ADVANCING SUSTAINABLE ENTREPRENEURSHIP THROUGH SUBSTANTIVE RESEARCH

PABLO MUÑOZ
Senior Lecturer in Entrepreneurship
University of Liverpool Management School
Liverpool, UK
pmunoz@liverpool.ac.uk

Universidad del Desarrollo
School of Economics and Business
Santiago, Chile

FRANK JANSSEN
Professor
Université catholique de Louvain, Louvain School of Management,
Belgium
frank.janssen@uclouvain.be

KATERINA NICOLOPOULOU
Senior Lecturer
University of Strathclyde, Hunter Centre for Entrepreneurship
Glasgow, UK
katerina.nicolopoulou@strath.ac.uk

KAI HOCKERTS
Professor in Social Entrepreneurship
Copenhagen Business School
Copenhagen, Denmark
kho.msc@cbs.dk
ADVANCING SUSTAINABLE ENTREPRENEURSHIP THROUGH SUBSTANTIVE RESEARCH

**Purpose** – The purpose of this paper is to present an overview of the articles presented in the special issue “Advancing Sustainable Entrepreneurship Through Substantive Research”. The special issue is inspired by the need to understand determinants, processes and consequences of sustainable entrepreneurial action. It seeks to contribute to this emergent field by presenting a range of novel empirical studies and proposing avenues for future research.

**Design/methodology/approach** – The paper is based on a literature and published document review, experiential reflections and arguments.

**Findings** – Drawing on seven empirical studies and the authors’ own reflection, this paper introduces and elaborates on a three-level framework for advancing sustainable entrepreneurship through substantive research, comprising: social-ecological venture processes and activities, social-ecological venture interactions and social-ecological venture outcomes.

**Research limitations/implications** – This special issue opens new avenues for future research and brings to the fore a range of novel research questions which we hope will inspire future research in the area.

**Originality/value** – The paper presents a holistic view of current sustainable entrepreneurship research and encourages researchers to empirically explore the boundaries of the phenomenon by deeply engaging with its proximal realms, i.e. social and ecological systems.
**Sustainable Entrepreneurship Research**

Since a decade, a new topic has become popular in the broader field of entrepreneurship, i.e. sustainable entrepreneurship. This concept has attracted the attention of the political, economic and academic spheres, as well as of the press since their interest for social and environmental issues has increased in recent years (Shepherd and Patzelt 2011; Stryjan, 2006b).

A business can be profitable while having sustainable aims, like preserving the ecosystem, counteracting climate change, reducing environmental degradation and deforestation, improving farming practices and improving the environment, transporting drinking water, and/or maintaining biodiversity (Cohen and Winn 2007; Dean & McMullen 2007).

When looking at the literature, we can see that a multitude of definitions and a very varied terminology (Holt 2011) have emerged and that different terms like “ecopreneurship” (Dixon and Clifford 2007; Isaak 2002; Schaltegger 2002), "environmental entrepreneurship" (Anderson 1998, Linnanen 2002), "sustainable development entrepreneurship" (Cohen and Winn, 2007; Dean and McMullen 2007), "sustainable entrepreneurs" (Choi and Gray 2008; Tilley and Young, 2009) and "green entrepreneurship" (Schaltegger 2005). have been used interchangeably.

Sustainable entrepreneurship is linked to ecopreneurship or ecological entrepreneurship which seeks to understand how entrepreneurial action can help preserve the natural environment (Pastakia 1998; Schaper 2005). However, if ecopreneurship is part of sustainable entrepreneurship, it is not a synonym because it does not explicitly cover the sustainability of communities and the development of non-economic gains for individuals and societies (Shepherd and Patzelt 2011). It is also close to the concept of social entrepreneurship which is “the process of identifying, evaluating and exploiting opportunities aiming at social value creation by means of commercial, market-based activities and of the use of a wide range of resources” (Bacq and Janssen 2011). Research in social entrepreneurship thus covers the
development of (non-economic) gains for individuals and societies, but does not include in a sustainable way the current states of nature, sources of life support. Finally, sustainable entrepreneurship includes aspects of corporate social responsibility (CSR), which refers to actions to promote social goods, beyond the interest of the company (McWilliams and Siegel 2001). However, CSR is not necessarily linked to entrepreneurial action and innovation, but is often limited to a societal engagement of companies (consider, for example, sports club funding or donations for social organizations).

By contrast, Shepherd and Patzelt (2011) consider that some areas of research are not part of the field of sustainable entrepreneurship. Research that focuses on sustainability, without simultaneously looking at what can be developed at the economic and societal level, cannot be related to sustainable entrepreneurship research. Climate change research, for example, does not study human, economic or social development in relation to climate change. Reciprocally, research that focuses on development, without simultaneously considering sustainability, does not enter the field of sustainable entrepreneurship. By way of illustration, the authors cite research focused on child survival through the creation of a vaccine. Thirdly, research that addresses both what is sustainable and what needs to be developed but whose link between the two does not imply the discovery, creation or exploitation of future goods, processes or services cannot be considered as research in the field of sustainable development entrepreneurship. The authors could mention the efforts of governments or NGOs to improve the sustainability of biodiversity and the development of individuals through education. These are useful but are not entrepreneurial actions. Finally, entrepreneurial research which focuses solely on the economic results of entrepreneurial action and that does not simultaneously envisage sustainable development results cannot be considered as research in sustainable entrepreneurship.
According to the World Commission on Environment and Development (1987), sustainable development is the development of present needs that do not compromise the ability of future generations to meet and fill them. As a result, sustainable entrepreneurship has often been seen as the pursuit of the triple bottom line (Nicolopoulou 2014). Sustainable entrepreneurship can thus be considered as a unique perspective that combines economic, social and environmental value creation, with an overall concern for the well-being of future generations (Hockerts and Wüstenhagen 2010). Many researchers view an entrepreneurial activity as sustainable when it integrates holistic economic, social and environmental goals that persist over time (Gibbs 2009; Schlange 2009; Tilley and Young 2009). The form of wealth generation must therefore also be stable over time for an organization to be considered as a sustainable development enterprise.

For Tilley and Young (2009), sustainable entrepreneurs are real models for creating social and environmental wealth because they are able to reconcile sometimes divergent issues such as social and environmental concerns with economic objectives. Economic, environmental or social entrepreneurs can each contribute partially. However, on their own, they do not ultimately respond to all the challenges of sustainable development (Shepherd and Patzelt 2011). First, entrepreneurs and their businesses need to be financially sustainable to survive. An organization focused solely on the environment and surviving only with government subsidies or philanthropic donations cannot be considered as entrepreneurial because it is not sustainable without these sources of funding (Hall et al. 2010). Secondly, by focusing either on the environment or the social side, entrepreneurs do not always consider the impact of their activity on the other dimension. Indeed, focusing on purely environmental goals can cause social harm. Consider for example the creation of a nature reserve that can deprive a local community of a resource traditionally cultivated there. In the same way, focusing only on social aspects can lead to financial failure and environmental damage. The authors take the example of fair trade. While it can help unemployed communities out of poverty, if the organization
does not sell its products, its financial failure will lead to the end of its activity. In addition, this type of organization can be harmful to the environment because of the transportation of these goods around the world, thus contributing to climate change and to the negative impact of these production processes on the environment. Therefore, for Tilley and Young (2009), only entrepreneurs who consider these three elements can be called "sustainable entrepreneurs".

Sustainable entrepreneurship is thus a new field of research, rather than particular form of social or environmental entrepreneurship (Shepherd and Patzelt 2011). It has now turned into a more mature, legitimate sub-field of entrepreneurship, but it might also be at risk of premature technological closing, mainly with respect to the triple bottom-line (Muñoz and Cohen 2018a). Although it is central, the triple-bottom line in itself is not sufficient (Muñoz and Cohen 2018b): it needs to be linked to the recognition, evaluation and exploitation of opportunities to differ from sustainable development and to become entrepreneurial (Shepherd and Patzelt 2011), very much like in social entrepreneurship the double-bottom line is central, but where the process of identifying, evaluating and exploiting opportunities is also of paramount importance (Bacq and Janssen 2011).

This special issues thus uses Shepherd and Patzelt’s (2011) definition of sustainable entrepreneurship as activities focused on the preservation of nature, life support and community as part of pursuing perceived opportunities to create products, processes and services whose economic and non-economic gains accrue to individuals, the economy and society.

The need to understand determinants, processes and consequences of sustainable entrepreneurial action has spiked in recent years (Muñoz and Dimov 2015), mostly because the underlying logic of pursuing opportunities in the name of sustainable development challenges traditional held assumptions of entrepreneurial action. Over the past 10 years, entrepreneurship scholars have published in mainstream entrepreneurship and management journals over 80 original research articles in the area of sustainable entrepreneurship (Muñoz and Cohen 2018b).
The vast majority of the published papers are theoretical, conceptual or qualitative and most of them are based on a small selection of cases. In addition, the relationship between sustainability and entrepreneurship has been more prescriptive than descriptive and, often, overly optimistic (Hall et al. 2010). Our faith in sustainable entrepreneurship as an engine for societal transformation has directed us to observe the phenomenon through a ‘do-good’ lens, which may blind us when it comes to analyzing causes and consequences, or in attempting to identify the nature and the stages of the sustainable entrepreneurship process.

Despite the conceptual abundance, our capability of actually explaining why and how things occur when someone pursues sustainability venture opportunities is limited. In advancing sustainable entrepreneurship research, we not only have to address issues related to boundary definition, but also further substantive work is required; one that draws on extant research and beyond, and provides a strong basis upon which we can build valid and reliable foundations for the field. This special issue seeks to contribute to this emergent field.

**Papers in this special issue**

This special issue brings together seven rigorous, relevant, and novel empirical studies that collectively address gaps in the literature at the individual, organizational and contextual levels in a range of socio-geographical contexts.

In “Opportunity Recognition in Sustainable Entrepreneurship: An Exploratory Study”, Hanohov and Baldacchino (2018) empirically explore Patzelt and Shepherd’s (2011) conceptual model. Facing the lack of actual testing of theoretical models, the authors assess whether previous knowledge of natural and communal environments, altruism – as motivation to develop gains for themselves and others- and entrepreneurial knowledge lead to the recognition of sustainability opportunities. They use a novel qualitative approach to empirical testing and conclude that indeed sustainable entrepreneurs are influenced by the
aforementioned factors, however these are insufficient for the full identification of sustainability opportunities. The findings call for a re-examination of the components underlying previous knowledge and how this knowledge is actually acquired, as well the sequential (rather than conjunctural) nature of the causal structure leading to the outcome. The paper adds to the current discussion by shedding light on the role of field experience and socialization of such experience, which collectively enhance the entrepreneurs’ knowledge of natural and communal environments and stimulate the recognition of personal circumstances in connection to natural and communal environments. Combined, these factors increase the motivation to act and the desire to become self-employed.

Also examining individual-level factors leading to sustainable entrepreneurship, “Drivers of Entrepreneurial Intentions in Sustainable Entrepreneurship” (Vuorio, Puumalainen and Fellnhofer 2018) seeks to extend the existing intention models to include work values and attitudes toward sustainability. This paper draws on a quantitative research design and an extensive data set of university students from three European countries. The authors show that attitude toward sustainability and perceived entrepreneurial desirability enhance sustainability-oriented entrepreneurial intentions. The paper adds to the current discussion by showing that when it comes to sustainability, current entrepreneurial intention models are insufficient to explain variance. Attitudes are positively impacted by altruism, while perceived desirability is driven by both intrinsic and extrinsic rewards. The authors call for a reconsideration of the role of the heterogeneity of entrepreneurial opportunities, and propose an extended model to capture sustainability-oriented entrepreneurial intention.

In “Understanding the Drivers of Sustainable Entrepreneurial Practices in Pakistan’s Leather Industry: A Multi-Level Approach”, Wahga, Blundel and Schaefer (2018) take us to a different socio-geographical context to explore what drives sustainable entrepreneurial practices within small firms. This paper offers a multi-level approach by combining individual drivers,
organizational practices and institutional pressures into one analytical frame. As such, it invites the readers to observe the phenomenon holistically, avoiding the shortcomings of using a piecemeal approach to predict sustainability-oriented behavior. This study uses a multiple case-study design involving 22 SMEs from the Pakistan’s leatherworking industry. This an interesting setting as the leather industry in Pakistan, while dominated by SMEs, is the third largest export-earning sector in the country. It currently faces major environmental and social challenges, however lacking institutional support. The paper identifies a range of macro, meso and micro level factors driving leatherworking SMEs to adopt environmental practices. More specifically, it shows how place-specific coercive, normative and mimetic isomorphic pressures simultaneously drive sustainable entrepreneurial activity in Pakistani SMEs, despite the absence of formal institutional mechanisms. Most notably, it shows how those factors interact with the values of SME owners and managers, prompting the adoption of particular pro-environmental practices that also lead to commercial benefits.

“Regulatory Focus Theory and Sustainable Entrepreneurship” (Fischer, Mauer and Brettel 2018) offers a novel view of sustainable entrepreneurship cognition. By means of two-stage qualitative study, the authors discover cognitive changes during the entrepreneurial process, particularly in two self-regulatory systems, i.e. promotion focus and prevention focus. The paper shows how the self-regulatory focus of sustainable entrepreneurs changes during the process in terms of the temporal dynamics of motivation. In doing so, it offers a more refined understanding of the role that motivation plays in early stages of development compared to later stages. Against our intuition, social or ecological problems, which trigger the development of venture ideas in early stages, become less relevant as the entrepreneurs enter into later stages of the venture development process. This means that the goals of sustainable entrepreneurs, which are linked to the intention of solving social and/or ecological problems, do not remain stable over time.
In “Exploring Strategic Agency in Sustainability-oriented Entrepreneur Legitimation” Reynolds, Sheehan and Hilliard (2018) explore the role played by three archetypal constructs in legitimation behavior of sustainable entrepreneurs and explore the strategic utility of these constructs in gaining or maintaining legitimacy. The authors employ a multiple case study design involving ten sustainable entrepreneurs from Ireland. While the authors conclude that all three constructs - prior knowledge, sustainability orientation and sustainability intention – contribute to gaining and maintaining legitimacy, they do so to differing extents and that the three factors are interdependent when their strategic use is analyzed. This paper contributes to the discussion by bringing to light the strategic role of individual-level factors in the entrepreneurs’ legitimacy behavior. This is central given the relevance of legitimation in the early venturing stages and the over-emphasis on structural explanations when it comes to organizational field behavior.

“Green start-up finance – where do particular challenges lie?” (Bergset, 2018) offers a relevant, yet so-far neglected, area in sustainable entrepreneurship research, i.e. entrepreneurial finance of green start-ups, with a particular focus on the specific challenges of sustainable entrepreneurs and their ventures experience when it comes to accessing financial resources. The manuscript draws on a large data set of sustainable start-ups from Finland, Germany and Sweden. Under the assumption that “green products” face distinct challenges when it comes to attracting investors, this study uses a quantitative design to assess the “greenness” of the companies’ product/service portfolios in relation to funding. Interestingly, green start-ups seem to face challenges similar as traditional start-ups, raising questions regarding the actual distinctiveness of sustainable ventures at least when it comes to investment. Instead of favoring investment, their distinct aspects seem to negatively affect their chances, as investors seem to expect more from sustainable entrepreneurs, particularly in terms of human capital and of the
innovativeness of the product/services portfolio. The authors argue that these are the most critical challenges for green start-ups in accessing finance compared to other start-ups.

Finally, Gasbarro, Rizzi and Frey (2018), in “Sustainable institutional entrepreneurship in practice: insights from SMEs in the clean energy sector in Tuscany (Italy)”, take an institutional perspective to investigate how sustainable entrepreneurs address the regulative, normative and cultural-cognitive factors when operating in conservative contexts, and how their actions can eventually lead to institutional change. The authors conduct an exploratory study in a unique empirical setting, namely: the Tuscan geothermal heat pumps market. In the authors’ view this Italian industry presents a promising yet still unexploited sustainability potential, despite its low institutional support. The findings bring to light the joint role of institutional entrepreneurship and business model innovation in legitimacy building and institutional change, which in turn is reinforced by customers and strategic partnerships. Although the relationship between sustainable and institutional entrepreneurship has been conceptually explored in previous research, this is one of the first studies empirically examining whether and how such relationship exists, providing therefore unique empirical evidence on how sustainable entrepreneurs (can) foster changes in non-conducive institutional environments.

**Moving the field forward**

The findings presented by the authors in this special issue offer us the opportunity to establish a robust empirical basis that contributes to developing this relevant and timely sub-domain. As a whole, the papers enable the development of new research platform upon which we can further advance our substantive knowledge of sustainable entrepreneurship. In doing so, it opens new avenues for future research and brings to the fore a range of novel research questions which we hope it will inspire future research in the area.
In order to move the research forward, the authors stress the need of empirically exploring the conceptual boundaries of the phenomenon and engage deeply with its proximal realms, namely social and ecological systems. To do it adequately, we argue that this needs to done in consideration of the iterative nature of both systems, placing the venture not simply as a value-creator artefact but rather as a component within these systems.

Future empirical studies can explore social-ecological venture processes and activities. This can be done by capturing how the venturing process works in connection to social and ecological systems or the role some critical (yet unexplored) components may play in bringing the entrepreneurial process closer to or further away from both systems. Exploring time and timing is central in our efforts to further understand intertemporal tensions in business sustainability (Slawinski and Bansal 2015) and action sequences and timing in sustainable entrepreneurship more specifically (Conger et al. 2018; Muñoz et al. 2018). We query, for example, how does the process of developing entrepreneurial opportunities (and the theories thereof) look like when this is seen through a temporal-timing lens beyond chronology?. Muñoz and Cohen (2017) recently introduced the notion of venture synchronicity as a degree of interconnectedness between the venture and its surrounding contexts, yet much remain unexplored. For example, how do (or perhaps more importantly, can) purposeful sequencing bridge the timing of the venture with the timing of social and ecological cycles?. Is there an ideal venture development pace?. If so, what are the velocity thresholds that would give the venture an “optimal” sustainability?

Literature on sustainable business models (Schaltegger et al. 2016), practices (Sharma et al. 2018) and sustainable investment (Brest and Born 2013) has grown in recent years, yet much more can be done. First and foremost, what business models are capable of enabling the venture to deeply interact with social and ecological systems? To what extent can we rely on dominant business modeling artifacts (e.g. business model canvas or lean start-up) and evolutions thereof
(e.g. flourishing canvas or social canvas) to further advance the practice of sustainable entrepreneurship? What are limitations of such practice? How do (can) entrepreneurs (better) capture system dynamics while developing their business models?

Sustainable business models give sustainable enterprises a roadmap for the pursuit of social and environmental impacts. Yet these can only materialize through practices capable of producing environmental and social benefit. We argue that practice in sustainable entrepreneurship is also a neglected area of study. Sustainable venturing practices are not only imaginative, as they mobilize new social imaginaries (Dey and Mason 2018), but also malleable since they change over time to optimize the social and/or environmental impact of the venture (Sharma et al. 2018). Because sustainable ventures normally operate in non-conducive environments (Pacheco et al. 2010), they tend to mobilize practices that positively deviate from the norm (Grimes et al. 2018). We wonder what those (positively deviant) practices enabling sustainability look like. How do those (positively deviant) practices become legitimate or survive as illegitimate practices? What are the institutional constraints and enablers of such practices? What role (if any) does activism play in the mobilization of such practices (Akemu et al. 2016; Dey and Mason 2018)

In terms of sustainable investment, much can be done to further understand both sides of a sustainable investment opportunity (i.e. investment readiness and investment allocation), the relationship between them, and furthermore, between the logics of investment and the logics of nature and society. Bergset (2018), in this special issue, queries to what extent the degree of “greenness” of the venture product portfolio influence investment allocation?. In other words, what does it make a green product sustainable from an investors point of view that would warrant sustainable investment? Relatedly, other studies could explore how the capital structures of sustainable venture are created and evolve over time (Siqueira et al. 2018), what distinct types of strategies and narratives sustainable entrepreneurs use to attract different forms
of investment? (Moss et al. 2018; Muñoz and Cohen 2008c), or looking at the wider environment, how can sustainable ventures operate as a vehicle for fostering more sustainable financial markets and financial inclusivity? (George et al. 2012; Hall et al. 2012; Kimmitt and Muñoz, 2017)

Another area of research pertains broader social-ecological venture interactions. At the societal level, future research can explore how sustainable entrepreneurs interact and form partnerships with broader social groups (arguably) for the common good (Peredo et al. 2018) and furthermore examine the creation of common property as a platform for the delivery of social and environmental benefits. How these ventures, as private entities, interact with and help develop the “commons” is undoubtedly an interesting area of inquiry.

By interacting with others, sustainable ventures create new prosocial identities and categories (Conger et al. 2018). Some categories are formalized through new types of certifications (Stubbs 2017), for example B Corps, Rainforest Alliance or Fairtrade, and some remain as informal alliances operating as social movements or temporary task forces, and normally disband after achieving their objectives (Muñoz and Cohen 2016). Examining how these prosocial organizational fields emerge, grow and evolve over time is central to understanding how sustainable ventures create value beyond the boundaries of the firm, positively contributing to broader social and ecological systems.

In line with the latter, we also see opportunities for future research at the biophysical level, particularly in terms of how sustainable ventures interact and build bridges with broader ecological systems. Here, we echo Branzei et al.’s (2017) call for new research looking at how “climate smart organizations, normally neglected by mainstream management, are directly tackling the sources of climate-related problems and effectively reversing the direction of the still conflicting business-environment relationship” (p.275). Future research can explore how and why these climate-sensitive businesses articulate climate action beyond mitigation and
adaptation, i.e. emerge, organize themselves, strategize, make decisions, and create regenerative value.

Finally, we also see opportunities in the examination of social-ecological venture outcomes. It has been argued that sustainable ventures are distinct as they seek to create net positive impacts on individuals in local, regional and or global communities (Cohen et al. 2008) and broader ecological environments (Gibbs 2009). Future research can explore frameworks and models whereby sustainable ventures generate and deliver net positive impacts, and moreover how these firms amplify the positive impact they create in the communities where they operate. Hollensbe et al. (2011) argue that purpose is what gives organizations a vehicle for impact amplification since it reflects the best of what a business can be. How ventures organize and evolve around purpose to create and deliver net positive impacts is an area that requires further attention. Building on the notion of social-ecological venture outcomes, net positive impacts can be seen through the lenses of social change (Belz and Binder 2017; Stephan et al. 2016) and ecological regeneration (Branzei et al. 2017). Echoing Hoffman et al. (2012), future research can explore sustainable venturing as a driver of social change in two empirical levels: firm and institutions. New studies can explore how the solutions (products/services) developed and promoted by sustainable ventures contribute directly to improving the well-being of social groups and changing the behavior of markets, competitors and industries.

In terms of ecological regeneration, we return to our previous suggestions around studying the life of the venture in connection to ecological cycles and biophysical spaces. We speculate how do regenerative organizations build bridges and/or synchronize their activities with the natural rhythm of broader ecological systems? More specifically, future studies can also explore the distinct mechanisms or business models that enable regenerative venturing, the ways in which these solutions be scaled up to create the much needed transformational change and whether and how these ventures can enable or foster resilience of ecological systems.
Making sense and measuring transformational change, however, are challenging tasks for practice and research due to “non-quantifiability, multi-causality, temporal dimensions, and perceptive differences of the (social and environmental) impact created” (Austin et al. 2006:3). While challenging, this opens up avenues for future research around impact measurement and accountability (André et al. 2018; Molecke and Pinkse, 2017; Rawhouser et al. 2017).

Figure 1 summarizes the social-ecological-venture connections requiring further attention.

Figure 1. Future research areas within social-ecological systems

More than a decade has passed since the publication of the first two papers proposing a theory of sustainable entrepreneurship (Cohen and Winn 2007; Dean and McMullen 2007). We feel that sustainable entrepreneurship as a field of research in its adolescence with many challenges and opportunities ahead. It is our hope that this special issue will fulfil its promise as an empirical basis for further development of the field.

Acknowledgement: We thank the many authors who submitted their articles to this special issue and the many reviewers who offered critical feedback in shaping the special issue throughout the process. A special thanks to Paul Jones, editor in chief, for his continuous support throughout the development of this special issue.
References


World Commission on Environment and Development (1987), From One Earth to One World: An Overview, Oxford University Press.

*Papers in this special issue.