into non-acceptable profiles and profiles where the perceived integrity is high enough to consider the social entrepreneur for further evaluation. In a third step, participants were able to adjust distances between ranked profiles using wildcards. In order to test participants reliability, they then had to rate two replicated profiles on a scale of -10 to +10. The conjoint task was followed by a post-experiment survey to obtain the participant's perception of the experiment and his or her introspection. Overall, 66% of the participants found the inclusion of wildcards helpful to portray the values of the profiles more precisely.

Measures

The dependent variable in this study is the perception of the social entrepreneur's integrity. The profiles of the hypothetical social entrepreneurs in our experiment entail five attributes which represent the independent variables and stem from the theoretical framework described above. Each attribute was presented at two levels:

(1) Personal Experience: affected; not affected

(2) Professional Background: mainly in social sector; mainly in business

(3) Voluntary accountability efforts: high; low

(4) Reputation: high; not high

(5) Awards/Fellowships: yes; now

Table II presents a complete definition of each of the attributes and the parameter values used in the conjoint analysis. We tested the attributes and parameter values in discussions with five experts from the sector (two investment managers of social venture funds, two social entrepreneurs and a lawyer active in this field). They confirmed the face validity for attributes and their levels.

For five attributes each with two levels, there are 32 (2^5) possible combinations for the profiles. In order to make the decision-making task more manageable, we used an orthogonal fractional factorial design to reduce the number of parameter value combinations (Green & Srinivasan, 1978). Our fractional factorial design resulted in eight profiles with which all main effects were testable. Additionally, we included two hold-out profiles which were not used to estimate the coefficients of the model but to measure the predictive ability of the model. Additionally, one limit card and 16 wildcards were offered to participants. Only one participant used all 16 wildcards. Therefore, we assume that 16 wildcards were sufficient.

Analysis

In order to calculate the influence of the parameter values on the perception of a social entrepreneur's integrity, we model the utility values as a continuous function of the five attributes. Each attribute j $(j=1,\ldots,5)$ enters the equation with one parameter value x_j, the coefficients of the remaining parameter values are implicitly set to zero (dummy variable technique). Furthermore, we employ a variable S_{ik} which has the value of one if the participant i has a business background and the background stated on profile k is social in order to test for the similarity bias concerning professional background.

$$U_{ik} = \beta_0 + \sum_{j=1}^{J} \beta_j x_{jk} + \gamma\, S_{ik} + \varepsilon_{ik}$$

The study provides 8 observations per participant for the calculations of the coefficients. With 40 experts and 40 students, there are a total of 640 observations. Even though this

implies a large number of degrees of freedom, there may be autocorrelation because the 640 observations are nested within 80 individuals. Therefore, we used hierarchical linear modeling (HLM) to analyze the data because it accounts for individual level variance (Raudenbush & Bryk, 2002). The intraclass correlation, a measure of dependence of decisions within participants (Raudenbush & Bryk, 2002), is 35.7% for experts and 19.5% for students.

RESULTS

Result of experts

A majority of the individual models of experts' decision policies (67.5%) explained a significant proportion of variance ($p<0.1$) with a mean R^2 of 0.95. It was possible to reproduce the utility values of the hold-out profiles correctly with the coefficients calculated (Kendall Tau for hold-outs = 1.00, $p < 0.01$). The test-retest reliability of the rankings was analyzed using two replicated profiles, which were ranked on a scale. We did not replicate all profiles as this would have overstrained time capacity of our participants. Overall, 88% of the participants rated the profiles correctly relatively to the position of their limit card, meaning that if the profile was previously ranked before the limit card the profile was rated positively, if after negatively. This shows that participants have a high level of consistency in judgment. Results are reported in Table III, which includes parameter values, coefficients, corresponding standard errors, t-values and levels of significance. Model 1 displays the effects of all five attributes on the evaluation of integrity. Model 2 accounts for the similarity bias concerning professional background by including an interaction term for that attribute additional to the coefficients of all attributes. It is shown that the effects of existence of personal experience (coefficient = 0.925; $p < 0.01$), high accountability efforts (coefficient =

4.000; $p < 0.01$), high reputation (coefficient = 4.063; $p < 0.01$) and awards/fellowships granted to the social entrepreneur (coefficient = 1.738; $p < 0.01$) were significant and positive, providing support for Hypotheses 1, 3, 4 and 5. There is no significant preference for professional background in the social sector (coefficient = 0.250; $p > 0.1$). Hypotheses 2 predicts that raters will judge integrity more positive if there is similarity between the rater's and the social entrepreneur's professional background. It is shown that background in the social sector leads to a benefit contribution of 0.720 ($p < 0.1$) for raters who have a similar background. On the contrary, raters with a business background judge experience in the social sector negatively (coefficient = -0.220; $p < 0.1$).

Our approach allows a meaningful comparison of attributes beyond a mere ordering of their importance. The importance of an attribute is calculated by relating the absolute parameter value of that attribute to the sum of all absolute parameter values. As Figure II illustrates, reputation (36.3%) and accountability efforts (35.7%) are by far the most important attributes. For an overall positive judgment of integrity of the social entrepreneur, it was sufficient for experts if either reputation or accountability efforts were high. Both attributes are more than twice as important as awards/fellowships (15,5%). Personal experience only accounts for 8.3% and professional background for 4.2% of the overall judgment.

Comparison to results of students

We now explore whether experience with social investments has an effect on the evaluation of integrity. Table IV entails the utility values for students. Overall, we find that both, experts and students, attach the highest importance to the attributes accountability efforts and reputation and the lowest to professional background. However, our analysis also reveals some key differences, providing support for Hypotheses 6. To identify how the results of experts differ from the results of students we calculated the results for the whole sample and interacted all terms with a dummy variable Δ_i that turns one if the participant is an expert.

$$U_{ik} = \beta_0 + \sum_{j=1}^{J} \left(\beta_{j1} x_{jk} + \beta_{j2} \Delta_i x_{jk}\right) + \varepsilon_{ik}$$

For the results see Table V. Figure III shows how the evaluations of experts differ from those of students. There are two significant differences in the benefit contributions: Personal experience is more important for students (coefficient = 1.819; $p < 0.01$) than it is for experts (coefficient = 0.925; $p < 0.01$). The opposite is true for reputation, which is judged as more important by experts (coefficient = 4.063; $p < 0.01$) than by students (coefficient = 3.531; $p < 0.01$). Furthermore, no similarity bias is found for students. They have a significant preference for social background (coefficient = 0.931, $p < 0.01$).

Concerning the overall assessment of integrity, evaluations of students are driven by a more balanced combination of the five attributes than evaluations of experts who strongly concentrate on the key factors reputation and accountability efforts. For students, a high reputation (coefficient = 3.531; $p < 0.01$) or high voluntary accountability efforts (coefficient = 4.456; $p < 0.01$) were stand-alone not sufficient for an overall positive judgment. Thus, experts deploy a simpler decision model than students.

DISCUSSION AND CONCLUSION

The objective of our study was to understand how social investors evaluate the integrity of social entrepreneurs. Based on an experiment with 40 professionals and 40 students, we explore the importance of five attributes for judging integrity: the entrepreneur's personal experience, professional background, voluntary accountability efforts, reputation and awards/fellowships granted to the entrepreneur.

Our findings indicate that the assessment of integrity by social investors is mainly driven by two attributes. First, voluntary accountability efforts such as disclosures of reports, corporate

governance structures or presence of external control are of high relevance. The second attribute is the reputation of a social entrepreneur. For an overall positive judgment of integrity of the social entrepreneur, it was sufficient if either accountability efforts or reputation were high. Of minor importance were awards/fellowships granted to the social entrepreneur as well as his personal experience with the social issue addressed by his venture. For professional background, we found that participants from the social sector have a preference for social entrepreneurs from the same sector. A comparison of the results of professionals and students indicates that experience influences the assessment of integrity. Professionals strongly concentrate on the key factors reputation and accountability efforts, whereas evaluations of students are driven by a more balanced combination of all five attributes.

Our paper contributes to theory by further analyzing the selection process of social investors. In this particular context, the judgment of the social entrepreneur's integrity is particularly relevant due to high informational asymmetries, agency costs and limited monitoring possibilities. By showing relative importance of different attributes and trade-offs between attributes, we add to research on integrity and social entrepreneurship. Furthermore, we add to past research in which only single factors of integrity were analyzed separately.

We used conjoint analysis to obtain our results. It is often criticized that conjoint analyses do not adequately portray decision tasks (Shepherd & Zacharakis, 1999) as artificial decisions are simulated (Böhler & Scigliano, 2009). However, the evaluation of profiles has an advantage over questions asked in surveys or interviews about the preferences of the participants because recall and post hoc rationalization bias of the participants are reduced (Riquelme & Rickards, 1992). Construct validity is another limitation which often appears in conjoint experiments because the criteria are predefined and cannot be selected by the

participants (Shepherd & Zacharakis, 1999). We validated our criteria in interviews with experts prior to the experiment in order to avoid this shortcoming.

Insights on the black box of evaluating integrity are important for social investors as well as for social entrepreneurs. Social investors can use the findings in order to understand their selection process. For social entrepreneurs, the findings are helpful for preparing their funding application. For instance, social entrepreneurs could increase their voluntary accountability efforts, e.g. by setting up an advisory board, in order to positively influence the judgment of social investors. Our results are also relevant for the for-profit sector in which it is important for venture capitalists to evaluate the integrity of business entrepreneurs prior to their investment (Harrison et al., 1997).

While we are able to explain what kind of constructs social investors use to evaluate integrity, it is not possible to link our results to the ex-post behavior of the entrepreneur. It would be interesting to further analyze whether social entrepreneurs which were selected based on reputation and/or voluntary accountability efforts showed in fact integrity during the investment phase. Concerning a potential mission drift we investigated how investors try to avoid it prior to their investments. However, a mission drift could also be induced by investors themselves (Milligan & Schöning, forthcoming). It should be an interesting area for future research to analyze consequences of a mission drift induced by investors can be prevented.

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Table I: Characteristics of participants

Professionals		
Experience with social investment	Ø 5.6 (std. dev. 3.38; range 0.5-17)	
Professional Background	Business, N = 20	Social Sector, N = 20
Highest Degree	University Degree, N = 34	PhD, N =6
Gender	Male, N = 27	Female, N =13
Students		
Course of Studies	Business, N = 35	Social Sciences, N = 5
Gender	Males, N = 25	Female, N = 15

Table II: Definition of independent variables

Attribute	Definition	Paramter values
Pers. experience	The social entrepreneur, close family members or friends are/ were directly affected by the social issue addressed by the social enterprise.	1 = affected, 0 = not affected
Prof. background	Prior work experience: Social entrepreneurs who were mainly active in the business or mainly active in the social sector.	1 = mainly in social sector, 0 = mainly in business
Vol. accountability efforts	Initiatives of the social entrepreneur to increase accountability of the organization like disclosures, performance evaluations or external control.	1 = high, 0 = low
Awards / fellowships	Stakeholders' evaluation of the social entrepreneur which is based on information about past actions and performance. Stakeholders include for instance affiliates, experts from the sector or patrons.	1 = yes, 0 = no
Reputation	Awards or fellowships granted to the social entrepreneur.	1 = high, 0 = not high

Table III: Regression results of expert sample[2]

Independent Variables		Model 1: Without interaction			Model 2: With interaction		
		Coefficient	Standard error	t-ratio	Coefficient	Standard error	t-ratio
Pers. experience	- affected	0.925	0.293	3.155 ***	0.925	0.293	3.161 ***
Prof. background	- social	0.250	0.293	0.853	0.720	0.406	1.772 *
PBi x prof. background	- bussiness x social				-0.940	0.564	-1.668 *
Vol. accountability efforts	- high	4.000	0.293	13.641 ***	4.000	0.293	13.669 ***
Reputation	- high	4.063	0.293	13.855 ***	4.063	0.293	13.882 ***
Awards / fellowships	- yes	1.738	0.293	5.926 ***	1.738	0.293	5.937 ***
Intercept		-3.356	0.628	-5.345 ***	-3.356	0.618	-5.427 ***
N		320			320		
Log. Likelihood		-814.424			-813.052		
Chi²		423.825 ***			428.309 ***		
Degrees of freedom		5			6		

[2] The table presents the results of multilevel mixed-effect linear regressions with the utility value as dependent variable. The sample is based on real-time experiments with 40 social investment experts based on metricised limit conjoint analysis (MLCA). Each participant had to rank eight profiles in total and placed the limit card and wildcards where appropriate leading to 320 observations in total. The regression differentiates between variance on the first level, the decision on integrity (fixed effect), and on the second level, the individual participant (random effect). All variables were standardized and group centered. * p<0.1, ** p<0.05, *** p<0.01

Table IV: Regression results of student sample[3]

Independent Variables		Model 3: Without interaction			Model 4: With interaction		
		Coefficient	Standard error	t-ratio	Coefficient	Standard error	t-ratio
Pers. experience	- affected	1.819	0.298	6.110 ***	1.819	0.297	6.120 ***
Prof. background	- social	0.931	0.298	3.130 ***	0.242	0.796	0.300
PBi x prof. background	- bussiness x social		0.000	0.000	0.787	0.844	0.930
Vol. accountability efforts	- high	4.456	0.298	14.980 ***	4.456	0.297	15.000 ***
Reputation	- high	3.531	0.298	11.870 ***	3.531	0.297	11.890 ***
Awards / fellowships	- yes	1.969	0.298	6.620 ***	1.969	0.297	6.630 ***
Intercept		-4.718	0.527	-8.960 ***	-4.718	0.526	-8.970 ***
N		320			320		
Log. Likelihood		807.631			-807.196		
Chi²		456.220 ***			458.550 ***		
Degrees of freedom		5			6		

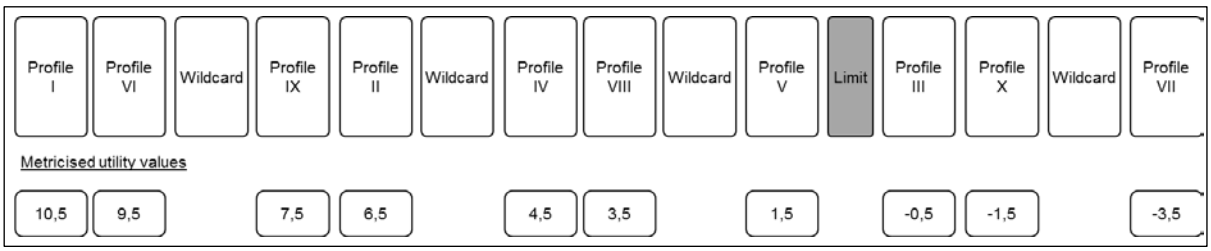
[3] The table presents the results of multilevel mixed-effect linear regressions with the utility value as dependent variable. The sample is based on real-time experiments with 40 students based on metricised limit conjoint analysis (MLCA). Each participant had to rank eight profiles in total and placed the limit card and wildcards where appropriate leading to 320 observations in total. The regression differentiates between variance on the first level, the decision on integrity (fixed effect), and on the second level, the individual participant (random effect). All variables were standardized and group centered. * $p<0.1$, ** $p<0.05$, *** $p<0.01$

Table V: Regression result for sample of experts and students interacted with status[4]

Independent Variables		Coefficient	Standard error	t-ratio
Pers. experience	- affected	1.732	0.291	5.950 ***
Prof. background	- social	0.844	0.291	2.900 ***
Vol. accountability efforts	- high	4.369	0.291	15.020 ***
Reputation	- high	3.444	0.291	6.470 ***
Awards / fellowships	- yes	1.882	0.291	11.840 ***
Status x Pers. experience	- affected	-0.719	0.404	-1.780 *
Status x Prof. background	- social	-0.507	0.404	-1.250
Status x Vol. accountability efforts	- high	-0.282	0.404	-0.700
Status x Reputation	- high	0.706	0.404	1.740 *
Status x Awards / fellowships	- yes	-0.057	0.404	-0.140
Intercept		-4.037	0.413	-9.770 ***
N		640		
Log. Likelihood		-1.624.908		
Chi²		876.960 ***		
Degrees of freedom		10		

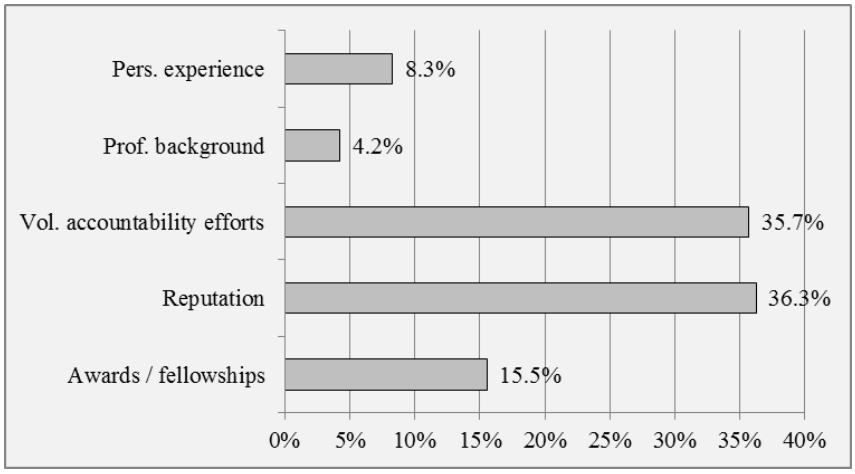
[4] The table presents the results of multilevel mixed-effect linear regressions with the utility value as dependent variable. The sample is based on real-time experiments with 40 experts and 40 students based on metricised limit conjoint analysis (MLCA). Each participant had to rank eight profiles in total and placed the limit card and wildcards where appropriate leading to 640 observations in total. The regression differentiates between variance on the first level, the decision on integrity (fixed effect), and on the second level, the individual participant (random effect). The table was calculated by including both samples into one data set and including an interaction term for each independent variable for the status (expert/student) of the participant. The interaction term turns one if status is expert. All variables were standardized and group centered. * $p<0.1$, ** $p<0.05$, *** $p<0.01$

Figure I: Metricised Limit Conjoint Analysis (MLCA)[5]



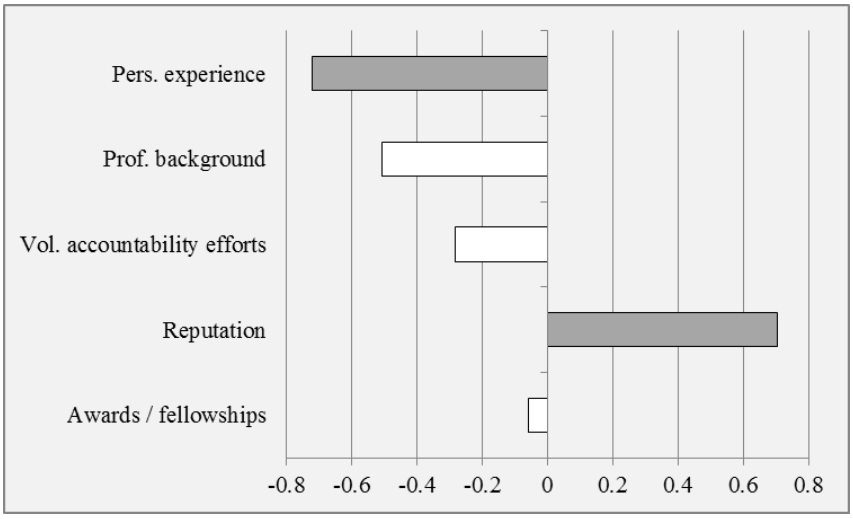
[5] The figure shows the ranking procedure used in our real-time experiment. The procedure was based on the metricised limit conjoint analysis (MCLA) as developed in Baierl and Grichnik (2010).

Figure II: Attribute contributions of expert sample[6]



[6] The figure shows the attribute contributions of each independent variable based on multilevel mixed effect linear regressions on the expert sample. The sample is based on real-time experiments with 40 experts based on metricised limit conjoint analysis (MLCA). The attribute contributions are calculated using the coefficients of Model 2 of the expert sample.

Figure III: Difference in benefit contributions between Experts and Students[7]



[7] The figure shows the differences of benefit contributions of the independent variables for the expert and the student sample. Reading Example: Experts rate "Reputation" 0.71 points higher than students. Differences were calculated by including both samples into one data set and including an interaction term for each independent variable for the status (expert/student) of the participant. Grey bars: coefficient significant on 10% level.