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Beyond Financial Performance and Corporate Greening: Mapping out the Research Field of Sustainability Entrepreneurship

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Abstract: Sustainability entrepreneurs are seen as key actors in facing contemporary structural problems and creating sustainable growth and wealth. They bring into being a new approach to business opportunities that resolves the dualistic divide between business ventures and altruistic endeavours, in favour of a new logic based on the creation of economic value beyond corporate boundaries while improving the social and ecological environments. Despite the recent surge of research interest on this topic, there remains a lack of understanding of the nature of this phenomenon. Therefore, there is a need to define boundaries, connect theoretical fields and provide deeper explanations of sustainability entrepreneurship beyond current approaches to corporate sustainability and social entrepreneurship.

This paper seeks to address some of these issues by focusing on the distinctive importance of sustainability entrepreneurship within entrepreneurship research and developing a conceptual framework aimed at mapping out the field while at the same time adhering to empirical relevance. In doing so, we define sustainability entrepreneurship as the scholarly examination of how and by whom opportunities to create future goods and services are recognised, evaluated, and exploited, while improving the development of society, the economy and the environment, allowing future generations to meet their own needs. Based on this definition, we draw upon literature on entrepreneurship theory and sustainable development and propose three avenues for further research on this topic: theoretical and empirical definition of sustainability entrepreneurs, the process of development of sustainability-oriented venture opportunities and the interaction between institutions and sustainability entrepreneurship. Within each avenue we pose relevant research questions that are of both descriptive and explanatory nature, and aim to bring closer the conceptual and empirical aspects of sustainability entrepreneurship. Focusing on these dimensions and questions helps visualise and analyse currently disparate conditions, features, and outcomes of sustainability entrepreneurship, thus increasing the intensity and quality of future theoretical and empirical work.

Keywords: sustainability entrepreneurship, entrepreneurship research, venture opportunities, sustainable development

1. Introduction

There is a growing recognition that modern societies face a number of structural problems primarily derived from unsustainable business practices. Despite the positive impact of incremental changes, mainly driven by logic of ecological modernisation, major transformations are still required to move forward and achieve sustainable development (Grin et al. 2010). In pursuing this goal, there is an emergent agreement that sustainability entrepreneurs are to be considered as the engine in this process of change and key actors in creating sustainable growth and wealth, thus in achieving sustainable development (Cohen et al. 2007; Dean et al. 2007; Gibbs 2009; Tilley et al. 2009b; Hall et al. 2010; Patzelt et al. 2010). Sustainability entrepreneurship (SE) seems to bring into being a new approach that resolves the dualistic divide between business ventures and altruistic endeavours (Parrish, 2007) in favour of a new logic based on the creation of present value for the economy, society and the environment while contributing to the well being of future generations.

Aside from its aspirational appeal, there remains a lack of understanding of the nature of SE and how it may unfold (Hall et al. 2010). The challenges of sustainability have been tackled in various other fields, from environmental economics to new institutional theory (Cohen et al. 2007; Dean et al. 2007; Pacheco et al. 2010) but with disparate results; these studies remain prescriptive and unconnected (Hall et al. 2010). To fill this gap and bring theoretical coherence to this research topic, scholars emphasise the need for boundaries definition (Shepherd et al. 2011), greater ties between theoretical fields (Hall et al. 2010)

and further efforts to elaborate the logic of SE beyond financial performance and corporate greening (Cohen et al. 2007; 2008).

This paper seeks to address some of these unresolved issues by developing a conceptual framework aimed at mapping out the research field of SE while at the same time adhering to empirical relevance. It draws upon literature on entrepreneurship and sustainable development and proposes three avenues for further research: theoretical and empirical definition of sustainability-driven entrepreneurs; the development process of entrepreneurial opportunities in SE; and the interaction between institutions and sustainability entrepreneurship. Aside from the importance of critically analysing the possibilities and limits of SE (Hall et al. 2010), focusing on these avenues helps visualise and analyse currently disparate conditions, features, and outcomes of SE. In this regard, within each avenue, the paper poses relevant research questions that are of both descriptive and explanatory nature, and aim to bring closer the conceptual and empirical aspects of SE.

The contribution of the paper to current research on SE lies in providing conceptual framing for the field of study and offering guidelines for increasing the intensity and quality of future theoretical and empirical work. It not only provides background for improved understanding of sustainability entrepreneurship as a research field, but also offers new insights for advancing the study of the complexities of the entrepreneurial act.

2. The distinctive importance of sustainability entrepreneurship

The concept of sustainable development has become of major relevance in management literature and business education (Hall et al. 2010). It has crossed the boundaries of corporate social responsibility towards new perspectives that stress the necessity of a more holistic approach to entrepreneurial value creation. For this emerging scholarly field to take strong roots, its research questions need to be situated in a concrete framework to visualise the specific conditions, features, and outcomes that account for sustainability entrepreneurship, and its distinctive importance within entrepreneurship research needs to be well established. In this regard, following Venkataraman (1997), two questions need to be addressed: what exactly is the subject matter of sustainability entrepreneurship?, and what is the distinctive contribution of this field to a broader understanding of business enterprise?

Given the E in SE, there are natural roots in entrepreneurship research. However, the entrepreneurship literature has so far been unable to capture or explain, both at conceptual and empirical levels, the logic of creating present value for the economy, society and the environment while contributing to the well being of future generations. Even though traditional definitions of entrepreneurship (e.g. Venkataraman, 2007) do consider the impact of the entrepreneurial activity, SE appears to refer to a new logic in the process of opportunity development, through which three different outcomes are simultaneously pursued, i.e. social sustainability, environmental sustainability and economic sustainability.

Indeed, Dean and McMullen (2007:58) define “sustainable entrepreneurship as the process of discovering, evaluating, and exploiting economic opportunities that are present in market failures, which detract from sustainability, including those that are environmentally relevant”. Similarly, Hockertz and Wüstenhagen (2010:482), define it as “the discovery and exploitation of economic opportunities through the generation of market disequilibria that initiate the transformation of a sector towards an environmentally and socially more sustainable state”. More recently Shepherd and Patzelt (2011:137) offer the following definition: “sustainable entrepreneurship is focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society”.

What is missing in the above definitions is an overarching goal or logic based on which economic, social, and environmental sustainability can be put under one mantra. Accordingly, and drawing upon Shane et al. (2000) and The Brundtland Report (1987), we propose that SE is “the scholarly examination of how and by whom opportunities to create future goods and services are recognised, evaluated, and exploited, while improving the development of society, the economy and the environment, allowing future generations to meet their own needs”. This definition establishes not only the different dimensions along which development is to be directed, but also an overarching concern with the fate of future generations.

To make the argument that SE is to be considered on its own merits as an important field within entrepreneurship research, we need to refute the intuitive counterfactual argument that SE is simply a particular form of entrepreneurship. In other words, if one could argue that any SE activity meets the broader definition of entrepreneurial activity, then SE is simply a subset of entrepreneurship. If on the other hand, we could show that SE activities would not necessarily qualify as entrepreneurial activities if judged on economic merits alone, then a case can be made for SE as important enough for requiring especial scholarly attention. In the exposition of our argument, we will use the illustrative case of British entrepreneur Arthur Potts Dawson and its new venture The People's Supermarket, where he aims to *create a commercially sustainable, social enterprise that achieves its growth and profitability targets whilst operating within values based on community development and cohesion*. The People's Supermarket is not only about social and environmental entrepreneurship, whereby only social and environmental objectives are to be pursued; nor is it only about economic entrepreneurship, although it strives for obtaining economic profit. Potts's approach combines all components of sustainable development equally, holistically and integrally (Tilley et al. 2009b), which means that this kind of entrepreneurial activity is about simultaneously achieving the three objectives, and committing to securing the economic welfare and social well being of future generations, and ensuring a long-term sustainability of the environment (Young et al. 2006).

Let's consider what it means to be pursuing the social and environmental objectives concurrent with pursuing economic viability. At any decision point, there is a compelling argument that can be made about possibilities to strengthen the economic bottom line through the logic of economy of scale or scope and based on maximising sales per square meter of retail space. Shunning this logic means being subject on high opportunity costs based on economic logic alone. Arguably, no entrepreneur operating on economic principles alone would settle for the operational and value chain configuration selected by Potts in the name of serving the community and the environment. In other words, this particular form of business activity would not exist under a logic that defines opportunities as the situations in which revenues simply exceed costs.

In doing so, this approach encompasses all three kinds of entrepreneurial activity simultaneously including the preservation of the well being of future generations; this without a doubt expands the prevailing entrepreneurial logic. Given this particular complexity and the practical relevance of SE in improving the development of society, the economy and the environment, it seems appropriate to think of sustainability entrepreneurship beyond any possible reductionist view. Its merits require particular attention within entrepreneurship research, which calls an appropriate theoretical and methodological definition.

3. Three avenues for empirical study of sustainability entrepreneurship

Although we agree with Sherperd et al. (2011) in terms of the relevance of scholarly diversity within boundaries of SE, we emphasise the need of a more concrete approach for conducting sustainability entrepreneurship research. In doing so, and alongside the argument for its distinctive importance, we propose mapping out initial boundaries around three basic elements: person, process and context, leading to three building blocks upon which future research might focus its attention, i.e. (1) theoretical and empirical definition of sustainability-driven entrepreneurs; (2) the development process of entrepreneurial opportunities in SE; and (3) the interaction between institutions and SE. Each dimension is explained and discussed in the following sections.

3.1 Theoretical and empirical definition of sustainability-driven entrepreneurs

Studying sustainability entrepreneurs requires the development of operational definitions that not only define proper sampling frames but also capture the conceptual richness of these actors. While descriptions of such entrepreneurs have involved various characteristics such as motivation (Schlange, 2006), knowledge (Patzelt et al. 2010), entrepreneurial orientation (Kuckertz et al. 2010), cognition (Schlange, 2009) and ways of understanding and organising their new ventures (Parrish, 2010), none of these are by themselves distinguishing features of sustainable entrepreneurs.

At this point, the questions to be answered are how might we recognise sustainability entrepreneurs within a group of entrepreneurs and why do they behave in a particular way; when their degree of membership in the conceptual category “sustainable entrepreneur” depends not only on one single feature, i.e. an overall commitment to sustainability issues; but rather a complex set of conditions. Without having a clear idea of what defines sustainability entrepreneurs and to what extent do they differ from traditional entrepreneurs, establishing a reliable sampling frame becomes difficult to achieve. Therefore, operational definitions need to be developed in ways that reflect the complex constellation of characteristics and conditions. This requires on the one hand going beyond conventional linear models towards set theoretic representations that focus on the degree of membership in a theoretically defined group, and on the other hand developing and calibrating a measurement tool for judging membership and not membership in the group of sustainability entrepreneurs.

Although there exist differences among entrepreneurs in terms of entrepreneurial mindset, values and orientation; developing a convention for whether a person can be deemed to be a sustainability entrepreneur requires more precise analysis based on the calibration and intersection of a number of heterogeneous conditions that current research attaches to SE. Such analysis requires departure from traditional measures based on a linear modelling logic - which cannot incorporate the logic of necessary and sufficient conditions inherent in complex relationships - and encourage the use of alternative techniques such as fuzzy set theory and analysis. The latter, unlike mainstream statistical tools, offer a middle path between quantitative and qualitative measurement, through which is possible to capture the complexity of the associated causal relationships, enabling the researcher to judge the degree of membership in a conceptual category of interest (Ragin, 2008).

The precision of a membership definition depends on its infusion and support by theoretical and substantive knowledge of relevant criteria (Ragin et al. 2005). In this regard, the model of SE proposed by Young and Tilley (2006) offers distinctive criteria for measuring membership in the conceptual category of sustainability entrepreneurs. Drawing upon McDonough and Braungart (2002) triple bottom line model and Dyllick and Hockerts model (2002) of corporate sustainability, the authors offer twelve elements (Table 1) that emerge from combining the three dimensions of entrepreneurship (economic, social and environmental) with a higher plane of sustainability entrepreneurship in a two-way relationship.

Table 1. Distinctive criteria for measuring membership in the group of sustainability entrepreneurs

Economic conditions and sustainability entrepreneurship	Social conditions and sustainability entrepreneurship	Environmental conditions and sustainability entrepreneurship
Economic equity	Social responsibility	Environmental stability
Inter-generational equity	Futurity	Environmental sustainability
Eco-efficiency	Sufficiency	Ecological equity
Socio-efficiency	Socio-effectiveness	Eco-effectiveness

Although each of these criteria can be useful for conceptually describing a sustainability entrepreneur, it is not clear how they can play out in substantive, empirical terms. Hence, the theoretical and empirical definition of sustainability entrepreneurs, and the subsequent explanation of their behaviour, will depend on the researcher's ability to develop appropriate measurement techniques, aimed at drawing a line between SE and any other form of entrepreneurship. This entails not only identifying the combinations of criteria that differentiate sustainability entrepreneurs from other entrepreneurs but also determining whether the criteria themselves can be differentiated in empirical terms.

In understanding the theoretical and empirical definition of sustainability entrepreneurs, we offer four relevant research questions around which further studies can be conducted.

- How can sustainability entrepreneurs be empirically recognised?
- What sets of conditions account for the existence of sustainability entrepreneurs?
- Why sustainability entrepreneurs behave the way they do, combining all three kinds of

entrepreneurial activity in one single venture?

- To what extent sustainability entrepreneurs differ from traditional entrepreneurs?

3.2 The development process of entrepreneurial opportunities in SE

A key element in describing entrepreneurial action is to understand the process through which entrepreneurs recognise, evaluate and exploit venture opportunities. Despite the advances in the field of entrepreneurship research, current explanations of opportunity recognition based on entrepreneurial knowledge and economic motivation, are insufficient for modelling the recognition of opportunities for sustainable development. Patzelt et al. (2010) suggest that the recognition of sustainable development opportunities is perhaps more complex than the recognition of such opportunities motivated solely by economic gain for the entrepreneur.

Although some authors have provided useful insights into the entrepreneurial process driven by sustainability issues (Choi et al. 2008), we still lack empirical examination and evidence of how this process will actually unfolds (Hall et al. 2010). Part of the difficulty in bringing the conceptual and empirical representations of the process closer lies in the inoperability of existing conceptual models for understanding individual cases. Thus, while it is conceptually elegant and appealing to emphasise the objective nature of opportunities (Shane et al. 2000; Eckhardt et al. 2003), it has been argued that an entrepreneurial opportunity is something that “prospectively can only be discussed as a speculative idea and that can be fully articulated and explained only retrospectively” (Dimov, 2010:60).

Although opportunities can be an unit of analysis in their own right, as exemplified by conceptual discussion of the nature and types of opportunity (Eckhardt et al. 2003), and although some of the associated environmental factors can be seen as a source of sustainability-driven venture opportunities (Cohen et al. 2007; Dean et al. 2007), such conceptions offer little in terms of understanding how individual entrepreneurs recognise, develop, and exploit such opportunities.

In explaining the process of opportunity development, Dimov (2010) proposes to go beyond the traditional focus of causal explanations i.e. the immediate trigger or efficient cause, and incorporates into the explanatory body of entrepreneurial action a more complex set of possible causes: material, final and formal. Accordingly, in the context of sustainable development, the meaningful question is not what differential conditions precede a sustainability entrepreneurial action, but why this action occurs the way it does. Therefore, in explaining the process of development of sustainability-oriented venture opportunities, it is not about asking why SE is different than traditional entrepreneurship, as any likely response implies using tautological arguments, but about enquiring why the process of recognition and development of opportunities for sustainable development occurs the way it does.

To make entrepreneurial opportunities empirically tractable, it is necessary to divide the process of opportunity development into distinctive units of observation, as suggested by Dimov (2011) and summarised in Table 3 below. Each of these units represents a fertile ground for empirical examination in that it allows us to introduce more refined and focused research questions which in turn can help gather more substantive empirical evidence.

Table 2. Operationalisation of the opportunity development process in SE

Units of observation	Empirical evidence
Opportunities recognition	Actions, events and circumstances that precedes the recognition of sustainability-oriented venture ideas
Entrepreneurial action	Relationship between immediate goals and set of actions, which explains how a sustainability-oriented venture idea gets elaborated in actionable terms
Interaction with market structures	Entrepreneurial statement position whereby the relationship between sustainability entrepreneurs and exchange partners is formed

In understanding the development process of venture opportunity in SE, we offer six relevant research questions around which further studies can be conducted.

- How do opportunities for sustainability entrepreneurship develop?
- Why does the process of recognition of opportunities for sustainable development unfold the way it does?
- Why does sustainability-oriented entrepreneurial action occur the way it does?
- Why does the process through which sustainability entrepreneurs interact with market structures unfold the way it does?
- What are the causes behind the recognition of opportunities, entrepreneurial action and interaction with market structures in SE?
- What are the main differences in how this process unfolds in traditional entrepreneurship compared to sustainability entrepreneurship?

3.3 The interaction between institutions and sustainability entrepreneurship

Baumol's (1990) argument that the productive vs. unproductive nature of entrepreneurship reflects the prevailing rules of the game is of key relevance in analysing SE, as the latter requires major changes in prevailing institutional arrangements. Meek et al. (2010) and O'Neill et al. (2009) support this institutional approach in analysing the role of social and cultural factors in sustainability entrepreneurship. The former empirically demonstrate how policy and social norms, i.e. incentives, consumption patterns, norms of conformity and of family interdependence, play an integral role in the creation of environmentally responsible economic activity. The latter stress the relevance of cultural settings in generating entrepreneurial value beyond profit and market penetration.

Thus, only appropriate conditions may lead to producing social, environmental and economic wealth; unfortunately, the extant market incentives compel entrepreneurs to environmentally degrading behaviours (Pacheco et al. 2010). In other words, if the appropriate conditions do not prevail, social, environmental and economic wealth will not be produced, and entrepreneurs could end up creating unproductive or destructive forms of entrepreneurship (Harbi et al. 2010). The question then is how and by whom the rules of the game towards a more sustainable society will be changed, when the entrepreneurial activity depends to a great extent on the reward structure of the economy.

Alongside changes in technologies, key drivers in producing the required transformations for sustainable development are both the process of institutionalisation of new meaning systems, symbolic elements and behavioural patterns within extant markets, and the actors that lead such process of change. Therefore, central to understanding the implications of the presence of sustainability entrepreneurs in competitive markets is the study of the dynamic relationship between changes in institutional rules and their catalytic role (Parrish et al. 2009) in producing these changes.

In this initial stage, sustainability entrepreneurs emerge simultaneously as institutional entrepreneurs. By means of discourse building, mobilising allies, creating networks and legitimising new concepts (DiMaggio, 1988) they act as "catalysts for structural change and take the lead in being the impetus for, and giving direction to, change" (Leca et al. 2008:3). As Pacheco et al. (2010) argue, sustainability entrepreneurs have the agency to develop the necessary institutions, i.e. new sets of cognitive, normative and regulative rules, that enable the exploitation of sustainability-driven venture opportunities. This implies the expansion of the concept of SE, from recognition and development of venture opportunities in extant economic structures to the creation of new institutional structures - e.g. norms, property rights, economic incentives and government legislation - that improve the competitiveness of sustainable behaviours. Accordingly, throughout the creation of sustainability-oriented new ventures and their entrepreneurial position statements, sustainability entrepreneurs create not only positive solutions, but also redefine the professional knowledge and develop new standards and formal rules that delineate the playing field (Hwang et al. 2005), prompting changes in current institutional logic.

Even though it might be argued that, due to its innovative nature, any kind of entrepreneurial action have an effect on institutional arrangements playing thus a catalytic role; entrepreneurship in its traditional form, acts upon extant economic structures and market incentives, reproducing the current institutional logic. Relevant to the field therefore is analysing, on the one hand, the contextual variables affecting sustainability entrepreneurship, i.e. the role of institutional factors in acting as structural enablers and barriers. And on the other hand, the capability and potential contribution of sustainability entrepreneurs towards modifying the dynamics and developmental trajectory of a competitive market by means of producing changes to current institutional structures, i.e. meaning systems, symbolic elements and behavioural patterns. This means incorporating the insights and methods of both theoretical approaches new institutionalism and institutional entrepreneurship, systematically and systemically. This requires an analysis of the processes by which structures, i.e. schemas, rules, norms, and routines, become established as authoritative guidelines for social behaviour (Scott, 2008), and of how actors can contribute to changing institutional rules despite pressures towards stabilisation (Batillana et al. 2009).

In understanding the interaction between institutions and SE, we offer four relevant research questions around which further studies can be conducted.

- What is the role of institutions in recognising and developing sustainability-driven venture opportunities?
- What is the potential contribution of sustainability entrepreneurs to producing changes to current institutional logic?
- How does current institutional logic shape the behaviour of sustainability entrepreneurs?
- How might sustainability entrepreneurs change the current institutional logic towards a more sustainable society?

4. Concluding remarks

Sustainability entrepreneurship as a research field is in its beginnings and we hope that this paper will help advance its development. We aimed to provide conceptual basis for stimulating scholarly thought and improving the understanding of sustainability entrepreneurship as an important field within entrepreneurship research. The three research avenues and associated research questions offer a common platform for uniting a diverse academic community interested in a timely and important issue.

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