



SMEs and the Use of Their Full Potential for Sustainable Entrepreneurship: Empirical Evidence from the Dutch Construction Sector

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Abstract. We investigate the extent to which SMEs exercise sustainable entrepreneurship practices. The 128 SMEs operating in the Dutch construction sector that were studied for this paper appeared to use about only two-thirds of their full potential for sustainable entrepreneurship, in terms of social and ecological activities. The main obstacles to the development of sustainable entrepreneurship appeared to be associated with the firm itself and with the environment in which the firm operates, rather than with the entrepreneur himself/herself. It also appeared that firms which are more active with social and environmental activities are also more aware of the obstacles than firms that are less active in sustainable entrepreneurship. This suggests that less active firms are simply less interested in practicing sustainable entrepreneurship, rather than being held back by (perceived) obstacles.

Keywords: sustainable entrepreneurship, obstacles, small and medium-sized enterprises, entrepreneurs, construction sector.

1. Introduction

In recent years, an increasing number of scientific studies have paid attention to sustainable entrepreneurship by small and medium-sized enterprises (SMEs). In the early days, the main focus was on large, often multinational, corporations. However, since then, there has been a substantial amount of research on sustainable entrepreneurship by SMEs (Battisti and Perry, 2011; Baumann-Pauly et al., 2013; Campos, 2012; Choongo et al., 2016; Halme and Korpela, 2014; Hofmann et al., 2012; Jamali et al. 2009; Wilson et al., 2012). Frequently treated subjects are, amongst others: the motivation to engage in sustainable entrepreneurship and the relationship between sustainable entrepreneurship and the firm's economic performance. The motivation to engage in sustainable entrepreneurship may have to do with the person of the entrepreneur (De Clercq and Voronov, 2011; Kuckertz and Wagner, 2010; Lourenço et al., 2012; Williams

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and Schaefer, 2013) or with the entrepreneur acting together with stakeholders (Alniacik et al., 2011; Russo and Perrini, 2010; Tang and Tang, 2012). One specific motivation to engage in sustainable entrepreneurship may be the positive link with a firm's economic performance, although the research covering this relationship has provided mixed results (see, e.g., Brammer et al., 2012; Vickers and Lyon, 2014). But hardly any attention has been paid to the question to which extent SMEs use their full potential for sustainable entrepreneurship. This gap is an important shortcoming in the literature, especially when it is seen in the light of the current stimuli for SMEs to increase their sustainable activities (see, e.g., Horizon-2020 (EU, 2018), but also local initiatives; see, e.g., Peutz and Maas, 2011). To inform this stimulation process, it makes sense first to establish the extent to which SMEs use their full potential for sustainable entrepreneurship. In other words: what can be won with the stimulation of sustainable entrepreneurship by SMEs? Then, in order to move the entrepreneur more into the direction of sustainable entrepreneurship, it is also important to distinguish the obstacles that entrepreneurs perceive to further exploit their full potential for sustainable entrepreneurship. Take away these perceived obstacles, and the entrepreneurs may increase their activities in sustainable entrepreneurship and increasingly meet the objectives of the above mentioned initiatives to promote sustainable entrepreneurship.

This paper aims to contribute to bridging this gap in the literature. Therefore, the focus of this paper is on the use of the full potential for sustainable entrepreneurship by SMEs. For this purpose, three corresponding research questions were formulated: 1) To what extent do SMEs use their full potential for sustainable entrepreneurship?; 2) What are the main obstacles for SMEs to develop sustainable entrepreneurship?; 3) Do SMEs that are more active in sustainable entrepreneurship identify less obstacles than SMEs that are less active in sustainable entrepreneurship? Obviously, the second research question is only applicable when the first research question yields an answer that is significantly less than 100%, as we choose to answer these questions with the help of statistics. It is, however, plausible to expect that the extent to which SMEs use their full potential when it comes to sustainable entrepreneurship will be lower than 100%, and therefore the second research question is relevant here.

The paper includes an empirical study with self-collected data from 128 SMEs operating in the Dutch construction sector in the period 2013-2014. The construction sector has, in general, proved to be a good area for research on sustainable entrepreneurship by SMEs (Burke, 2011; Masurel and Rens, 2015). Also, the Netherlands has proved to be a good area for research in the field of sustainable entrepreneurship (Graafland et al., 2003; Uhlaner et al., 2012).

The set-up of the paper is as follows. The next section will discuss the literature on sustainable entrepreneurship by SMEs. Section 3 derives the hypotheses while the empirical analysis is covered by Section 4 and 5. Finally,

discussion of the results and conclusions of the paper are provided in Section 6 and 7, respectively.

2. Literature

2.1. SMEs: Quantitative and Qualitative Characteristics

In distinguishing SMEs, both a quantitative and a qualitative approach may be used. As far as the quantitative characteristics are concerned, we use the definition of SMEs that is used by the European Union (EU) (see EU, 2016). This definition of SMEs mainly focuses on the number of employed people per SME (“staff headcount”): less than 250. In addition to this headcount, a firm qualifies as an SME if it meets either the turnover ceiling (not more than €50 million) or the balance sheet ceiling (not more than €43 million). On the basis of these criteria, it can be concluded that SMEs represent more than 99% of all firms in the EU (including the Netherlands).

Apart from using the quantitative approach to identify SMEs, it is also possible to use a qualitative approach, in which the differences in appearance between SMEs and large firms are emphasized, and in which SMEs are not treated as being equivalent to large firms. In other words: ‘a small business is not a little big business’ (Welsh and White, 1981, p. 18). The dominant role of the entrepreneur (also often referred to as the owner-manager and/or the founder) within the firm may be the most distinguishing qualitative characteristic of SMEs, compared with large firms, because he/she is most often both the proprietor and the daily director of the firm. The crucial role of the entrepreneur in SMEs also applies to the key role he/she plays when it comes to the exercise of sustainable entrepreneurship in his/her firm (see, e.g., Cassels and Lewis, 2011; Fassin et al., 2015; Hsu and Cheng, 2012; Kuckertz and Wagner, 2010; Williams and Schaefer, 2013).

Other important qualitative characteristics of SMEs are the resource poverty of the firm (in terms of capital, time, knowledge, and skilled personnel); the focus on the short term in its operations (although they may continue to exist for a long time); the strong regional and local focus (most clients and suppliers come from the direct environment of the firm); a complicated performance measurement (most SMEs use a palette of performance measures); the prevalence of family businesses (which means that one family is dominant within the firm); a low degree of diversification (or a high degree of specialization); a simple organizational structure (with only a few layers or even a single layer within the organization); an informal character (partly because the entrepreneur is often an active co-foreman within the firm); and an important role for umbrella organizations in order to compensate for scale diseconomies, e.g. trade

associations and franchise organizations (Chong, 2008; Dickson et al., 2006; Hausman, 2005; Hudson et al., 2001; Spence and Lozano, 2000; Spence and Rutherford, 2003).

2.2. Sustainable Entrepreneurship by SMEs

Originally, the main focus was on corporate social responsibility (CSR) by large, often multinational, corporations, but in recent years the amount of research devoted to SMEs has greatly increased (see the Introduction to this paper for a number of key references). As the entrepreneur plays a crucial role in SMEs (see previous sub-section), it is justified to use the term “sustainable entrepreneurship” when dealing with CSR by SMEs.

In the previous section, it was shown that SMEs have their own characteristics, when compared to large firms. On the basis of this judgment, it seems to be obvious that sustainable entrepreneurship by SMEs is also different from sustainable entrepreneurship (or CSR) by large firms. According to European Commission (2015), a large proportion of SMEs have always been active in the field of CSR, be it less formal and more intuitive than in larger enterprises. This touches upon one typical qualitative characteristic of SMEs, viz. their informal character. Further, it has been stated that SMEs usually identify themselves closely to the region or town where they are located: this touches upon another qualitative aspect of SMEs, viz. their strong regional and local focus of SMEs.

Morsing and Perrini (2009) claimed that the impact of SMEs engaging in CSR on the social and environmental dimensions has been underrated by policymakers and researchers. Kechiche and Soparnot (2012) noted that the SMEs consider CSR not as an add-on but rather as a part of the overall day-to-day management. Lawrence et al. (2006) called attention to the fact that individual SMEs may have only small social, environmental and financial impacts, but cumulatively their impact is significant. This all touches upon the small size of SMEs. According to Baumann-Pauly et al. (2013), smaller firms are not necessarily less advanced in organizing CSR than large firms, but SMEs and large firms are different from each other.

2.3. Obstacles to the Development of Sustainable Entrepreneurship by SMEs

An “obstacle”, as defined by the Oxford Advanced Learner’s Dictionary, is “a thing that blocks one’s way or makes movement, progress, etc difficult”. There is a great deal of information available on general obstacles for the development of SMEs (see, e.g., Lougui and Nyström, 2014). However, there is no unambiguous picture of the obstacles that SMEs face with the development of sustainable

entrepreneurship. Below follows a systematic enumeration of the most important results from recent scientific research about these obstacles:

- Inyang (2013), on the basis of a study of emerging literature, identified 10 ‘constraints and challenges associated with the adoption and implementation of CSR by SMEs’: the cost of implementation; time constraints; limited knowledge; lack of awareness; lack of capacity; no systematic incentives; lack of information; existing tools and guidelines mainly designed for large firms; lack of adequate support services; and fear of additional burdens.
- Fenwick (2010) studied the “difficulties encountered by small business owners adopting social responsibility practices”, and mentioned three major challenges: the lack of a commonly agreed definition or perspective of CSR and the tendency of SMEs to reject the discourse and frames of ‘corporate’ social responsibility as being distant to their own concerns and activities; the contested ethical responsibility owed by businesses undertaking social responsibility: to be precise, who is responsible to whom for what; and the perception that social responsibility is too costly, too difficult, too time-consuming, or too removed from core business goals to be worthwhile.
- Sweeney (2007) mentioned as barriers experienced by SMEs when undertaking CSR: a perception that CSR is not an issue for SMEs and does not relate to SMEs; and resource constraints such as financial, human, and time limitations.
- Morsing and Perrini (2009) stated that engagement in CSR for SMEs is not an easy task but poses a number of challenges. The participation of SMEs in global supply chains has been clearly posed as a dilemma, as multinational corporations are seen to regulate the behaviours of SMEs beyond any legal regulation and against the interests of the SMEs. The general perception that CSR represents a new burden and a threat is considered a challenge as well.
- Jenkins (2006) mentioned as the key CSR challenges for SMEs: time and resource constraints; and getting employees involved. Further, she mentioned: embedding a CSR culture in the company; measuring and quantifying the benefits of CSR; making connections with the community; a lack of information or support; and maintaining the momentum of activities.

- Santos (2011) listed among the greatest obstacles blocking the implementation of CSR practices for SMEs: lack of public support; and insufficient financial resources. As lesser obstacles were listed: lack of time; lack of information; and the complete lack of any relationship with company activities.
- Shi et al. (2008) mentioned as the top three barriers to cleaner production (a specific interpretation of sustainable entrepreneurship): lack of economic incentive policies; lax environmental enforcement; and high initial costs.
- According to Klewitz et al. (2012), the lack of resources (such as personnel and time) is a central barrier for SMEs to deal with sustainability and eco-efficiency (another specific interpretation of sustainable entrepreneurship).
- Revell et al. (2010) showed that SMEs perceived increased costs as the major barrier to environmental reform (another specific interpretation of sustainable entrepreneurship), followed by poor infrastructure to support activity, and lack of staff time to introduce measures.

Summarising the above review, it can be concluded that despite the different research settings and the various approaches, a number of dominating obstacles that SMEs face regarding the development of sustainable entrepreneurship can be identified. One of the major obstacles for the development of sustainable entrepreneurship by SMEs is the costs involved. Other important obstacles for the development of sustainable entrepreneurship by SMEs are: having the right employees; the availability of time; and support from stakeholders. Costs, time, and staff may be combined into the well-known qualitative characteristic of SMEs: the resource poverty of the firm. The perception that sustainable entrepreneurship is something typically for large firms, and not for SMEs, is often mentioned in the research but, again, that seems to be dated when looking at the results in a number of recent publications in this field. Further, SMEs conduct sustainable entrepreneurship in a different way from large firms, so the differences between SMEs and large firms also seem to be a matter of definition to a certain extent. This definition issue is tackled in this paper by designing a questionnaire that fits well with the way in which SMEs may apply sustainable entrepreneurship (see Section 4).

3. Hypotheses

On the basis of the literature review, it can be concluded that there is hardly any evidence on the extent to which entrepreneurs in SMEs use their full potential for sustainable entrepreneurship. Some circumstantial evidence may be derived from

the observation that SMEs are relatively new in the field of sustainable entrepreneurship (compared with large firms). Therefore, we formulate the first hypothesis as follows:

H1: SMEs do not use their full potential for sustainable entrepreneurship.

The most prominent qualitative aspect of SMEs is the entrepreneur. It can, therefore, be expected that the entrepreneur is also the main reason why SMEs do not use their full potential as far as sustainable entrepreneurship is involved. Moreover, the characteristics of the firm and the environment in which it operates (especially the roles that are played by its stakeholders) may play a role in the underutilization of its full potential for sustainable entrepreneurship. We acknowledge that the three concepts (the entrepreneur, the firm and the environment) in practice are strongly connected, but it still makes sense to identify the three concepts from the perspective of the entrepreneur: do the obstacles in the area of sustainable entrepreneurship according to the entrepreneur have to do with himself/herself, with the firm in which he/she is working or with the external environment outside the firm? Therefore, we formulate the second hypothesis as follows:

H2: The main obstacle for SMEs to the development of sustainable entrepreneurship is the entrepreneur himself/herself.

Further, it is expected that obstacles will prevent SMEs from utilizing more of their full potential in (the development of) sustainable entrepreneurship. Therefore, we formulate the third hypothesis as follows:

H3: There is a negative relationship between the extent to which sustainable entrepreneurship is exercised by SMEs and the severity of the obstacles to exercising sustainable entrepreneurship perceived by SMEs.

4. Fieldwork

The data for this research project were collected from SMEs in the Dutch construction sector, with the help of the main trade association in this sector: Uneto-Vni (see Uneto-Vni, 2016). Generally, Uneto-Vni represents firms in what the Dutch call “the installation sector” (according to Uneto-Vni, the NACE code F 43.2 comes closest, i.e. Electrical, plumbing and other construction installation activities, although other codes are also possible). In one sense, “installation” can be interpreted as “construction”, and that is why here we use the more well-known term “construction sector”. As well as the construction sector, Uneto-Vni also represents retail stores which sell construction materials, machines,

equipment, etc. However, these retail stores were not included in this research. Firms in the construction sector are active within different segments, such as residential construction, utility construction, manufacturing, and infrastructure. These firms provide different services: design, consultancy, installation, management, etc. Operations within the construction sector often have significant consequences for the natural environment. Moreover, the construction sector is very labor-intensive: about 70% of the added value in this sector comes from labor (Masurel and Rens, 2015). The members of Uneto-Vni account for about 90% of all revenues generated in the Dutch construction sector. Uneto-Vni had (about) 4,450 member-firms in the period when the survey was carried out, and almost all of these member-firms are SMEs.

The data collection took place by means of a survey in Dutch among the members of Uneto-Vni, specifically the owner-managers of SMEs. This survey consisted of questions and items on four different subjects: the entrepreneur; the firm; social and ecological activities; and barriers to sustainable entrepreneurship. For the ten social activities and the ten ecological activities, the respondent only had to tick “yes” or “no”, concerning whether the activity was undertaken by the firm in the period August 2013 - August 2014. For the nine barriers to sustainable entrepreneurship, the respondent had to indicate his/her own score, on a 5-point Likert scale (strongly disagree = 1; disagree = 2; neither agree nor disagree = 3; agree = 4; strongly agree = 5). After having developed the survey on the basis of the studied literature and information provided by the trade association (Uneto-Vni), the survey was tested in a pilot project, in order to determine its validity, and then it was fine-tuned, by making a number of minor changes. By e-mailing a direct link to the survey in October 2014, the whole population of 4,450 firms gained access to the online survey. The link to the survey was also presented in Uneto-Vni’s newsletter and on their Twitter account. Further, by visiting two events, additional contact was made with members of Uneto-Vni; a number of entrepreneurs filled in a printed questionnaire on the spot while others completed the survey at home afterwards and returned it by mail. Additionally, by means of telephone calls, the survey was also completed by others as well. So, all in all, we see a diverse approach of convenience sampling here. From the population of the 4,450 firms, 131 respondents completed the survey, a response rate of 2.9%. After excluding three respondents, because they belonged to the group of large firms, there remains data from 128 SMEs.

From the whole sample of 128 entrepreneurs/owner-managers, 19.0% of the respondents were younger than 40 years. 84.4% of the respondents were male. Further, 57.0% of the respondents had completed only lower or intermediate vocational education, whereas 43.0% had completed higher vocational education or university. According to Uneto-Vni, these data are rather in line with the data on the whole population of its members, so the fieldwork for this paper can be seen as more or less representative for the group of SMEs in the whole construction sector in the Netherlands. Concerning the size of the firms, we observed a relative over-representation of larger SMEs.

5. Testing the Hypotheses

From Table 1 it becomes clear that the SMEs only participate in 65.6% of all potential social activities, and 65.9% of all potential environmental activities. So, there is hardly any difference between the scores on social activities versus those on environmental activities. However, within the respective groups there is some dispersion. The Cronbach's alpha values are at satisfactory levels (0.674 for both groups of activities). So, the first hypothesis is fully accepted: SMEs do not use their full potential in the field of sustainable entrepreneurship, as they engage only in about two-thirds of all possible social and ecological activities.

Table 1. Frequency of social and ecological activities (N=128)

Activity	Percentage
<i>Social</i>	
My firm offered internships to students	80.4
My firm offered development trajectories to its employees	71.1
My firm created a healthy work environment for its employees	93.0
My firm held evaluation conversations with its employees periodically	75.0
My firm made use of a formal complaints system for its clients	39.8
My firm ensured that its employees were up-to-date about internal business developments	78.3
My firm offered its employees flexible working hours	47.7
My firm sponsored social activities	82.0
My firm offered jobs to people distant from the labor market	38.3
My firm shared knowledge about social innovation with its clients	50.0
Average	65.6
<i>Environmental</i>	
My firm offered its clients energy-saving solutions	93.0
My firm offered its clients solutions to reduce CO ₂ emissions	68.8
My firm offered its clients waste-reduction solutions	29.7
My firm offered its clients water-saving solutions	57.8
My firm paid attention to its own energy reduction	93.0
My firm paid attention to its own CO ₂ emission reduction	76.6
My firm paid attention to its own recycling	92.2
My firm paid attention to its own water saving	64.8
My firm made use of renewable energy	54.7
My firm made environment-related innovation arrangements with its suppliers	28.9
Average	65.9

The next step is to look at the reasons why the entrepreneurs of SMEs do not use their full potential in the field of sustainable entrepreneurship. It was hypothesized that the main reason for this has to do with the entrepreneur himself/herself, because of the dominant role of the entrepreneur within the firm, and not so much with the firm itself, nor with the context in which the firm operates. However, Table 2 shows a different picture. The three entrepreneur-related reasons clearly come in the bottom part of the reasons (with an average score of 2.56), whereas the three firm-related reasons (with an average of 3.08) and especially the three environment-related reasons (with an average score of 3.40) obviously dominate the personal reasons. The Cronbach's alpha value for the entrepreneur-related reasons is 0.589: this is rather low but dropping any of the three items did not lead to an increase in the value of the Cronbach's alpha. The Cronbach's alpha values for the firm-related reasons and for the environment-related reasons are at satisfactory levels: 0.742 and 0.733, respectively. The differences between the three means are all significant even at $p < 0.01$ (2-tailed). This all leads to a clear rejection of Hypothesis 2: the main reason why SMEs do not use their full potential in the field of sustainable entrepreneurship does not mainly have to do with the entrepreneur himself/herself, but has more to do with the firm, and the environment of the firm. So, when it comes to obstacles for exercising sustainable entrepreneurship, the entrepreneur is less important than the environment and the firm.

Table 2. Obstacles to the development of sustainable entrepreneurship (N=128)

	Average
<i>The entrepreneur</i>	
I have no knowledge about how to develop sustainable entrepreneurship within my company	2.49
I have little sympathy with sustainable entrepreneurship	2.27
I am afraid that sustainable entrepreneurship activities lead to additional rules and regulations	2.94
Average	2.56
<i>The firm</i>	
My firm doesn't have enough time for sustainable entrepreneurship	2.89
My firm has insufficient financial resources for sustainable entrepreneurship	2.95
My firm has not implemented sustainable entrepreneurship professionally	3.38
Average	3.08
<i>The environment</i>	
My firm has little influence on the sustainable entrepreneurship situation of its suppliers	3.41
The services offered by the trade association provide inadequate help to implement sustainable entrepreneurship within my firm	3.30
My firm has little influence on the sustainable entrepreneurship situation of its clients	3.49
Average	3.40

The next question we aim to answer is whether there is a negative relationship between the extent to which sustainable entrepreneurship is exercised by SMEs and the severity of obstacles to engaging in sustainable entrepreneurship perceived by SMEs. For that purpose, we aggregated the ten social activities into one construct and the ten ecological activities into one construct. These aggregations are justified by the Cronbach’s Alpha values, as described earlier. Further, we aggregated the three entrepreneur-related obstacles into one construct, the three firm-related obstacles into one construct, and the three environment-related obstacles into one construct, respectively. The justification for these aggregations also comes from the Cronbach’s Alpha values as described earlier. Surprisingly, from Table 3 it becomes clear that there is not a single significant negative relationship between the degree to which SMEs participate in social activities and ecological activities, on the one hand, and the entrepreneur-related obstacles, the firm-related obstacles and the environment-related obstacles, on the other. In fact, on the contrary: all six cells show positive significant relationships, which means that the more SMEs participate in social activities and ecological activities, the more entrepreneur-related, firm-related, and environment-related obstacles for further development are perceived. This all leads to a convincing rejection of Hypothesis 3: the reason why SMEs do not use their full potential in the field of sustainable entrepreneurship does not have to do with perceived obstacles.

Table 3. Correlation between the frequency of social and ecological activities and obstacles to the development of sustainable entrepreneurship (N=128)

	The entrepreneur	The firm	The environment
Social activities	0.448*** (0.000)	0.429*** (0.000)	0.310*** (0.000)
Environmental activities	0.248*** (0.005)	0.343*** (0.000)	0.248*** (0.005)

*** p < 0.01 (2-tailed). P-values in brackets.

6. Discussion

Hypothesis 1 was accepted unambiguously: SMEs do not use their full potential in the field of sustainable entrepreneurship: they only used about two-thirds of all their possibilities in the field of sustainable entrepreneurship.

Hypothesis 2 was clearly rejected: the entrepreneur appeared not to be the main factor responsible for SMEs not using their full potential in the field of sustainable entrepreneurship. The main reason appeared to concern the environment in which the firm operates. This may have to do with the fact that SMEs, in general, do not have a strong influence on their environment (i.e., stakeholders), due to their small individual size. The second important set of

barriers is related to the firm itself. In the eyes of the entrepreneur, he/she forms only a minor barrier for developing sustainable entrepreneurship within the firm. So, although the entrepreneur, as the active owner-manager of the firm, plays a crucial role in his/her firm, this role is out-played by the firm and the environment, when it comes to using the full potential of the firm in the field of sustainable entrepreneurship. Nevertheless, we acknowledge that the three concepts (the entrepreneur, the firm and the environment) in practice are strongly connected.

However, the rejection of the second hypothesis may also have to do with the perception of the entrepreneur. Although it is a highly accepted approach to consult the entrepreneur on issues concerning SMEs, the entrepreneur may suffer from personal perception or subjective bias, which may prevent him/her from grasping the objective picture. In this context, it is useful to refer to Roxas and Lindsay (2012), who mentioned social desirability bias in survey research on sustainable development in small firms.

Hypothesis 3 was also rejected: the reason why SMEs do not use their full potential in the field of sustainable entrepreneurship is not caused by the level of perceived obstacles. The relationship even appeared to be the reverse, viz., showing a positive relationship between the degree to which SMEs engage in sustainable entrepreneurship, on the one hand, and the level of perceived obstacles, on the other. This may have to do with awareness: a lower involvement in sustainable entrepreneurship may not really trigger the thinking about obstacles, whereas a higher degree of involvement may make the entrepreneur more aware of the obstacles which confront him or her. The finding seems to imply that firms less active in practicing sustainable entrepreneurship are simply not interested in doing so rather than being held back by (perceived) obstacles. Further, it may have to do with a level of saturation: in the early stages of the development of sustainable entrepreneurship, the entrepreneur may not run into obstacles, because he/she will pick the lower hanging fruit, in terms of undertaking rather easy sustainable activities, whereas obstacles may become more important when the number of activities increases, when all the easy activities have been implemented, and when doing more activities becomes more complicated.

7. Conclusions

After the study of theoretical sources, three hypotheses were formulated and tested with data from SMEs that were gathered in the Dutch construction sector specifically for this paper. First, it was found that the SMEs only used about two-thirds of their full potential when it comes to engaging in sustainable entrepreneurship; this share also applies more or less to social and ecological activities taken separately. Second, it was found that the main reason why the SMEs did not use their full potential for sustainable entrepreneurship is more

strongly related with the environment in which the firm operates and the firm itself, rather than with the entrepreneur himself/herself (although perception by the entrepreneur himself/herself may play a role here). Third, a lower level of implemented sustainable entrepreneurship is not related to a higher level of obstacles, and there is even more reason to argue the reverse: that there is a positive relationship between the level of implemented sustainable entrepreneurship and the level of (perceived) obstacles. This may have to do with the increased awareness of entrepreneurs who are more involved with sustainable activities, with the saturation of entrepreneurs who are more advanced in implementing sustainable entrepreneurship, and with the issue of picking low hanging fruit first. This particular result may also indicate that firms less active in practicing sustainable entrepreneurship are simply less interested in doing so.

This study has a number of limitations. The first concerns the small basis of the sample: the empirical analysis was based on only one sector. Although it can be justified to do this research in one sector only, the generalizability of the research results is obviously limited. The second limitation is that the answers to our survey were gathered from the entrepreneur himself/herself. Although it is well accepted that research about SMEs focuses on the entrepreneurs, attention should also be paid to issues like personal perception and subjective bias. The third limitation concerns the equal weight we have given to all 20 social and ecological activities, and the equal weight that we have given to all nine obstacles.

The recommendations for future research follow from these three limitations. First, it is advised to undertake comparable research both in other sectors and in other countries, and to compare the various research results. Next, it is advised to use other research approaches, e.g., observation of the entrepreneurs by researchers and the use of the entrepreneurs' peers. Finally, research could be extended by considering the weights that respondents give to individual social and ecological activities and to individual obstacles. The actual implementation of these recommendations would contribute further to our understanding of the obstacles that entrepreneurs perceive in the development of sustainable entrepreneurship within their firms.

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