

Sustainability-oriented startups: A microfoundational perspective on the individual-venture-ecosystem nexus

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Summary

This study aims to analyse, based on a microfoundational perspective, the micro-dynamics of startup founders, the strategic decisions on their ventures, and the way they perceive that the regional entrepreneurial ecosystem and framework conditions drive or hinder the sustainability orientation of their startups. We have conducted nine interviews with startup founders from Spain, Finland, Mexico, and Colombia. With this study, we aim to show empirical evidence about the underlying factors of startup founders (within-case analyses)

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and the similarities and differences (cross-case comparisons) in the sustainability orientation of startups from different contextual settings.

Keywords: sustainable entrepreneurship; entrepreneurial ecosystem; sustainable business; microfoundations.

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PROBLEM STATEMENT

Studies in the field of innovation generally have considered that more innovation is associated with more growth for firms and the economic system (Biggi & Giuliani, 2021). However, innovation does not necessarily lead to societal progress and better quality of life (Kimpimäki et al., 2022). Instead, innovation can also induce the development of industrial activities such as the exploitation of fossil fuels, industrial chemicals, and the massive production of non-recyclable waste, which can have adverse consequences for the environment, the economic system, and society (Biggi & Giuliani, 2021).

However, as claimed by Chapman & Hottenrott (2022), until now, the research on how businesses can move toward more sustainable business models has been focused on established organisations, and less attention has been paid to innovative startups and their founders. As claimed by Audretsch et al. (2020), innovative startups can be both a form of entrepreneurship and a mechanism to develop innovations. However, the public policy generally has been focused on promoting the birth of as many startups as possible without giving much attention to their quality and societal impact (Audretsch et al., 2020). That can result in public policies for innovation that do not necessarily contribute to the welfare of society (Audretsch et al., 2020).

In that sense, the primary purpose of this study is to examine, based on a microfoundational perspective, the micro-dynamics of sustainable entrepreneurship, analysing founders' individual attributes, the strategic decisions on their ventures, and the way they perceive that the regional entrepreneurial ecosystem and framework conditions drive or hinder the

sustainability orientation of their startups, in order to gain an insiders' perspective on how startup founders enact, perceive, experience and explain the process of creating and managing a sustainability-driven startup.

LITERATURE BACKGROUND

Sustainable venturing

Sustainable venturing is a field of study with different but interrelated research streams, such as social entrepreneurship, environmental entrepreneurship, and sustainable entrepreneurship (Johnson & Schaltegger, 2020). Under the label of Entrepreneurship for Sustainable Development (ESD), and using a multilevel causal mechanism framework, Johnson & Schaltegger (2020) define this phenomenon as “the discovery, creation, and exploitation of opportunities for (future) goods and services that simultaneously sustain the natural and social environment and provide economic and non-economic gain for others” (p.1-2).

Sustainable venturing at the individual level (founder)

At this level, the unit of analysis is the founder, that is, the person who creates the venture and facilitates its emergence (Shepherd et al., 2021). Even in team-founded ventures, there is always a so-called lead founder, who is the founding member with the most responsibility for managing the startup (Shepherd et al., 2021). The interest in the individual aspects of sustainable venturing lies in the fact that the literature has pointed out that “founders are heterogeneous in experiences, employment position, entrepreneurial imaginativeness, motivation and identity, affective responses, and enduring characteristics. These varying founder attributes affect new-venture creation” (Shepherd et al., 2021).

Argade et al. (2021), for example, suggest that to understand the dynamic perspective of sustainable entrepreneurship further, researchers need to consider the motivations, individual's values, beliefs, attitudes, past experiences, and even the relationship that the individual has with the environment in which he or she is immersed (Argade et al., 2021), as well as the sense of connection of the founder with the natural world (Karami & Gorzynski, 2022). For instance, Chapman & Hottenrott (2022) found that personality traits of the founder, such as conscientiousness and agreeableness, affect the environmental impact of their firms, as evidence was found that those traits facilitate the development of green products in their ventures, as well as the introduction of green process innovations.

According to Lubberink et al. (2019), sustainable venturing is a phenomenon that emerges mainly from the founder's pro-social motivations and the sense of responsibility towards society. Therefore, founders reflect their values and beliefs in the persistence to prioritise societal impact over personal benefit, which leads them to confront commercial and social impact logic simultaneously. Lubberink et al. (2019), suggest that entrepreneurs oriented towards collective benefit, despite facing some challenging and overlapping rationalities, manage to remain loyal to their values and beliefs. This persistence is extremely important because founders often transmit and anchor their beliefs and values to the mission of their ventures (Lubberink et al., 2019).

Wagenschwanz & Grimes (2021) claim that in general, founders tend to establish strong connections with their ventures, but in the case of sustainable entrepreneurs, the founder-

venture connection appears to be much stronger. To examine the meaning of that connection, it is necessary to determine how founders represent who they are, who they want to be, how they identify themselves with their ventures, and whether or not they infuse their values into their business (Wagenschwanz & Grimes, 2021). The relevance of the founder-venture connection has been highlighted as a key determinant for the success of new ventures, as entrepreneurial persistence can be challenged by how connected the founder feels to the new venture. Gregori et al. (2021) highlight that in the case of environmental entrepreneurs, the main motivation lies in the desire to protect nature and achieve environmental justice, thereby transmitting their ecological values through the new venture.

Sustainable venturing at the organisational level (business model and strategy)

In this level, the venture is the primary unit of analysis, with a focus on the configuration of a particular strategic setup and direction, in which the new venture's business model (BM) is a key element (Shepherd et al., 2021). This level of analysis is related to what (Johnson & Schaltegger, 2020) call "cultivating sustainability-oriented ventures". It involves the analysis of venture development, i.e. how the business model is configured, the steps toward sustainability-oriented innovation, whether the business model changes over time and why that happens, how the new venture is developed with sustainability values at the core, or the tensions of balancing social, environmental and commercial logics (Johnson & Schaltegger, 2020).

Although there is a fine line between strategy and business models (Asemokha, 2021), we adhere to the literature consisting of that business models serve as frameworks for the

implementation of business strategies and that the two are mutually reinforcing (Asemokha, 2021). Within this field of study, a topic that is capturing the attention of entrepreneurs and business researchers alike is the process of pivoting. The interest in pivoting as a central concern in the business model of a new venture is based on the assumption that business models are dynamic and can change over time (Asemokha, 2021).

However, there is a crucial discussion about the difference between strategic change and pivoting. According to Asemokha (2021) BM change can be defined “as an intentional (calculated or proactive) modification or an unintentional (spontaneous or reactive) modification made to a new or existing BM of a firm” (p.45). Some external factors generating a business model change are related to technological revolutions, opportunities or threats, competitive environments, and consumer preferences, while internal factors consist of business model innovation to achieve differentiation, disruption, or to gain space in the market. Intentional changes generally are internally motivated and driven toward an specific outcome while unintentional changes are externally driven and may be spontaneous or unintentional (Asemokha, 2021).

Pivoting, on the other hand, is associated with “a major change in a venture idea, involving changes in technologies, offerings or relationships with customers and partners, such that some of these elements remain whereas others are discontinued or replaced” (Berends et al., 2021, p. 3). For example, in their study, Sadeghiani et al. (2021) considered a strategic change as a pivot if there is a substantial change in at least one of the nine boxes of the business model. Pivoting, as a concept, was introduced by Ries (2011) as “a structured course

correction designed to test a new fundamental hypothesis about the product, strategy, and engine of growth” (p.147). Based on the literature on strategic change, Kirtley (2020) defines a pivot as “a change in a firm's strategy that reorients the firm's strategic direction through a reallocation or restructuring of activities, resources and attention” (p.3).

Sadeghiani et al. (2021) identified at least three ways pivoting has been conceptualised. The first is the business model innovation lens, which approaches pivoting as a fine-tuning of the business model in the early stages, characterised by being very rapid and slight but different from a strategic change. Pivoting has also been a phenomenon of interest to the field of organisational learning, from which it is conceived as a major change in the value proposition or target customers. The third research stream is situated in the field of organisational identity, in which pivoting functions as a framework for the strategy, identity and purpose of the new venture; in this context pivoting is closely related to entrepreneurs' identity (Sadeghiani et al., 2021).

Given that much of the research in the field of strategy has focused on how established and mature firms develop strategic change in response to external environment or competitive stimuli, Kirtley (Kirtley, 2020) claims for more research aimed to break down business strategy in the early stages of the new venture. Hampel et al. (2020) state that new ventures may pivot at a very early stage, when the founder only has the idea and is trying to refine it, while others may pivot at a later stage, when they have retained their initial focus for months or years and when they even have a significant stakeholder base. Hence the importance of

analysing when and why pivots occur in new ventures and how they manage relationships with existing stakeholders while pivoting (Hampel et al., 2020).

In the same vein, according to Voegtlin et al. (2022), the literature on open innovation and entrepreneurship can provide a framework for understanding how the integration of external actors, such as end users or customers, can contribute to the success of the innovation and the business model of the new venture. The inclusion of external actors as early as possible helps to understand the needs of the new venture. The integration of feedback from the interaction with stakeholders also allows the original venture idea to be refined and consolidated by suggesting new possibilities.

Pivoting can translate into a dilemma for the new venture in the sense that the venture needs to change radically to reach new audiences while running the risk of alienating stakeholders who identified with the initial business model (Hampel et al., 2020). Berends et al. (2021) state that new ventures may decide to keep the original venture idea (perseverance), to maintain legitimacy in the eyes of their stakeholders or pivot to face a context marked by risk and uncertainty, which leads them to face tensions arising from the choice between continuing or changing.

In addition to the tensions arising from pivoting, another type of tension that may arise at the organisational level of analysis is related to hybridisation, that in the case of social entrepreneurship results from the rivalry between economic and social logics, or between economising and ecologising in the case of environmental entrepreneurship (Johnson &

Schaltegger, 2020). In this sense, it is critical to identify the tensions and the way in which they are managed by the founders when trying to balance profit-seeking and the creation of social and environmental impact (Johnson & Schaltegger, 2020).

Sustainable venturing at the ecosystem level

An entrepreneurial ecosystem, based on Marcon & Ribeiro (2021), consists of networked interactions between universities, incubators, accelerators and other actors beyond the supply chain network, in which startups develop their full innovation potential. Entrepreneurial ecosystems are crucial in contexts fraught with risk and uncertainty for startups. Thus, the success of startups within an EE depends on the creation of fruitful linkages with other actors and the internalisation of EE resources (Marcon & Ribeiro, 2021).

In a case study conducted in the context of Brazilian manufacturing startups, Marcon & Ribeiro (Marcon & Ribeiro, 2021) highlight that the role, importance and centrality of EE actors for the innovation process of new ventures depends on "the startup's lifecycle maturity and the resources provided by such actors".

New ventures can benefit from different EE actors in many different ways. For example, the literature on incubators and accelerators shows that those entrepreneurial support organisations can provide multiple opportunities for startups to learn from external sources of knowledge such as other startups, mentors, and a wide network that facilitate knowledge acquisition, higher valuation and likelihood of obtaining funding, as well as better innovation performance (Del Sarto et al., 2021; van Rijnsoever, 2022). Other essential actors in the

entrepreneurial ecosystem are research institutions, angel investors, venture capitalists, private equity firms, government, friends and family, civil society organisations, development agencies, professionals, intermediaries, private companies, and other startups (The International Development Innovation Alliance, 2021).

Determining the boundaries of an ecosystem is a highly complex task; although ecosystems have spatial and temporal boundaries, they are difficult to identify (Stahl, 2022). In fact, ecosystems can often include sub-ecosystems (Stahl, 2022). For example, some entrepreneurial ecosystems can be delimited by a specific activity, such as smart tourism or fintech. However, they can also be delimited by geographical boundaries that pertain to different industries (Stahl, 2022).

The literature on innovation and entrepreneurship ecosystems has highlighted for example, that the success of green startups depends on both a appropriate public and private support system (Volkman et al., 2019), which can appear in the form of clusters or sustainability valleys that provide appropriate conditions and favourable locations to foster the growth of sustainability-oriented enterprises (Johnson & Schaltegger, 2020). Furthermore, previous literature highlights that the role of sustainable startup founders within the EE has not been sufficiently addressed (Volkman et al., 2019).

For example, some entrepreneurs with high ambitions to contribute to sustainable development may find it very useful to be part of networks with entrepreneurs with a shared vision. In contrast, for others, the current set of actors and activities may be insufficient to drive their sustainable business models (Johnson & Schaltegger, 2020). For that reason, we

want to examine how entrepreneurs relate to the ecosystem and how they challenge and are challenged by the entrepreneurial ecosystem in which they are embedded.

New ventures, in addition to gaining benefits from formal and informal ties with the EE, must orchestrate the dynamics of collaboration with other players, thus becoming key players in the ecosystem. Despite the broad discussion on how startups benefit from EE, there is still a broad need to address the role of sustainable ventures within EE and how EE effectively fosters the birth and growth of innovative sustainable ventures.

METHODS

Research design

In order to address the guiding research questions of this study, a qualitative multiple-case study is being applied. Following the study of Fichter & Tiemann (2018), the selection of cases (startups' founders) is mainly based on heterogeneity. Startups from different industry sectors, stages of maturity, founder demographics (e.g., gender, age, background, and experience), and from economies with distinctive innovation performance are being included to represent different contexts settings. Nine startup founders from Spanish (4), Finland (1), Mexico (1), and Colombia (3), as well as from different sectors (e.g., biotech, health-tech, sustainable jewellery, and circular fashion), have been interviewed.

Since starting up a new venture is a process that involves different stages, for the purposes of this study we have adopted the classification proposed by Marcon & Ribeiro (Marcon &

Ribeiro, 2021), which consists of the stages of creation, development, and market. This choice is motivated by the fact that it will allow us to analyse new ventures at different stages of maturity, which will promote variability and heterogeneity among the case studies.

In the creation phase, startups propose their offer based on the perception of market opportunities, usually derived from market research. In this phase, new ventures are still validating and testing their business concept and are characterised by an informal structure (Marcon & Ribeiro, 2021). During the development phase, the new venture creates a more solid business model, usually based on a minimum viable product.

The second stage is the startup phase, where discussions about organisational structure begin (Marcon & Ribeiro, 2021). Finally, the market-related phase is described by Marcon & Ribeiro (Marcon & Ribeiro, 2021) as a stage in which the startup is focused on scaling-up the business, trying to increase sales and market share in order to provide returns to its investors. This taxonomy cannot be entirely precise, given that the new venture process is only sometimes linear due to the changes in the business model of new ventures (Marcon & Ribeiro, 2021). However, this classification can be helpful to determine how our research phenomenon varies according to the lifecycle stages of the startups included.

Source of information

In line with the suggested by Shepherd et al. (Shepherd et al., 2021), our primary source of information will be the companies' lead founders, given that individual founder attributes are determinant in the process of creating new ventures. In the case of team ventures, we will

interview the founding member most responsible for managing the start-up process (Shepherd et al., 2021).

Data collection

Data will be collected through individual in-depth interviews. We aim to develop an informal and open conversation guided by topics highlighted in the literature review. In-depth interviews will allow us to determine the participants' perspectives and why they take those perspectives. In that sense, although the topics will guide the interview, they will not be approached rigidly, since our primary purpose is to facilitate the spontaneity of the participants, so that unforeseen categories can emerge (Easterby-Smith et al., 2021). The information will be acquired by face-to-face interviews with the managers of each company; in case it is not possible to schedule a face-to-face meeting, interviews will be conducted virtually. The interviews will be recorded with the prior authorization of the participants.

We developed an interview protocol divided into three main parts. In the first section, we pose questions about participants' lived experiences, how they define themselves as founders, and how they represent their connection with their venture (Wagenschwanz & Grimes, 2021). The second part of the interview accounts for aspects related to the business model and strategy of the venture and the possible tensions derived from pivoting and hybridisation logics. The last part of the interview inquiries about the role of the ventures within the entrepreneurial ecosystem and how they benefit from the ecosystem and vice versa.

In order to gain contextual understanding of the venture and their founders, we will draw on secondary public available sources of information, such as online interviews, web reports,

magazine articles, podcasts, ventures' webpages, among others (Wagenschwanz & Grimes, 2021).

Data analysis strategy

In line with Elsahn et al. (Elsahn et al., 2020), our main intention is to explain our study phenomenon based on the analysis of similarities and differences in the sustainable venturing process in different contextual settings (i.e. where the study is taking place and who is participating in the study), trying to explore the main elements related to each level of analysis, as well as the interplay of individual, organisational, and ecosystem-level factors that shape or hinder the sustainable venturing process.

The analysis will be based on an iterative process, drawing meaning from literature, data collection, and data processing (Wagenschwanz & Grimes, 2021). It means that we will not start our research study with predefined hypotheses. We will ask a series of what, how, and why questions about our main dimensions, analysing their interrelationships, as proposed by Alam et al. (Alam et al., 2022). We will identify first and second-order codes linked to aggregate dimensions (Locke et al., 2020). First-order codes will be extracted trying to be faithful to the terms used by the respondents, assuming a broad perspective. In second-order coding, codes first-order codes will be grouped into more specific categories, according to their similarity. Those categories should suggest emerging concepts. In a third step, we will link the emerging concepts to more theoretical aggregated categories (Gioia et al., 2012).

CONTRIBUTION TO THE LITERATURE

This study arises from the recent call to conduct research that “addresses the micro-foundations of the linkages between ecosystems, entrepreneurs, and their ventures” (Roundy & Lyons, 2022). Although multi-level frameworks have recently been used to conceptually analyse the creation of startups oriented towards sustainable development (Johnson & Schaltegger, 2020), more empirical research is needed to explain that phenomenon from a micro-foundational perspective.

In that sense, in this study, we intend to explore how sustainable entrepreneurs identify themselves with the core values of their startups and whether and how they establish strong connections with their ventures, how they benefit or are challenged by the local entrepreneurial ecosystem, the mechanisms and limitations to access the resources of the ecosystem, as well as their role within that ecosystem. For instance, the study by Sperber & Linder (2019) found that females and males experience differently the support provided by the entrepreneurial ecosystem since the way the ecosystem's support is perceived depends to a large extent on the individual entrepreneurs' demands and the specific challenges they face in their startup process (Sperber & Linder, 2019).

The relevance of studying the phenomenon of sustainable entrepreneurship from the perspective of the founders also lies in the fact that sustainable startups are key players in multilevel transitions towards sustainability, and for that reason, as proposed by Olteanu & Fichter (Olteanu & Fichter, 2022), a better understanding of the sustainable startup process in different contextual settings can be helpful to determine: 1) how startups introduce radical

sustainable innovations to the market, 2) how sustainable startups can have different potential to generate environmental or social impact; and 3) how to better use public funds in startup support programs for that type of business (e.g. whether they should be addressed, supported and financed differently) (Olteanu & Fichter, 2022).

We also consider that our study offers an important empirical contribution to the field of sustainable entrepreneurship because, on the one hand, we are collecting primary data from startup founders at different levels of analysis, which is considered more time-intensive (Roundy & Lyons, 2022). On the other hand, we intend to provide an analysis based on the heterogeneity of the founders, as well as across countries, industries, and entrepreneurial support ecosystems. Country and regional comparisons have the potential to provide relevant and applicable insights as territorial units differ in terms of institutional conditions for innovation and entrepreneurship that can support or constrain the entrepreneurial activity (Komlósi et al., 2022).

Although there is a large body of knowledge on how macro-level dynamics (e.g. complex systems of actors, socioeconomic forces or entrepreneurs' immediate environments) affect the startup process (Roundy & Lyons, 2022), the study of the nexus between the founder, the new venture, and the entrepreneurial ecosystem remains underrepresented (Roundy & Lyons, 2022).

We aim to show empirical evidence about the underlying factors of each startup case (within-case analyses) and the similarities and differences (cross-case comparisons) in the sustainability orientation of startups from different contextual settings. Finally, the link between the individual, organisational and ecosystem levels will be conceptualised through an integrative framework.

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