



Advocating sustainability in entrepreneurial ecosystems: Micro-level practices of sharing ventures

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ABSTRACT

While extant research on entrepreneurial ecosystems has focused on macro-level factors influencing the ecosystem's development, the role and impact of entrepreneurial practices have been neglected. The objective of this study is to address this research gap and to shed light on the micro-level practices of entrepreneurs who support sustainability transitions in entrepreneurial ecosystems. Our inductive study looks at these micro-level practices from the perspective of sustainable ventures situated in the sharing economy. We conducted 31 in-depth interviews with the founders and senior managers of sustainable ventures to investigate how they advocate the sustainability cause in their ecosystem. Our findings show that sustainable entrepreneurs rely on three distinct sets of micro-level practices: building a supportive environment, disrupting normative standards, and reframing the sustainability paradigm. Also, sustainable entrepreneurs engage in political work to strengthen their position and credibility in the sharing economy, which is being increasingly dominated by profit-oriented players and business practices. By substantiating the central role and micro-level practices that sustainable entrepreneurs enact to advocate sustainability, our study contributes to theorizing the sharing economy. Furthermore, our resultant framework provides a detailed overview of the distinct micro-level practices that help ventures to support the sustainability transition in entrepreneurial ecosystems.

1. Introduction

The concept of entrepreneurial ecosystems has gained increased significance in entrepreneurship research and practice by moving the investigative perspective from an isolated frame of reference toward a more holistic inquiry into the dynamics between various actors and their environment (Acs et al., 2017; Colombo et al., 2019). The entrepreneurial ecosystem perspective considers the systemic agglomeration of various actors, attributes, and relations that conjointly affect entrepreneurial activities and constitute the characteristics of an ecosystem (Acs et al., 2014; Isenberg, 2010; Spigel, 2017). Mason and Brown (2014), [p. 5] define an entrepreneurial ecosystem as "a set of interconnected entrepreneurial actors [...] institutions [...] and entrepreneurial processes [...] which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment." Consequently, the central assertion of the entrepreneurial ecosystem view is that focusing on the resources and capabilities of an

entrepreneurial venture is not sufficient to explain its success; instead, it is the multiple interactions of the venture and its surrounding factors that affect its performance. Hence, the ecosystem view enables the complex nature of entrepreneurship to be considered, where different dynamics affect both the constitution of the ecosystem and the evolution of the embedded entrepreneurial venture (Fichter and Tiemann, 2020; Goswami et al., 2018).

However, while research on entrepreneurial ecosystems has rapidly grown, the constituents of an entrepreneurial ecosystem remain unclear (Audretsch et al., 2019). Moreover, while entrepreneurial ecosystem research emphasizes the ecosystem's macro-level attributes, institutions, and relations, it neglects the role of the central carrier of the ecosystem: the entrepreneurial venture itself. Capturing the role of the entrepreneur in the development of the ecosystem is crucial to understanding entrepreneurial ecosystems as a whole, and studying this offers a central perspective for understanding the emergence of entrepreneurial ecosystems that closely adhere to the sustainability cause

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(Malecki, 2018). Sustainable entrepreneurial ecosystems create distinct favorable environmental conditions for the development of sustainable entrepreneurship and the underlying sets of sustainable economic activities. Sustainable entrepreneurship is defined as the "discovery, creation, and exploitation of opportunities to create future goods and services that sustain the natural and/or communal environment and provide development gains for others" (Patzelt and Shepherd, 2011), p. 632). The promotion of sustainable entrepreneurship results from the necessity of addressing critical contemporary challenges for society, such as climate change and social inequality. Unlike traditional entrepreneurs, sustainable entrepreneurs actively strive to avoid negatively affecting the environment and society (Hockerts and Wüstenhagen, 2010; Patzelt and Shepherd, 2011), seeking instead to protect social coherence and provide environmental remedies. As entrepreneurial practices disrupt established structures and institutions, sustainable entrepreneurs trigger positive socio-economic changes for sustainability (Hekkert et al., 2007; Schaltegger and Wagner, 2011). Consequently, the sustainable entrepreneurship movement contributes to transforming society toward a sustainable future. However, despite the vital role played by sustainable entrepreneurs in offering solutions for broader societal problems, we know little about how and to what degree they influence the various entrepreneurial ecosystem actors to adhere to and foster sustainability principles (Muñoz and Cohen, 2017b; Spigel and Harrison, 2018).

To investigate this under-researched topic, our study draws on 31 in-depth interviews with the founders and senior managers of sustainable ventures in the sharing economy. We specifically address the following research question: *how do sustainable sharing ventures advocate the sustainability cause in their ecosystems?* Specifically, we examine the micro-level practices that facilitate the sustainability of sharing ventures. We define a micro-level practice in this study as a set of sayings, doings, and actions that individual actors carry out to pursue a specific task (Schatzki, 2005; Schatzki, 2016; Welter et al., 2017). The sharing economy provides a valuable research setting for our study because its origins are grounded in the principle of creating a more sustainable economy. It does this by providing the capability of acquiring rather than possessing underutilized resources (Acquier et al., 2017; Murillo et al., 2017). However, the rapid growth of the sharing economy over recent years has raised concerns about its credibility with regard to its original sustainability (Acquier, Carbone., & Vasseur, 2020; Etter et al., 2019; Frenken, 2017; Martin, 2016; Parguel et al., 2017)). Recent research shows that the dominant players of the sharing economy seem to have little concern for sustainability (Zvolska et al., 2019). On the contrary, their profit-centered logic has led to an evolution of the sharing economy that negatively affects the development of sustainable sharing ventures (Ahsan, 2020, de Lange and Valliere, 2020, Geissinger et al., 2019). Nevertheless, the sharing economy is still considered to be a market model that enables the transition to a more sustainable society (Belk, 2014, Nadeem et al., 2020).

The main contribution of our study is a theoretical framework for the micro-level practices of sustainable sharing ventures that facilitate the sustainability cause in their ecosystem. We find that sustainable entrepreneurs rely on three distinct sets of micro-level practices: building a supportive environment, disrupting normative standards, and reframing the sustainability paradigm. Furthermore, we find that sustainable ventures engage in intense political work to defend their position in an entrepreneurial context that increasingly threatens their credibility. In sum, by delineating the central role of sustainable entrepreneurs as advocates of sustainability in their ecosystems, our study helps theorize the sharing economy and provides further insights into the development of sustainable entrepreneurial ecosystems.

2. Theoretical background

2.1. Entrepreneurial ecosystems

The entrepreneurial ecosystems literature follows a systemic notion by emphasizing the interactions between entrepreneurs and the various elements, attributes, and relations within a network, geographical region, or specific sector (Paolucci, & Ughetti, 2019; (Audretsch and Belitski, 2017; Auerswald and Dani, 2017; Neumeier and Santos, 2018; Neumeier et al., 2018; Thompson et al., 2018); Colombelli, (Spigel, 2017)). These constituent elements (e.g., government, financial institutions, or universities) as well as the related attributes (e.g., culture, networks, number of entrepreneurs, capital intensity) and their relation to each other determine the entrepreneurial ecosystem's performance, innovativeness, or growth (Autio et al., 2014; Brown and Mason, 2017; Zahra and Covin, 1995). The systemic nature of entrepreneurial ecosystems provides a novel way of building theory in entrepreneurship research, as it abandons the isolated-entrepreneur approach, adopting instead a perspective that is more holistic and context-related (Sussan and Acs, 2017).

2.1.1. Towards a systemic view on entrepreneurial ecosystems

While a coherent definition of entrepreneurial ecosystems is not yet established (Roundy et al., 2018), scholars commonly agree on its systemic nature as outlined by Stam (2015), [p. 5]: "the systemic conditions are the heart of the ecosystem: networks of entrepreneurs, leadership, finance, talent, knowledge, and support services". The presence of these elements and the interaction between them predominantly determine the success of the ecosystem. Healthy and prosperous ecosystems provide appropriate environmental settings for entrepreneurial actors to exchange knowledge and create value (Stam, 2015). As such, the way in which the constituent elements interact with each other determines the development of entrepreneurial abilities (Lafuente et al., 2016). If imbalances occur between the constituent elements, they result in unfavorable conditions for entrepreneurial actions and growth (Lafuente et al., 2018).

Some studies have looked at the role of various institutional actors, such as incubators, accelerators, or policy initiatives, within entrepreneurial ecosystems (Cruz-Ros et al., 2017; Fichter and Tiemann, 2020; Goswami et al., 2018; Motoyama and Knowlton, 2017). However, the institutional perspective provides only limited insights into the role of entrepreneurs as specific actors shaping their environmental conditions. As a result, scholars in the field have called for further clarification about the role of entrepreneurs and their interactive dynamics within entrepreneurial ecosystems (Cavallo et al., 2018; Mack and Mayer, 2016). Specifically, while research agrees on the entrepreneur's central role in developing and perpetuating the entrepreneurial ecosystem (Alvedalin and Boschma, 2017; Malecki, 2018), there is little understanding of how entrepreneurial practices that are deliberately intended to influence the constituent elements of the entrepreneurial ecosystem determine its further development.

2.1.2. Sustainable ventures in entrepreneurial ecosystems

To develop theoretical inferences about sustainable entrepreneurship, the examination of the relational structure between entrepreneurs and their surrounding actors is an essential condition. Against the background of the importance of today's societal and environmental challenges, sustainable entrepreneurs might be able to influence multiple actors in their entrepreneurial ecosystems to adhere to sustainability principles. Cohen (2006) argues that dominant actors within sustainable entrepreneurial ecosystems who commit themselves to sustainability goals facilitate the establishment of sustainable ventures. Since "there is no such thing as an innovation system without entrepreneurs" (Hekkert et al., 2007), p. 421), sustainable ventures become central to finding ways of addressing global challenges for societies, such as rapid climate change or growing social inequality. Sustainable entrepreneurs can act

as role models who, if they are successful, encourage other actors within the ecosystem to imitate their behavior (Spigel, 2017). Related studies have investigated university-based sustainable entrepreneurial ecosystems (Theodoraki et al., 2017; Wagner et al., 2019), the network connectivity of sustainable ventures within entrepreneurial ecosystems (Muñoz and Cohen, 2017b; Neumeier and Santos, 2018), and the macro-level factors influencing the sustainable dimension of entrepreneurial ecosystems (Divito and Ingen-Housz, 2019; Pankov et al., 2019). From the specific perspective of entrepreneurial actors, O'Shea et al. (2019) recently investigated how entrepreneurs sense and seize opportunities in sustainable entrepreneurial ecosystems. Their results show that opportunity development is influenced by contextual factors such as emotional atmosphere and a coherent sustainability motivation in the ecosystem.

However, despite these initial objectives of investigating the entrepreneur's role in the evolution of entrepreneurial ecosystems, current research does not provide deeper insights into the interrelations between entrepreneurial practices for the development of sustainable entrepreneurial ecosystems (Cavallo et al., 2018; Malecki, 2018). We address this knowledge gap in the literature by investigating how sustainable entrepreneurs advocate the sustainability cause in their ecosystem. We specifically focus on the micro-level dynamics of the practices of sharing ventures that are intended to foster sustainability in the ecosystem. In this way, we aim to provide a micro-level perspective that contributes to the emerging theory on entrepreneurial ecosystems, and which helps to further elaborate on how entrepreneurial practices and the constituent elements of entrepreneurial ecosystems conjointly enable the creation, innovativeness, and growth of ventures (Acs et al., 2014; Nylund and Cohen, 2017).

2.2. The sustainability dimension in the sharing economy

The sharing economy has rapidly emerged from its beginnings as a marginal choice for individuals pursuing a different lifestyle into the new consumerist behavior of modern societies. The central principle undergirding the sharing economy is the enactment of a fundamental transition from permanent, exclusive ownership to temporal, collaborative accessibility (Belk, 2010). Sharing is envisaged to enable more efficient utilization of resources, improved redistribution of power, and the development of new business models (Cherry and Pidgeon, 2018; Grinevich et al., 2019; Heylighen, 2017). However, while scholars agree that in principle, the practice of sharing properties and resources supports the central objectives of sustainability (Botsman and Rogers, 2011; Hamari et al., 2016; Parguel et al., 2017), the interpretation of the term itself and the resultant implications of sharing on the environment, society, and economy have led to a wide range of dissenting views (Etter et al., 2019); Dreyer et al., 2017; (Ertz and Leblanc-Proulx, 2018, Parguel et al., 2017)).

2.2.1. The sharing economy as a contested field

The scholarly understanding of the sharing economy varies considerably, with terms such as "collaborative consumption," "crowd-based capitalism," or "gig-economy" being used to describe its nature (Acquier et al., 2020; Martin, 2016; Sundararajan, 2014). To provide conceptual clarity in this study, we therefore refer to the definition of the sharing economy as "a socio-economic system enabling an intermediated set of exchanges of goods and services between individuals and organizations which aim to increase efficiency and optimization of under-utilized resources in society" (Muñoz and Cohen, 2017a), p. 21).

Furthermore, serious concerns have been formulated about the sustainability dimension that was initially attributed to the sharing economy. These doubts result from the counterproductive behavior of large sharing economy ventures, such as Uber and Airbnb, which follows the economic logic of profit maximization at the cost of societal and environmental concerns, and also from the weak evidence for the sharing economy's sustainability effects. As a result, the credibility of the

sharing economy's sustainability claims is being questioned by society and academia alike (Frenken and Schor, 2017; Martin, 2016; Murillo et al., 2017).

2.2.2. The controversial state of sustainability in sharing practices

Several scholars highlight the environmental benefits of sharing as an efficient use of resources (Botsman and Rogers, 2011; Heinrichs, 2013; Martin, 2016; Plewnia and Guenther, 2018) and the prevention of overproduction (Acquier et al., 2017). However, other scholars take the opposite view, and claim that the sharing economy causes a reverse effect. For example, a recent study found that urban consumers prefer carsharing over more environmentally-friendly mobility alternatives such as public transportation or bikes (Murillo et al., 2017). Another study conducted by Tussyadiah and Pesonen (2016) shows that accommodation sharing increases the total number and duration of consumer travels.

From a social perspective, sharing is viewed as contributing to a sense of community. Sharing practices strengthen trust and solidarity (Belk, 2010; Benkler, 2017; Zvolška et al., 2019) and leverage social equality among humans (Acquier et al., 2017). However, critical voices in this context argue that the creation of micro-entrepreneurs who lack the security of jobs and insurance violates fundamental human rights (Ahsan, 2020; Dreyer et al., 2017; Plewnia and Guenther, 2018);. Similarly, large-scale sharing transactions encourage social inequality. For example, the sharing of accommodation space for travel and leisure purposes is especially attractive for owners of well-equipped apartments in city centers, who often belong to the high-income segment of society (Zvolška et al., 2019). Lastly, while the initially intended social and environmental benefits of the sharing economy stem from an alternative system to capitalism (Ciulli and Kolk, 2019), its current evolution shows an intense concentration of power among a few large sharing ventures operating on a global scale (Murillo et al., 2017).

To summarize, while the academic debate has formulated widely contrasting views on the sharing economy's sustainability dimension, scholars commonly agree that the involved entrepreneurial actors espouse two opposing philosophies, namely a market logical and a non-market logic (Laurell and Sandström, 2017), where sustainable and non-sustainable ventures coexist (Pankov et al., 2019). However, while the macro-level factors influencing the sustainability dimension of the sharing economy have become an important subject of investigation, we know little about the micro-level practices enacted by sustainable sharing ventures to defend and support sustainability principles in their respective ecosystems.

3. Data and method

3.1. Research context

We conducted an inductive study (Bell et al., 2018; Gioia et al., 2013; Silverman, 2013) to explore how sharing entrepreneurs advocate the sustainability cause in their ecosystems. Our paper draws on entrepreneurial ecosystems research, which calls for a sound understanding of the interactive dynamics between various elements in an entrepreneurial ecosystem (Autio et al., 2018; Cavallo et al., 2018). In this study, we paid attention to the identification of micro-level practices that help sustainable entrepreneurs to enact and stand up for the sustainability dimension within their respective ecosystems. We rely in our analysis on the definition of entrepreneurial micro-level practices as distinct sets of sayings, doings, and actions that actors carry out to pursue venture-related tasks and objectives (Schatzki, 2016; Welter et al., 2017), 2005).

The sharing economy provides a rich research setting for our study for various reasons. First, scholars generally agree that the sharing economy was originally grounded in the principle of fostering sustainability through the creation of social and environmental benefits for society (Curtis and Lehner, 2019; Geissinger et al., 2019; Prothero et al.,

2011). Second, while the sharing economy is still considered to encourage a more sustainable life, it is likewise characterized by contradicting tensions between those entrepreneurs who live by and protect the sustainability vision and those who pursue economic growth at all costs (Laurell and Sandström, 2017; Zvoltska et al., 2019). Third, since several scholars judge that the sharing economy is drifting toward a new form of capital extraction (Acquier et al., 2017; Ahsan, 2020; Dreyer

et al., 2017; Frenken and Schor, 2017; Murillo et al., 2017) the foundational principle of sustainability "is actually taking a back seat" (Geissinger et al., 2019), p. 428). Against this background, it remains unclear how the entrepreneurs who are committing to sustainable values take action when it comes to forming and shaping an ecosystem that represents the initial idea of the sharing economy and facilitates the sustainability cause.

Table 1
Summary of firms and respondents in data collection.

Venture	Brief description	Type	Location	Founded	Interviewee Position	# of Employees
CAR01	Offers hydrogen cars for sharing in the city of Munich. The world's first car share service based on hydrogen cars.	B2C	Munich, Germany	2016	Head of Marketing	10
RIDE01	Provides a platform for private people to offer a ride for shared commutes.	P2P	Hamburg, Germany	2006	Press officer	> 100
RIDE02	Offers a ride-sharing service with electric vehicles. A driver is provided and picks up people with similar routes.	B2C	Berlin, Germany	2014	CEO and Co-Founder	> 10
SCOO01	Allows one-way, point-to-point, short-term rental of e-scooters in selected cities.	B2C	Berlin, Germany	2016	CEO	> 10
SPA01	A platform and space for ideas around the circular economy offering coworking space, events, consultancy services, and project development.	B2B	Berlin, Germany	2016	Head of communication	>15
CAR02	Car-rental platform for private or professional vehicles.	B2C / B2B	Berlin, Germany	2010	PR & Community Manager	100
FOOD01	Helps restaurants and bakeries to sell their leftovers to individuals for a small amount of money instead of throwing them away.	B2C	Leipzig, Germany	2017	Online Marketingmanager	> 10
GOOD01	A platform to sell, buy, exchange, give, or rent fair, sustainably produced clothes, books, or toys.	B2C/				
C2C	Berlin, Germany	2012	CEO & founder	1-10		
RIDE03	Provides a platform for private people to offer a ride for shared commutes.	P2P	Darmstadt, Germany	2010	CEO & founder	> 10
FOOD02	Saves and distributes food that is no longer used by consumers, supermarkets, restaurants, and other food facilities.	B2C	Cologne, Germany	2012	Board member	>500
RIDE04	On-demand mobility provider offering autonomous driving, and big data analyses for traffic flows to predict demand	B2C	Frankfurt, Germany	2017	Business Development Manager	50
CROW01	A crowdfunding-platform for individuals offering or supporting projects, especially for people with a migration background.	C2B	Bochum, Germany	2014	CEO and Founder	1-10
CLO01	A platform to buy, sell, or exchange second-hand clothes, accessories, etc.	P2P	Berlin, Germany	2008	CEO	>160
TOY01	Offers short-term rental of high-quality kids' toys in boxes that can be individually selected and delivered via the post on a monthly basis.	B2C	Berlin, Germany	2013	CEO and Co-Founder	>15
GOOD02	A private social network and platform for a community of neighbors enabling sharing of goods and information and organization of neighborhood events.	B2C	Berlin, Germany	2015	CEO and Co-Founder	> 10
BIKE01	Enabling and providing standard city as well as e-bikes for shared use, accessible via smartphone.	B2C	Leipzig, Germany	2010	CEO and Co-Founder	> 10
ACCO01	Offers free accommodation sharing for pet-sitting.	P2P	Berlin, Germany	2017	CEO and Co-Founder	1-10
FURN01	A platform for temporarily renting designer furniture.	B2C	Cologne, Germany	2016	CEO and Founder	1-10
FOOD03	Provides a platform that enables private cook to share home-made meals.	P2P	Cologne, Germany	2017	CEO and Founder	1-10
BIKE02	Offers an e-bike sharing platform located in geographical areas where walking can be demanding.	B2C	Wuppertal, Germany	2017	CEO and Co-Founder	> 4
GOOD03	Provides a slock through open-source infrastructure on blockchain application modules, which enables renting and controlling private goods.	B2C	Mittweida, Germany	2015	Co-Founder and CTO	1-10
SPA02	A coworking space that offers offices, events, and individual support for social startups. > 10	B2B	Berlin, Germany	2009	Site Manager	
FOOD04	Forms a community of individuals who commit to avail themselves biological food from a regional farm for one year after paying a fixed amount sum of money.	B2C	Hannover, Germany	2009	Chairman	> 100
CAR03	Offers a carsharing service with small cars as well as vans, combis, buses or transporters.	B2C	Leipzig, Germany	1992	CEO and Founder	> 10
RIDE05	Offers a crowd-based transport solution. Users can order or offer the delivery of goods.	P2P	Leipzig, Germany	2015	CEO and Co-Founder	1-10
FOOD05	Helps restaurants and bakeries to sell their leftovers to individuals for a small amount of money instead of throwing them away .	B2C	Berlin, Germany	2015	Marketing and Partnerships	> 10
GOOD04	Provides a platform that matches neighborhood sharing platforms.	P2P	Berlin, Germany	2018	CEO and Founder	1-10
RIDE06	Provides on-demand mobility pooling technology.	B2C	Berlin, Germany	2012	Business Development	>150
CLO02	Provides a marketplace for used clothes.	P2P	Berlin, Germany	2012	Head of Product	>150
COW01	A coworking space for creative professionals.	B2B	Berlin, Germany	2014	CEO and Founder	> 15
VAN01	A platform that enables sharing and renting out caravans for a short-term or long-term period.	P2P	Berlin, Germany	2016	Country Manager	1-10

3.2. Sampling logic and data collection

During the period from January 2018 to December 2018, we conducted 31 in-depth interviews with the founders and senior managers of sharing ventures operating in Germany. We relied on purposive sampling (Patton, 2002; Yin, 2009), as we were primarily concerned with identifying sustainable-oriented sharing ventures to show (a) how they work within their ecosystem and (b) what kind of micro-practices they enact to facilitate the sustainability dimension. We specifically selected sharing entrepreneurs as respondents who address social and/or environmental issues in their sayings, doings, and actions. To ensure that we interviewed sustainable sharing ventures, we scrutinized the websites of ventures to verify if sustainability was included in their mission statements. In addition, we focused on the most important clusters of entrepreneurial ecosystems in Germany, namely those located in Berlin, Cologne, and Leipzig. Our resultant study sample includes ventures from four sectors: goods (e.g., food, clothes, toys), mobility (e.g., cars, bikes, caravans), services (e.g., crowdfunding, community-building), and space (e.g., coworking, accommodation). In order to ensure we had covered the most representative sectors in the sharing economy, we strove for variation in the sustainable ventures in the sample; that is, we included both small and medium-sized ventures to compare their respective practices. All ventures in our sample were established after 2008, the same year in which both Airbnb and Uber – the dominant and most thriving players in the sharing economy (Geissinger et al., 2019) – started their businesses. We purposively interviewed founders and senior management actors as they are responsible for strategic venture decisions. This purposeful selection of participants is important for the sampling logic because it increases the richness and credibility of our results (Eisenhardt and Graebner, 2007) in that we were able to compare the consistencies and contrasts in how sustainable sharing entrepreneurs work within their ecosystem and interact with other actors in it to facilitate sustainability (Eisenhardt and Graebner, 2007; Patton, 2002).

The interviews lasted forty minutes on average, and they were conducted using a semi-structured format. During the interviews, we focused on asking respondents to address their general understanding of sustainability, their business sustainability practices, and their relationships and interactions with other ecosystem actors that facilitate

sustainability. We recorded and transcribed all interviews for an in-depth analysis of our data. For confidentiality reasons, we disguised the identities of all selected ventures and respondents. We ceased data collection once we were confident that our data reflected the necessary depth and magnitude for the phenomenon under study (Flick, 2014). Table 1 below shows the sharing ventures and the respondents selected for our resultant study sample.

3.3. Data analysis

For our data analysis, we followed an iterative procedure; that is, we constantly alternated between the collected data and the emerging theoretical concepts (Glaser and Strauss, 1967; Miles and Huberman, 1994; Strauss and Corbin, 1998). This analytical process was carried out in three steps. First, we classified the evidence according to empirical themes; second, we abstracted the empirical themes into conceptual categories; and third, we aggregated the conceptual categories into a theoretical framework that explains how sharing entrepreneurs advocate the sustainability cause in their ecosystem. Fig. 1 below summarizes these stages of the analytical process. Throughout the analysis, we used the ATLAS.ti research software to document, arrange, and contrast the codes of all conducted interviews. We continuously returned to the literature to ground the emerging themes in the existing theoretical concepts of entrepreneurial ecosystems.

3.3.1. Stage I: Identifying predominant themes

In the first stage, we developed first-order codes that describe emerging empirical themes that correspond as far as possible to the original evidence (Strauss and Corbin, 1998). We analyzed each interview transcript separately to identify salient themes for how sharing entrepreneurs advocate the sustainability cause in their ecosystem. In addition, we started to compare the emerging themes across the transcripts to refine the representative codes and to assess the variance between them. Throughout the analytic process, we went back to the relevant passages of the transcripts to validate if they supported the emerging themes. When we found discrepancies, we revised the themes and recoded the data. Once we had agreed on a set of empirical themes, we subsumed them into higher-order categories, which provided the

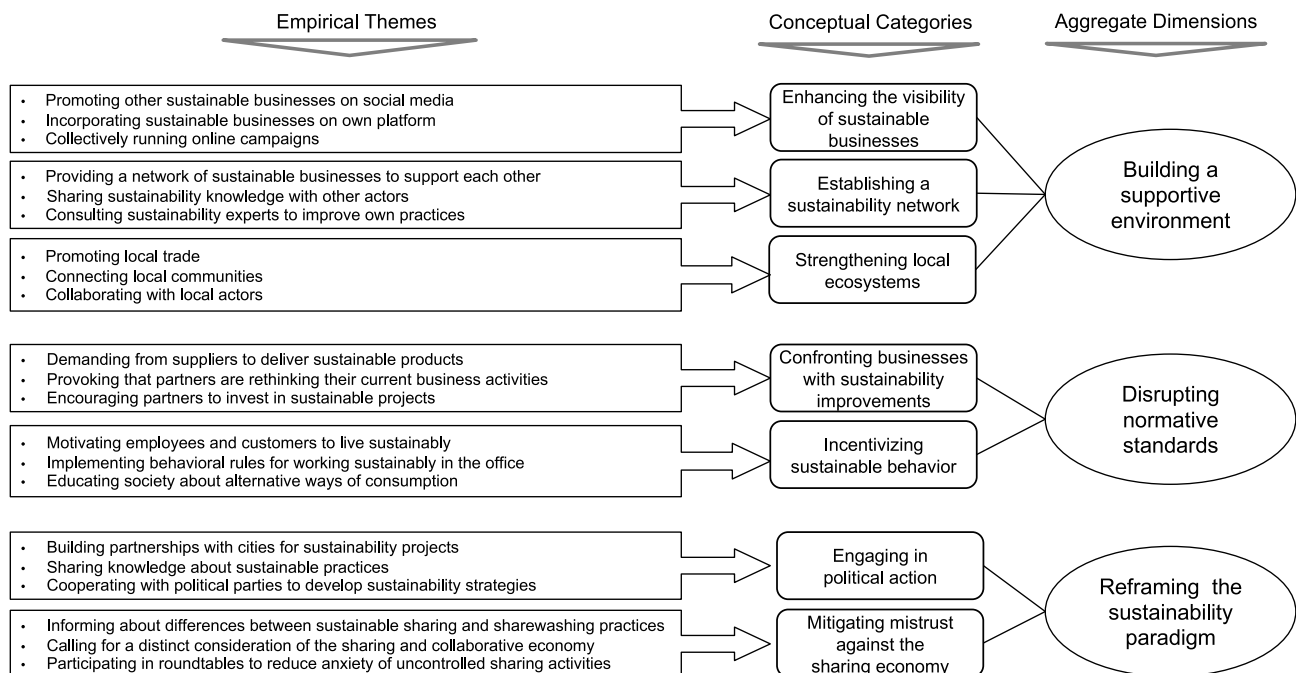


Fig. 1. Sayings, doings, and actions of sharing ventures to advocate sustainability.

preliminary foundation for the subsequent theoretical framework.

3.3.2. Stage II: Constructing conceptual categories

In the second stage of analysis, we used axial coding (Strauss and Corbin, 1998) to consolidate and abstract the emerging thematic structure for how the micro-level practices of sustainable ventures advocate the sustainability cause in their ecosystem. We also used axial coding to summarize the empirical themes into higher-level categories (Yin, 2009; Eisenhardt 1989). To do so, we constantly compared the empirical themes in the evidence with the emerging conceptual categories (Glaser and Strauss, 1967, Strauss and Corbin, 1998). For example, perusing statements about network activities led us to combine the themes of 'providing a network of sustainable businesses to support each other', 'sharing sustainability knowledge with other actors', and 'consulting sustainability experts to improve own practices' into the conceptual category 'establishing a sustainability network'. Finally, our analysis resulted in several second-order themes that ground and specify our conceptual categories (Gioia et al., 2013).

3.3.3. Stage III: Developing a theoretical framework

In the final analytic stage, we aggregated the conceptual categories into an empirically grounded theoretical framework that identifies and reflects three distinct micro-level practices of sustainable sharing ventures in their ecosystem. We took further steps to increase the trustworthiness of our findings, such as independently coding the interview transcripts and obtaining feedback from our respondents about the representativeness of the identified categories (Nag et al., 2007).

4. Findings

We adopted a thematic analysis that enabled us to understand how sustainable entrepreneurs advocate the sustainability cause in their ecosystem. Fig. 1 illustrates the resultant data structure and delineates three distinct micro-level practices, namely: building a supportive environment, disrupting normative standards, and reframing the sustainability paradigm.

Our study reveals that sustainable ventures enact the three distinct micro-level practices as sets of sayings, doings, and actions, which

conjointly help to advocate the sustainability cause, as shown in Fig. 2. Below we explain the three micro-level practices in detail, and illustrate them with representative quotes from the interview data.

Furthermore, we provide in Table 2 primary data excerpts that empirically support our description of the three distinct micro-level practices and provide the empirical grounding for the related second-order themes in the theoretical framework.

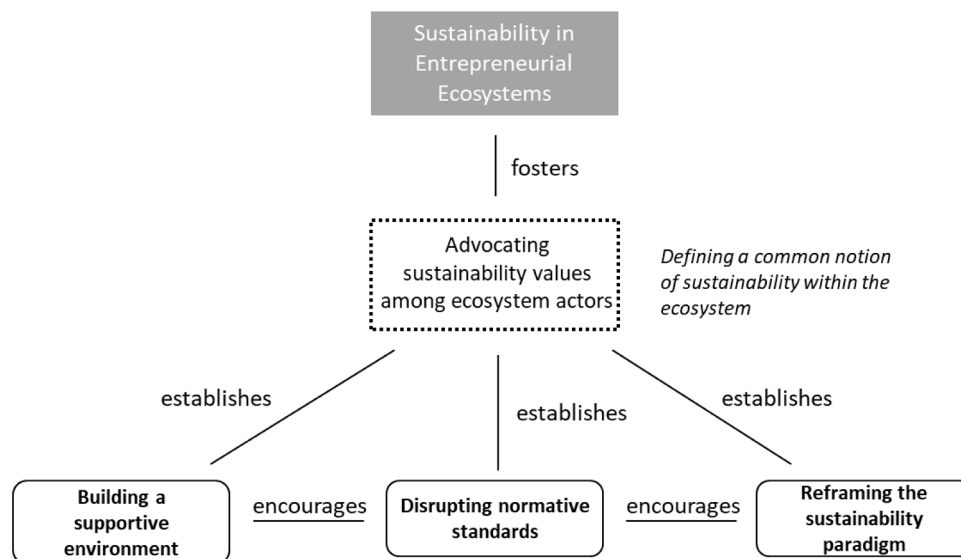
Finally, to ensure that our analytic procedures are comprehensively transparent, Table 3 below provides further details about the data we used to support the interpretation of second-order themes and the subsequent establishment of our framework of micro-level practices for advocating sustainability. The table specifies for the whole study sample the respective ventures that we mapped in the analytic and interpretative process to the aggregate dimension and conceptual categories of the framework.

4.1. Building a supportive environment

Building a supportive environment reflects the endeavor of sustainable ventures to encourage other sustainability-oriented actors in their ecosystem. Providing a supportive environment to sustainable actors offers them protection from factors that threaten their position in the ecosystem and fosters the expansion of the actors' capabilities and resilience. Our evidence shows that entrepreneurs support other actors through the following micro-level practices: *enhancing the visibility of sustainable businesses, establishing a sustainability network, and strengthening local ecosystems.*

In the case of *enhancing the visibility of sustainable businesses*, sustainable sharing entrepreneurs enact several micro-level practices to draw public attention to sustainable ventures. Our data show that entrepreneurs encourage sustainable businesses by promoting them on social media or by collectively running online campaigns. We found that enhancing the visibility of sustainable businesses does not depend on a close relationship between the promoted business and the sharing venture. Our respondents reported that they support the businesses of friends or partners, and they also support firms that share similar ideals. In some cases, the support of sustainable businesses serves to counteract the large industry players that sharing entrepreneurs consider to be a

Sharing economy field as research setting



<- Three distinct micro-level practices to advocate the sustainability cause ->

Fig. 2. A model of micro-level practices to advocate sustainability.

Table. 2
Data supporting the interpretation of second-order themes.

Aggregate Dimension	Conceptual Categories	Example Quotes
Building a supportive environment	<i>Enhancing the visibility of sustainable businesses</i>	<p>Recently we posted on Facebook the launch of another sharing organization with who we are already on a friendship base. We support each other and share other projects that we like on social media. (FOOD03)</p> <p>Utopi was once a partner or for example Mamikreisel. They also stand for sharing and sustainability. We're doing online campaigns together, to increase their visibility. (TOY01)</p> <p>We give visibility to sustainable companies. Armedangels, for example, which are producing sustainable textiles. (FURN01)</p> <p>It's really about bringing initiatives together and making them visible, and if we can make them visible we can get others that would be more visible too, so it is pushing forward what we want. (SPA01)</p> <p>Our platform helps increase the visibility of small local businesses, which are more sustainable than someone like Amazon. (GOOD02)</p>
	<i>Establishing a sustainability network</i>	<p>On a very small scale, we are trying to provide an ecosystem or an environment where we use our network to help. So my main goal is that, because we have a network of clients operating in sustainability, we can say "I know you are working on this, you should meet that one". So we provide networking for sustainable businesses. (COW01)</p> <p>We worked with the Ethical Fashion Show in Berlin. Together we try to get influencer and network partner, that help us spreading the word of sustainability. (CLO01)</p> <p>We are building our own ecosystem of people who are really sustainability focused. Like the bike carrier companies we work with. (RIDE05)</p> <p>We also cooperate with different FinTechs and startups in sustainability to build our own sustainability network. (RIDE03)</p> <p>We are working with influencers to spread sustainability. (ACOO01)</p> <p>We are building our ecosystem of sustainable consumers since more than 10 years, to give people the opportunity to sell their used clothes. (CLO02)</p>
	<i>Strengthening local ecosystems</i>	<p>The local book trade depends heavily from online trading. We cooperate with those local bookstores and try to involve them in our business to promote local trade. (GOOD01)</p> <p>We are cooperating with local bike sharing providers, local bio supermarkets, and public transport companies, to strengthen local communities. Our aim is to strengthen local networks. (CAR03)</p> <p>We are only cooperating with local partners or energy suppliers in each of the cities we work with. (SCOO01)</p> <p>We only work with local providers and employment agencies, to help local people who are currently in difficult financial situations or who have no employment opportunity. (RIDE04)</p> <p>We are helping people to grow their food locally and not be dependant on big companies. (FOOD04)</p>
Disrupting normative standards	<i>Confronting partners with sustainability improvements</i>	<p>So, if you start in this kind of business and you want to make a difference you will just notice very quickly that you compete with taxis for example who really don't give a fuck about a sustainable mobility. We said that we have to do something different to confront those taxis. And the most visible and tangible thing to do it is offering different vehicles by replacing normal with eco-friendly cars...as taxis are now seeing that running electric fleets is working for us, they might change the way they see it, their point of view on electric mobility. (RIDE02)</p> <p>We want to encourage restaurants, bakeries and hotels to work with us and not throw food away. To provide value with their leftovers. (FOOD01)</p> <p>You often notice that supermarkets that are cooperating with us, are throwing away a lot in the beginning. Later it becomes less and less because the supermarkets realize how much food is thrown away and start to better plan their purchasing. (FOOD02)</p> <p>We are part of the german start-up network where we explicitly talk about sustainability and encourage other start-ups to be more sustainable. (VAN01)</p>
	<i>Incentivizing sustainable behavior</i>	<p>We all follow the same ideology of being environmentally conscious. Therefore we also try as much as possible eating food that was thrown away, wearing second-hand clothes or coming to work by bike or public transport. Otherwise, our team would not work. We motivate each other to live a sustainable life. (FOOD05)</p> <p>I want to show people that they can be like a lizard, they don't need to buy the things they can just rent them, that's what I want to make clear. (GOOD04)</p> <p>And together with that communication we will start, not a campaign, but a cycle of different facebook posts, blog posts etc. to help our 70 million members in the world transition into a more sober, energy cold sober way of life. (RIDE01)</p> <p>We are strongly communicating to incentivize people to share their cars, which is often very difficult. (CAR02)</p> <p>We want to inspire people to use public mobility and show them that it can be fun and is more sustainable. (BIKE02)</p>
Reframing the sustainability paradigm	<i>Engaging in political action</i>	<p>We have partnerships which are with the city [of Berlin], the city is not circular yet, but the point so, that we work together with them so that they become more circular. (SPA01)</p> <p>The importance of carsharing increases, which helps us to send the right message and influence politics. (SCOO01)</p> <p>We want to share our vision and influence politics. Especially if you are a social-startup you have to think more holistically and influence politics. (FURN01)</p> <p>We have developed solutions together with our city partners and this is some kind of lobbying for cycling in general. So, to show people you don't have to use your car. (BIKE01)</p> <p>We are part of a lot of political initiatives and alliances, such as the MAAS alliance to facilitate sharing, car sharing. (RIDE06)</p>
	<i>Mitigating mistrust against the sharing economy</i>	<p>Trust is the most important asset of the sharing economy, which was not always respected by every sharing economy player. But for us, the usage of data is well protected, we know that the sharing economy only works with trust. (CAR01)</p> <p>We were sending an ambassador to the German parliament to talk about crowdfunding. People typically think the things we are doing are not legal and right, but this is not true. (CROW01)</p> <p>We tried a lot of communication efforts to have a clear standpoint and differentiate ourselves from services like Uber. Because at first, the first perception of the general society is bad. (RIDE03)</p> <p>Supermarkets and gastronomes often fear that sharing food will throw a bad light on them, because they throw away food as their house is not well filled, etc. Sharing comes along with a whole chain of fear. We try to work through that by opening a discussion about their fears and how we can help them and make a plan together</p>

(continued on next page)

Table 2 (continued)

with them...in the end, this is a big stumbling block for sustainability if we do not succeed in taking their fears and encourage them to share. (FOOD01)

We dont solve the fundamental problem of the gap between rich and poor but we help that the big players of the sharing economy do not create a monopoly in the market and we give the sharing economy back to the people. (GOOD03)

threat to sustainability, such as Amazon. Some sharing entrepreneurs emphasized that they deliberately support small ventures because Amazon poses a risk for their very survival. We also found that sustainable entrepreneurs utilize their proprietary platform to enhance the visibility of sustainable businesses; for example, they implement filters or promotions on their webpages, as this founder reports:

One of our characteristics is that we want to encourage and promote responsible consumption. And that is why we specifically give sustainable product visibility. This works with filters and different promotions on our platform and so on. (GOOD01)

In building a supportive environment, sharing entrepreneurs not only strive for *enhancing the visibility of sustainable businesses*, they also support *establishing a sustainability network*. Scholars argue that networks of actors shape the environment and shared cultural beliefs of an ecosystem (Malecki, 2018). In our data, entrepreneurs primarily create networks between businesses, organizations, political parties, and communities with an intent to "...help to develop sustainable business" (FURN01). Accordingly, our data show that sustainable entrepreneurs establish networks between different actors in their ecosystem to exchange knowledge, expand sustainable businesses, and promote sustainability. Neumeier and Santos (2018) emphasize the importance of networks for sustainable entrepreneurs. They found that sustainable entrepreneurs show a higher intensity of connectedness than conventional entrepreneurs. Sustainable entrepreneurs emphasize that they create networks "...to help" (COW01), which demonstrates how they actively make use of their proprietary resources to support other sustainable businesses. In particular, they provide access to "...the right people" (SPA01), such as mentors, alumni, or sustainability experts. As such, sharing entrepreneurs often perceive themselves as filling the role of an intermediary that "...builds bridges" (SPA01), as the founder of a coworking space explains:

You can say we are this entity that builds bridges between different actors. We work with the city and the government, but we also have a community aspect, which might be very local with small initiatives. We are the ones who go between these actors, and we try to be the space where they can meet and interact. (SPA01)

In addition to *enhancing the visibility of sustainable businesses* and *establishing a sustainability network*, our analysis shows that sustainable entrepreneurs work at *strengthening local ecosystems*. We observed that their supportive micro-level practices often take in local businesses, such as the local bookshop or grocery stores. Although recent research argues that global products usually meet sustainability standards better than local products (Schmitt et al., 2017), the perception that buying local is better for the environment is still persistent (Adams and Salois, 2010; Thilmany et al., 2008). This positioning is also reflected by our evidence, as sustainable entrepreneurs perceive supporting local businesses to be an essential driver for sustainability. Therefore, they specifically cooperate with local businesses. As the founder of a carsharing service emphasized:

We think that a sustainable world needs to be organized in a more fragmented way; the world has to be organized locally. We only look for local companies to work together. (CAR02)

4.2. Disrupting normative standards

Disrupting normative standards relates to the endeavor of sustainable entrepreneurs to define a common notion of sustainability. According to extant research, changes that drive entrepreneurial forces are important for the development and direction of the entrepreneurial ecosystem (Spigel and Harrison, 2018). Roundy et al. (2018) argue, for instance, that entrepreneurs can enforce the adaption of other actors' behavior by addressing specific problems in their ecosystem. Our data analysis suggests that sharing entrepreneurs' sayings, doings, and actions aim to work on disrupting normative standards by *confronting businesses with sustainability improvements* and by *incentivizing sustainable behavior*.

In the case of *confronting businesses with sustainability improvements*, sustainable entrepreneurs use existing collaboration projects or enter into new ones that address sustainability issues and persuade their partners to become involved in change. These partners are mostly local governments, supermarkets, suppliers, or providers. For instance, sustainable entrepreneurs require their suppliers to deliver sustainable products, and they encourage their business partners to rethink their current activities and invest in sustainable projects. Throughout our interviews, sharing entrepreneurs described their aspiration to facilitate sustainability in society by stimulating various actors to adopt sustainable business patterns. Our analysis shows that sharing entrepreneurs contact partners to make them aware of their unsustainable behavior and to suggest alternatives that "...lead to a rethinking process" (RIDE05). This rethinking is invoked by actions that can be direct, for example by requiring products to be in recycled packages, or indirect, such as cooperating with supermarkets to identify food waste. We found that sustainable entrepreneurs also draw attention to sustainability improvements that go beyond the core business activities of partners. The founder of a crowdfunding platform described, for instance, how the platform encourages partners with a successful crowdfunding project to invest in sustainability projects, such as supporting schools or animal welfare:

For larger projects, we talk to the project initiators about how they can create a benefit for society. For larger projects, we ask what else do they offer in addition to the project? Can they, for example, build water wells with us or support a school? Or to support a sustainability association? So, we try to collaborate with the project initiators on projects, where they additionally invest in social or environmental problems. This could be animal welfare or association for leukemia children, and so forth. (CROW01)

In addition to *confronting businesses with sustainability improvements*, we found that sustainable entrepreneurs enact micro-level practices to *incentivize sustainable behavior* among employees, customers, and stakeholders. Our respondents reported that their employees "...motivate each other" (FOOD05) to adopt alternative ways of consumption, such as wearing second-hand clothes or preferring the use of public transport. We also observed that founders feel responsible for "...transferring sustainability to the company and employees" (COW01). The disruption of normative standards by incentivizing sustainable behavior is meant to change individuals by encouraging them to learn how to develop the ability to live sustainably. We found that sharing entrepreneurs act by educating, nudging, and exemplifying pro-environmental behavior through reward systems, gamification approaches, and alternative product experience. In the case of

Table 3
Mapping the ventures to the aggregate dimension and conceptual categories.

	Building a supportive environment		Disrupting normative standards		Reframing the sustainability paradigm		
	Enhancing the visibility of sustainable businesses	Establishing a sustainability network	Strengthening local ecosystems	Confronting partners with sustainability improvements	Incentivizing sustainable behavior	Engaging in political action	Mitigating mistrust against the sharing economy
CAR01	Yes	Yes				Yes	
RIDE01	Yes			Yes			Yes
RIDE02	Yes		Yes		Yes		Yes
SCOO01			Yes			Yes	Yes
SPA01	Yes	Yes	Yes	Yes	Yes	Yes	
CAR02			Yes				
FOOD01	Yes	Yes					Yes
GOOD01	Yes		Yes			Yes	Yes
RIDE03	Yes	Yes			Yes		Yes
FOOD02	Yes			Yes	Yes		
RIDE04			Yes			Yes	Yes
CROW01			Yes	Yes			Yes
CLO01		Yes		Yes			Yes
TOY01	Yes						Yes
GOOD02	Yes	Yes	Yes				
BIKE01	Yes		Yes		Yes	Yes	
ACCO01			Yes				Yes
FURN01	Yes	Yes		Yes		Yes	Yes
FOOD03	Yes	Yes			Yes	Yes	
BIKE02	Yes	Yes	Yes		Yes		
GOOD03			Yes				Yes
SPA02	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FOOD04	Yes	Yes	Yes	Yes		Yes	
CAR0203	Yes	Yes			Yes	Yes	Yes
RIDE05	Yes	Yes	Yes	Yes		Yes	
FOOD05	Yes		Yes		Yes		Yes
GOOD04			Yes				Yes
RIDE06	Yes	Yes					Yes
CLO02	Yes	Yes					Yes
2		Yes	Yes		Yes		Yes
VAN01	Yes						Yes

exemplifying pro-environmental behavior, the founder of a coworking space described how they implicitly influence their co-workers by implementing and enforcing a circular economy work experience:

Everything here is second-hand and reusable. We have five recycling stations. The moment you walk in, there is a little bit of conditioning. I think that is what we encourage all our spaces to be, so we develop guidelines around how you make coworking circular. (SPA01)

4.3. Reframing the sustainability paradigm

Our data find that sustainable entrepreneurs deliberately engage in *reframing the sustainability paradigm* of the sharing economy. Extant research identified four main sustainability paradigms (Zagonari, 2016) as follows: weak sustainability, growth, de-growth, and strong sustainability. When explaining how they advocate sustainability in their ecosystem, our respondents often referred to their dedicated ambition to transform the sharing economy from a weak sustainability paradigm (i. e., one that meets their needs) into a strong one (i. e., one that enables future generations to have their needs met in the same way as the current generation's). This ambition became salient when sustainable entrepreneurs described their desire to return the sharing economy to "...a serious collaborative economy" (GOOD01). Throughout our interviews, we furthermore observed how sustainable sharing ventures face challenges from the recent evolution of the sharing economy, which developed from an altruistic movement to a market-oriented business environment. Related research has found that sustainable entrepreneurs have substantial disadvantages in comparison to for-profit businesses, such as higher information asymmetries and regulatory barriers, or they face difficulties in achieving market breakthroughs (Cohen and Winn,

2007; Dean and McMullen, 2007; Schaltegger and Wagner, 2011). Moreover, recent studies found that sustainable entrepreneurs have to handle strong market pressures that threaten their ventures' survival, which results from the sharing economy's rising economic logic driven by dominant competitors like Airbnb and Uber (Zvolska et al., 2019). While these powerhouses grow at exponential rates, their business practices weaken the original sustainability promise of the sharing economy. Currently, the sharing economy is profoundly transformed by the effect of "Uberization" and the "Uber Syndrome" (Dreyer et al., 2017), which emphasizes the negative consequences of sharing for sustainable practices. Airbnb, for instance, was accused of inadequate regulation of hosts and guests (Coldwell, 2014), and Uber used the illegal software "Greyball" to evade law enforcement (Wong, 2017). However, the sharing economy is gradually dividing into two groups: for-profit ventures versus sustainable ventures (Pankov et al., 2019). Hence, sustainable ventures have a hard time advocating their cause in so contested a field. We found that, as a response, sustainable sharing entrepreneurs have started to reframe the sustainability paradigm of the sharing economy by *engaging in political action* and *mitigating mistrust against the sharing economy*.

In the case of *engaging in political action*, many of our respondents described how they engage in political actions to draw public attention to sustainability challenges. Related to this, the future evolution of sustainable ventures in the sharing economy relies heavily upon dedicated political support from stakeholders and policy-makers (Etter et al., 2019; Pankov et al., 2019). This support is needed to ensure that the sharing economy continues to grow "in the shadow of the law" (Katz, 2015), p. 61). Driven by their motivation to foster sustainability, our respondents report that they are building partnerships with cities for sustainability projects, they share knowledge about sustainable business

practices, and they cooperate with political parties to develop sustainability strategies. Our analysis shows that sharing ventures work specifically with policy-makers from their countries' Green parties to influence the business regulations in their industries. For example, some sharing ventures invest in policy actions aiming at developing strategies for "...how Germany can be more sustainable" (FOOD03), and a furniture sharing venture utilizes its regional power to draw attention to sustainable business practices:

We wrote an action paper together with the Greens about how social entrepreneurship can be better supported [...]. We want to share the idea and also exert political influence [...]. There are some initiatives aimed at supporting start-ups, but they are all about digitization. In the initiatives that we are part of, we want to give ourselves a voice and say that there is more in the start-up scene. There is more diversity. (FURN01)

Regarding the state of uncertainty about the present tensions and contradictions around the values and attributes of the sharing economy, we observed that sustainable entrepreneurs engage in *mitigating mistrust against the sharing economy*. The ambiguity of the field results in sustainable entrepreneurs having to distance themselves from the sharing economy players who are oriented purely toward profit. For instance, our respondents specified that they inform the involved stakeholders about the differences between sustainable sharing and share-washing practices, they emphasize the distinctiveness of the sharing economy and collaborative consumption, and they participate in roundtables to reduce anxiety about uncontrolled sharing activities. We found that sustainable sharing ventures highlight their sustainable business practices by explicitly referring to their distinctive values that contrast with those of economic powerhouses such as Airbnb and Uber. Our data suggest that sharing entrepreneurs enact these practices to counter the reputational damage that the dominant actors cause to the sustainability claim of the sharing economy. For instance, in the case of a scooter-sharing venture, the founder described how they engage with city authorities to maintain their support of sharing activities, despite negative experiences in the past:

There was a lot of discussion and press articles around the entire topic of bike-sharing, especially in Munich. City councils are afraid that it gets a bit rough or disorganized in their city. That is why we are participating in round tables to alleviate their concerns. (SCOO01)

5. Discussion and conclusion

Entrepreneurial ecosystems represent self-sufficient systems of interrelated institutions and their environments, in which entrepreneurs are the central actors shaping the long-term evolution of the ecosystem. Understanding the role and impact of entrepreneurial actors on the shared values, norms, and business practices of entrepreneurial ecosystems constitutes a central puzzle in the literature (Audretsch et al., 2019; Malecki, 2018; Muñoz and Cohen, 2017b; Spigel and Harrison, 2018). To address this, we use a micro-level research perspective in our study to investigate how sustainable entrepreneurs advocate for the sustainability cause in the sharing economy. Relying on 31 in-depth interviews with the founders and senior managers of sustainable sharing ventures, we looked specifically at the micro-level practices that these actors use to facilitate sustainability in their respective ecosystems. In our thematic analysis of the evidence, we examined the sets of sayings, doings, and actions commonly carried out by the entrepreneurial actors in our sample. Our findings show that sustainable entrepreneurs rely on three distinct sets of micro-level practices, namely: building a supportive environment, disrupting normative standards, and reframing the sustainability paradigm. Through these micro-level practices, sharing entrepreneurs define a common notion of sustainability in the

sharing economy. Our resultant framework substantiates the central role of sustainable entrepreneurs in the evolution of ecosystems, and it delineates the distinct micro-level practices they enact to advance the sustainability cause. In sum, our framework contributes to a better understanding of the sharing economy, and it adds further insights to the emerging theory on sustainable entrepreneurship and entrepreneurial ecosystems (Audretsch et al., 2019; Schaltegger and Wagner, 2011; Spigel, 2017).

5.1. Implications for theory

The delineation of the distinct micro-level practices in our framework contributes to a better understanding of entrepreneurial ecosystems and the sharing economy in several ways. First, our detailed insights on the sayings, doings, and actions that constitute the three micro-level practices contribute to the literature on entrepreneurial ecosystems. Our framework shows how the building, disrupting, and reframing practices of sustainable entrepreneurs conjointly shape and establish the sustainability dimension in entrepreneurial ecosystems. These three micro-level practices of sustainable entrepreneurs are reinforced by their deep-rooted determination to achieve the desired outcome of facilitating sustainability for business and society. Our findings offer ample empirical evidence for the significant role played by these sustainable entrepreneurs in the development of ecosystems that operate on the basis of sustainability principles. By using the micro-level practice lens, our findings complement the predominant macro-level focus of the extant ecosystem research. Moreover, our findings address the call to generate insights into the development of shared goals in entrepreneurial ecosystems (Autio et al., 2018). Our evidence shows that sustainable entrepreneurs actively involve multiple ecosystem actors in the sustainability cause. They do so with the clear ambition of nurturing sustainable values, norms, and practices within their respective entrepreneurial ecosystems, and ultimately promote a more sustainable way of living for the wider society.

Second, our study findings provide important insights for the micro-level factors that influence the dynamic development of entrepreneurial ecosystems. Extant studies have started to examine how different actors within the ecosystem affect its development and evolution. However, most research in this area has focused on the institutional level of influence on ecosystem evolution. For example, the studies of Fichter and Tiemann (2020), Goswami et al. (2018), Motoyama and Knowlton (2017), and Cruz-Ros et al. (2017) focused on the diverse effects of incubators, accelerators, and policy initiatives on the development of the entrepreneurial ecosystem. Our study complements these macro-level analyses of institutional actors by offering a fine-grained investigation into how the micro-level practices of entrepreneurial actors shape the dynamic evolution of the entrepreneurial ecosystem's sustainability dimension. The framework delineates that sustainable entrepreneurs rely on combinations of sayings, doings, and actions to advance the sustainability cause. These combinations commonly constitute the three micro-level practices in our framework; that is, they build a supportive environment, disrupt normative standards, and reframe the sustainability paradigm. As such, our study reveals the role played by a central ecosystem actor (i.e., the entrepreneur) at the micro-level. Our detailed description of the micro-level factors that originate in the practices of sustainable entrepreneurs delivers valuable complementary insights for the theorizing of the factors that influence the evolution of entrepreneurial ecosystems. Our framework shows that adopting a micro-level perspective is critical to fully capturing the role and impact of individual actors on the development of a dynamic ecosystem.

Complementing our insights into the entrepreneurial ecosystem literature, our results offer two crucial implications for theorizing the phenomenon of the sharing economy. First, our results help to shed light on the ongoing discourse about the sustainability dimension of the sharing economy as an evolving field (Acquier, Carbone., & Vasseur, 2020; Etter et al., 2019)). The discourse about the fundamental

principles undergirding sustainability is profoundly divided and conflictual, and it leads to opposing viewpoints about whether the consequences of the rapidly growing sharing ventures are widely beneficial or deeply damaging to the broader society and environment (Acquier et al., 2017; Ahsan, 2020; Frenken and Schor, 2017; Martin, 2016; Murillo et al., 2017). Extant empirical studies investigating this critical aspect of the sharing economy have predominantly concentrated on the large flagship ventures, such as Uber and Airbnb, to get a better understanding for the sustainability-related impact of sharing activities and practices within the field and on broader society (Geissinger et al., 2019; Laurell and Sandström, 2017). Parguel et al. (2017), [p. 55] concisely stated that we need to get more diversity and depth in the investigation of the sharing economy, as "the time has come for the utopian view of the sharing economy to enter the second phase of relative maturity." The depicted micro-level practices in our framework answer this call by representing the sayings, doings, and actions of small and medium-sized sharing ventures. Our study's findings therefore provide a broader perspective that creates a more inclusive understanding of the practices and related motivations of sharing ventures. By focusing on the micro-level practices of the entrepreneurs of small and medium-sized ventures, our results respond to the call to examine the sharing economy as a phenomenon that goes beyond the dominant flagship ventures.

Furthermore, as part of the dissenting scholarly view of the sharing economy, recent studies have started to systematically examine the diverse factors and boundary conditions influencing the sustainability dimension in the sharing economy (Curtis and Lehner, 2019; Ertz and Leblanc-Proulx, 2018; Geissinger et al., 2019). We contribute to this specific stream of research by providing ample empirically-grounded insights into how sustainable entrepreneurs address sustainability concerns through distinct sets of micro-level practices. As a result, the sayings, doings, and actions enacted by sustainable sharing ventures have a purpose over and above that of simply advocating sustainability in the sharing economy setting. Our evidence suggests that these ventures deliberately construe their practices to defend and strengthen their position in a competitive environment that increasingly risks losing credibility as regards its original sustainability dimension (Ahsan, 2020; Frenken, 2017; Martin, 2016; Parguel et al., 2017). Our findings show that sustainable sharing ventures respond to this challenge by actively becoming involved in policy-making processes, and by working to mitigating the mistrust levelled against the sharing economy. These micro-level practices aim to counteract the reputational damage generated by the dominant sharing venture flagships' never-ending quest for aggressive growth at the expense of their long-term sustainable values. Our framework describes and specifies the distinct practices that sustainable sharing ventures regard as impactful drivers of sustainability in the sharing economy. In conclusion, the micro-level practices identified in the framework reflect the underlying conviction of the study's respondents that they have responsibility for transferring deeply held sustainability values to the sharing economy at large, so that sustainable living becomes the norm.

5.2. Implications for practice

Our study provides several recommendations for practice. First, our resultant framework shows, in sizeable detail, how sustainable sharing entrepreneurs enact three distinct micro-level practices to advocate the sustainability cause. The framework provides guidance for entrepreneurial actors aiming to grow their ventures in a more sustainable way. The three micro-level practices summarize the sayings, doings, and actions that entrepreneurs can draw from to both address the sustainability challenge and to incite the actors in their respective ecosystems to adopt a more sustainable way of venturing. Our study suggests that the conjoint effect of supportive, disruptive, and reframing practices of sustainable entrepreneurs supports the purpose of advocating sustainability. The combined set of micro-level practices helps to create a

normative pressure in the long run, which in turn incentivizes all ventures to act more sustainably.

Furthermore, our results highlight the crucial role of stakeholders in supporting the sustainability cause. Sustainable ventures must involve multiple stakeholders in their cause, such as employees, customers, suppliers, and partners. To steer an entire ecosystem towards sustainability requires the support of a large group of actors, all pursuing the same purpose. Also, it is critical for sustainable entrepreneurs to connect and bond with other sustainable ventures if they are to move past their ventures' respective objectives to build a more stable and impactful base for the common good. Our study shows that sustainable entrepreneurs tend to be supportive when it comes to creating relationships with sharing ventures that pursue similar values. A shared sense of purpose encourages sustainable entrepreneurs to develop strong ties with each other and significantly strengthens awareness of and respect for the sustainability cause in the broader ecosystem. Finally, our study shows that political intervention is a necessary action for encouraging the long-term success of sustainable ventures in business and society. The reason being that sustainable entrepreneurs have to handle more venture risks because their business practices result in higher barriers for market breakthrough, regulatory particularities, and higher information asymmetries (de Lange and Valliere, 2020; Nadeem et al., 2020; Schaltegger and Wagner (2011); Winn, 2007; Dean and McMullen, 2007)). Our evidence highlights that sustainable entrepreneurs require specific supportive systems if their ventures are to survive in these less favorable competitive conditions.

5.3. Limitations and future research

Our inductive study provides ample evidence and a detailed description of the methodological procedures we used. This ensures the credibility of our findings and empirically supports the resultant theoretical framework (Suddaby, 2006). However, like all research, our study has limitations, some of which form the basis for future research. First, our findings rely on the accounts of sustainable entrepreneurs operating in the sharing economy in Germany. Our purposive sampling logic and the resultant small sample size restrict the transferability of our study findings. Although we purposively included a set of ecosystems from different industries and we actively incorporated sharing ventures of various sizes in our sample, future research in differing contexts or countries might deliver complementary insights into the micro-level practices of sustainable entrepreneurs. Second, while the results of our inductive study are not statistically generalizable, the theoretical framework is analytically transferable to theorizing on micro-level practices in entrepreneurial ecosystems other than the sharing economy (Gioia et al., 2013). That is, the detailed insights we gained on the sayings, doings, and actions of the entrepreneurial actors generate in-depth theoretical inferences about the general pattern of practices that enable entrepreneurial actors to pursue set objectives.

Relating to the epistemological lens of our study, we suggest entrepreneurial ecosystem scholars adopt different methodological approaches to capture the interactions within an ecosystem, such as network analysis (Neumeier and Santos, 2018), the principal investigator-centered governance framework (Cunningham et al., 2019), or a multi-dimensional entrepreneurial ecosystem scale (Liguori et al., 2019). Finally, although our study illustrates how sharing entrepreneurs enact distinct micro-level practices to advocate for the sustainability cause in their ecosystems, our study findings do not cover the frequency or intensity of the related actions and their respective interrelations (Knockaert et al., 2014). It might, therefore, be valuable to develop measurable constructs to cover the density and multi-sidedness of interactions unfolding in the dynamic evolution of entrepreneurial ecosystems.

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.techfore.2021.120654](https://doi.org/10.1016/j.techfore.2021.120654).

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