RESEARCH ARTICLE



Sustainable business models in 'lighthouse' small to medium enterprises

Wendy Stubbs¹ (D), Megan Farrelly¹ (D), Kyra Fabianke¹ (D), Sarah Burch² (D) and Pavit Ramesh¹ (D)

¹Human Geography, School of Social Sciences, Clayton, VIC, Australia and ²Department of Geography and Environmental Management, University of Waterloo, Waterloo, ON, Canada

Corresponding author: Wendy Stubbs; Email: wendy.stubbs@monash.edu

(Received 16 November 2022; revised 25 July 2023; accepted 22 August 2023)

Abstract

Addressing major global environmental and social challenges requires transformation of the private sector. Small- to medium-sized enterprises (SMEs) constitute 90% of private organisations globally, resulting in calls for research into the strategic roles SMEs can play in shaping sustainable futures through adopting sustainable business models (SBMs). The purpose of our study is to understand the factors that allow SMEs to successfully adopt SBMs. We used an exploratory qualitative approach drawing on interviews with SMEs implementing SBMs. Our findings extend contemporary insights by revealing the important role of the external support ('enabling') environment, and identifying—potentially transformative—capabilities that can help steer SMEs' transitions to SBMs. These include persistence, tenacity, flexibility, adaptability, and a willingness to learn and fail. They enable SMEs to successfully operate in times of uncertainty and rapid changes in the external environment, and respond to new requirements through changes to their business models.

Keywords: sustainable business model (SBM); small to medium enterprises (SMEs); transformative capabilities; enabling environment; sustainable transformations

Introduction

How to generate sustainable business transformations is a significant scholarly challenge and an urgent research priority (Burch et al., 2016; Cusmano, Koreen, & Pissareva, 2018). Research to date has primarily focused on large firms' sustainability approaches and business model innovation (Garzella, Fiorentino, Caputo, & Lardo, 2021), because it was assumed that transforming large firms will address the major global environmental and social challenges (Ortiz-Avram, Domnanovich, Kronenberg, & Scholz, 2018). While small- to medium-sized enterprises (SMEs) face more challenges than large companies in transforming their businesses (Chen, Chakraborty, Xiong, Scaringella, & Descubes, 2021), the role of SMEs in a sustainable future is crucial as they are significant contributors to economic, social, and environmental outcomes. It is important to study SMEs for several reasons: they are the most common form of business (Westman, Luederitz, Kundurpi, Mercado, & Burch, 2022), making up approximately 90% of businesses worldwide (World Bank, 2022); they play a major role in job creation and global economic development, accounting for 50% of employment worldwide and up to 40% of national income (gross domestic product [GDP]) (World Bank, 2022); their collective environmental impact outweighs the combined environmental impact of large firms (Burch et al., 2016); SMEs may have better potential for driving sustainable transformations

© The Author(s), 2023. Published by Cambridge University Press in association with the Australian and New Zealand Academy of Management. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (https:// creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

(Schaltegger, Lüdeke-Freund, & Hansen, 2016b); sustainable innovation is necessary for SMEs' long-term survival (Bos-Brouwers, 2010); and there is potential for SME-led sustainable entrepreneurship to contribute to market transformations (Westman et al., 2022).

Furthermore, SMEs are increasingly expected to proactively address sustainability issues (Macchion, Toscani, & Vinelli, 2023; Nudurupati et al., 2022). Although SMEs lag behind in commitment to sustainability (Cassells & Lewis, 2011), they harbour an enormous untapped potential to contribute to sustainable development (Burch, 2018; Kundurpi, Westman, Luederitz, Burch, & Mercado, 2021) and are well suited to the development and application of sustainable business models (SBMs) (Macchion, Toscani, & Vinelli, 2023; Schaltegger, Lüdeke-Freund, & Hansen, 2016b). SBMs are considered the best strategies to improve business sustainability (Hernandez-Chea, Jain, Bocken, & Gurtoo, 2021; Inigo, Albareda, & Ritala, 2017). As our research shows, adopting SBMs can also lead to tangible benefits and new opportunities for SMEs.

However, there are significant gaps in knowledge about how SMEs can contribute to sustainable development and transformations through adopting SBMs. The literature on SBMs remains largely conceptual and there is little understanding of the processes of SBM adoption (Evans et al., 2017) and development (Macchion, Toscani, & Vinelli, 2023; Roome & Louche, 2016) in SMEs. van Bommel (2018) reinforces there is limited empirical insight regarding SMEs' capacity to adopt SBMs. Gaps also exist in understanding the steps (Frishammar & Parida, 2019) and capabilities (Preghenella & Battistella, 2021) required for SMEs' successful transformation to an SBM. Miller, McAdam, Spieth, and Brady (2021) conclude little is known about SMEs' business models from both a theoretical and practical perspective. Further, Burch et al. (2016) identified that SMEs as innovators in sustainability transformations is under-studied and under-theorised. In response to these gaps in knowledge, there are growing international calls for research into the strategic roles SMEs can play in shaping sustainable futures (Burch, 2018; Cusmano, Koreen, & Pissareva, 2018) through adopting SBMs (Burch et al., 2022). Evans et al. (2017, p. 598) call for empirical research on how SMEs can 'innovate their business models.'

Guided by these knowledge gaps, our paper provides empirical analyses from 'lighthouse' or exemplary cases of SMEs who have embedded SBMs. These lighthouse cases can provide important insights into the factors that allow SMEs to successfully adopt SBMs. Our research question is: What do lighthouse SMEs teach us about how SMEs can successfully adopt SBMs?

We used an exploratory qualitative approach to address the research question and conducted 17 interviews with 14 SMEs that implement SBMs. The results of the interview analysis highlight lessons learnt by SMEs and the key factors influencing SMEs' implementation of SBMs, including the enablers and inhibitors of their SBM, skills and capabilities to support the SBM, financial and sustainability trade-offs, and the major challenges and opportunities they faced.

The following section reviews the contemporary scholarship regarding SMEs' engagement with sustainable business practices and models. We then present the research methods followed by the research findings and conclude with a reflection on the implications for a broad adoption of SBMs by SMEs.

Literature review

Scholars, politicians, and practitioners increasingly recognise that traditional business models are unsustainable (Macchion, Toscani, & Vinelli, 2023; Scarpellini, 2022). Thus, companies are rethinking their business model to address sustainability challenges (Macchion, Toscani, & Vinelli, 2023). SBMs support a radical shift in the conceptualisation of the business model to reflect the complexity of the social and ecological systems in which businesses operate (Upward & Jones, 2016). We draw upon Stubbs and Cocklin's (2008, p.103) seminal definition of an SBM: an organisation's business model is 'transformed, rather than supplemented, by social and environmental priorities ... where sustainability concepts shape the driving force of the firm and its decision-making'. This is a fundamentally different endeavour to implementing isolated sustainable business practices (such as reducing waste

or emissions), but rather addresses the underlying question and organisation of the firm. As such, sustainability cannot be simply an 'add on' (Stubbs & Cocklin, 2008) but rather should guide businesses to seek to 'do no harm' (minimise social/ecological destruction), 'do good' (generate social and ecological benefits), and 'do well' (be profitable) (Upward & Jones, 2016). To provide context for this research study (what is already known about SMEs' adoption of SBMs), we review the extant literature on SBMs and SMEs, the barriers and drivers to adopting SBMs, and the capabilities required for SMEs to innovate their business models for sustainability.

SBMs and SMEs

SBM literature primarily focusses on large businesses (Durst, Hammoda, Nguyen, & Moieny Asl, 2021). This is problematic, as the distinctive organisational attributes of SMEs require a 'tailored approach to design, experiment and innovate their business models' (Cosenz & Bivona, 2021, p. 658). SMEs are structurally and culturally different to large firms, meaning large firms' sustainability approaches and practices cannot easily be applied to SMEs (Factor & Ulhøi, 2021). Evidence indicates SMEs are more flexible, nimble, and adaptable enterprises (Bocken, Short, Rana, & Evans, 2014; Chen et al., 2021; Macchion, Toscani, & Vinelli, 2023).

The heterogeneity of SMEs increases the complexity for conceptualising and exploring SME business models (Miller et al., 2021). While a small number of case studies indicate that SMEs can successfully adopt SBMs despite resource scarcity (e.g., Macchion, Toscani, & Vinelli, 2023; Schaltegger, Lüdeke-Freund, & Hansen, 2016b; Stubbs, 2017), there are few studies examining how SBMs work in the 'real world', especially in SMEs (Battistella, Cagnina, Cicero, & Preghenella, 2018). Most research to date has focused upon the barriers and drivers to SMEs pursuing sustainable business practices, and little is known about SMEs' approaches to SBM innovation.

Barriers and drivers

A lack of resources, coupled with difficulties in accessing finance (Andrieş, Marcu, Oprea, & Tofan, 2018; Koirala, 2019), is often cited as a main barrier for SMEs' engagement with sustainability (Factor & Ulhøi, 2021; Ortiz-Avram et al., 2018). SMEs often struggle to run their business as evidenced by high failure rates (Everett & Watson, 1998) and limited time to take on additional activities related to sustainability (Bevan & Yung, 2015; Campos, 2012). Insufficient in-house knowledge and skills relevant to sustainability issues, alongside a lack of access to external expertise and advice, exacerbate the challenges SMEs face in implementing more sustainable business practices (Aykol & Leonidou, 2015; Oduro, Bruno, & Maccario, 2021). Consequently, additional costs and investments, increased bureaucracy, and the time and labour intensity associated with implementing sustainable practices present critical barriers to SME sustainability (De Steur, Temmerman, Gellynck, & Canavari, 2020). However, while capital plays an important role, resource scarcity and difficult economic circumstances do not automatically hinder SMEs pursuing SBM innovations (Halme & Korpela, 2014).

An important factor that can negatively influence SMEs' uptake of SBMs is an unfavourable external regulatory and policy environment (Aykol & Leonidou, 2015; Long, Looijen, & Blok, 2018). Government policies conventionally target larger organisations (Blundel, Monaghan, & Thomas, 2013) and present a complex and confusing regulatory environment for SMEs (Factor & Ulhøi, 2021). SMEs are often excluded from traditional political participation (Westman, McKenzie, & Burch, 2020), and the lack of government support negatively impacts SMEs' commitment to sustainability (Aykol & Leonidou, 2015). Long, Looijen, and Blok (2018) propose owner-managers establish good relationships and a supportive ecosystem around the firm to mitigate these challenges.

Despite these challenges, intrinsic motivation and personal values drive some SMEs to pursue sustainability such as through sustainable entrepreneurship (Bocken, 2015; Weissbrod & Bocken, 2017). SME owner-managers' behaviour, beliefs, values, and attitudes are determining factors in sustainability action—more so than SMEs' size, resource configuration, or industry type (Jenkins, 2009;

Ortiz-Avram et al., 2018). Improving the workplace for employees, internal management, and social responsibility can motivate SME owner-managers to invest in sustainability (Burch et al., 2016). Employees, external stakeholders, and local networks also play a crucial role in orienting SMEs to sustainability (Luederitz, Caniglia, Colbert, & Burch, 2021).

An entrepreneurial style, lean and flexible organisational structures, and the strong role played by the owner-manager and their values may better situate SMEs for radical business model innovations (Klewitz & Hansen, 2014; Long, Looijen, & Blok, 2018). SMEs' smaller and less rigid organisational structures and the high involvement of owner-managers in the day-to-day operations (Burch et al., 2016; Hansen & Klewitz, 2012) enable faster decision-making and the ability to respond quickly to market changes (Battistella et al., 2018). The likely absence of shareholders may also provide more opportunity for sustainable activities in SMEs by freeing owner-managers from short-term thinking and related pressures such as quarterly reports (Factor & Ulhøi, 2021; Jenkins, 2004). This can provide SMEs with autonomy over resource allocation (Cambra-Fierro & Ruiz-Benítez, 2011). As a result, SMEs can provide a context for radical business model innovations (Ebben & Johnson, 2005; Long, Looijen, & Blok, 2018). Christensen, Raynor, and McDonald (2015) propose SMEs could disrupt entire industries through innovative and creative entrepreneurship despite having fewer resources than established mass-market players.

Nevertheless, implementing an SBM is complex and challenging for it 'is a real process of transformation that must be supported by a substantial commitment to sustainability that involves the organisation in its entirety' (Macchion, Toscani, & Vinelli, 2023, p. 3). While there are examples of SMEs successfully adopting SBMs, such as B Corps, social enterprises, and sustainability entrepreneurs, little is known about the types of capabilities and skills SMEs need to successfully navigate this process.

Capabilities

Miller et al. (2021) reinforce the importance of capabilities in business model innovation. They found that dynamic capabilities, external knowledge management capabilities, and absorptive capacity (competencies, organisational factors, and inter-organisational linkages (Aboelmaged & Hashem, 2019)) support SMEs in innovating their business models. Further, the ability to generate new and creative strategies to adapt to changes in the business environment through a set of complex but identifiable processes (dynamic capabilities) characterises the most proactive sustainability strategies of firms (Martín-Tapia, Aragón-Correa, & Rueda-Manzanares, 2010). This makes continuous learning critical for changing business models (Achtenhagen, Melin, & Naldi, 2013; Roome & Louche, 2016).

Beutell, Kuschel, and Lepeley (2021) argue businesses operate in an increasingly uncertain, complex, and ambiguous environment which makes constructive learning experiences, and the ability to deal with failure, critical tools for resilience, survival, and success. As entrepreneurship is the field of human activity most exposed to the risk of failure (Beutell, Kuschel, & Lepeley, 2021) and SMEs already operate under a higher degree of uncertainty compared to larger firms (Miller et al., 2021), SMEs need to develop the ability to deal with failure and to continuously adapt their abilities to changing circumstances.

Accepting failure as a necessary condition to advance and grow is a critical step to transform negative experiences into positive driving forces and failure into success (Beutell, Kuschel, & Lepeley, 2021). This mindset is crucial for experimentation as failure is a natural and often useful outcome of the experimentation process (Chesbrough, 2010). Experimentation, in turn, is crucial for SBM innovation (Evans et al., 2017) and involves a willingness to experiment with ideas and to build new practices (Roome & Louche, 2016). However, Battistella et al. (2018) note that due to their limited resources as well as external barriers, SMEs possess a reduced capacity for experimenting with business model innovation. If SMEs are to leverage the positive impact of sustainable practices on financial performance (Bartolacci, Caputo, & Soverchia, 2020) and transition towards SBMs, they need to improve their innovative capacity. According to Jenkins (2009), SME owner-managers require specific skills such as learning and networking to support proactive, responsible, and sustainable strategies. Soft skills, such as effective communications, creativity, decision-making, agility, and perseverance, are increasingly critical for survival in uncertain and volatile environments. They are developed through interactions with friends, parents, children, partners, co-workers, customers, team members, supervisors, and leaders (Beutell, Kuschel, & Lepeley, 2021). Scholars stress the importance of collaborative capabilities, leveraging network partners, and the role of intermediaries as critical success factors that can aid innovation and assist with overcoming size-based limitations and ultimately support a transition to an SBM (Durst et al., 2021; Miller et al., 2021; Stubbs, Dahlmann & Raven, 2022).

Finally, transitioning to an SBM requires strong change capabilities (Sommer, 2012), such as clear guidance and leadership (Long, Looijen, & Blok, 2018). Sommer (2012) highlights the importance of changing mindsets which necessitates strong leadership capabilities. Similarly, Roome and Louche (2016, p. 29) reinforce the significance of strong commitment among management to participating and communicating across networks, concluding that transformation unfolds through a culture of 'questioning, learning, testing, and innovating linked to strong support for empowerment of employees'.

While these skills and capabilities are regarded as critical enablers of SBMs, Preghenella and Battistella (2021) conclude there is scant knowledge of the organisational capabilities needed to implement an SBM. This makes it difficult to draw generalisable conclusions and to provide SMEs with advice on how to develop capabilities to implement SBMs.

Although SBM research is evolving rapidly, existing literature is primarily conceptual with a lack of empirical studies (Roome & Louche, 2016; van Bommel, 2018). How SMEs can develop and implement SBMs is underexplored (Geissdoerfer, Vladimirova, & Evans, 2018; Macchion, Toscani, & Vinelli, 2023) and much remains to be learned about SMEs' business models both theoretically and practically (Miller et al., 2021). This paper addresses these gaps in knowledge by examining how 'lighthouse' SMEs successfully adopt SBMs through exploring the enablers and inhibitors, key skills and capabilities, trade-offs, and major challenges and opportunities.

Research methods

This study used an exploratory qualitative approach drawing on semi-structured interviews with key individuals in SMEs implementing SBMs. Exploratory qualitative studies are useful where little is known about a phenomenon (Belz & Binder, 2017). We employed an interpretivist mode of inquiry to gain insights from 'insiders' (Blaikie, 2000). An interpretivist mode lends itself to engaging with insiders through interviews, to draw out the views and meanings they ascribe to their social realities. Figure 1 summarises the research methodology.

Data selection

We used the Australian Bureau of Statistics' (2020) definition of SMEs: micro-businesses employ between 1 and 4 people; small businesses employ between 5 and 19 employees; and medium-sized business employ between 20 and 199 employees. Our focus on lighthouse SMEs, those considered as sustainability leaders, required a purposive sampling method (Stake, 2000). We first reviewed scholarship for examples of SBMs adopted by SMEs, which identified B Corps, social enterprises, and circular economy models (Geissdoerfer, Vladimirova, & Evans, 2018; Pizzi, Leopizzi, & Caputo, 2022; Schaltegger, Hansen, & Lüdeke-Freund, 2016a; Stubbs, 2017, 2019). B Corps are for-profit businesses certified by B Lab to meet rigorous standards for environmental and social performance, accountability, and transparency—using 'the power of business to solve social and environmental problems' (Stubbs, 2017, p. 299). B Lab have certified over 470 B Corps in Australia, representing a wide range of industries from accounting to waste management. Social enterprises are focused on having a social impact through generating and investing profits to address societal issues (Geissdoerfer, Vladimirova,

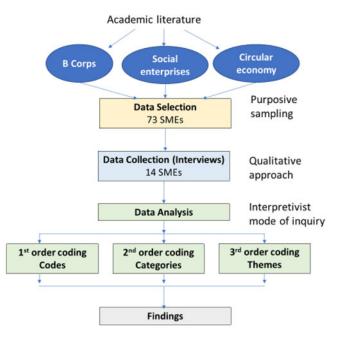


Figure 1. Research methodology.

& Evans, 2018). Social Traders estimate there are over 12,000 social enterprises in Australia, with about 450 certified, operating across a broad spectrum of industries, such as childcare, hospitality, housing, education, and insurance. A circular economy model minimises resource input, waste, emissions, and energy leakage (Geissdoerfer et al., 2017) by reusing, repairing, and remaking (rather than just recycling) (Bocken et al., 2014; Pizzi, Corbo, & Caputo, 2021). Circular companies have to rethink their way to do business (Pizzi, Leopizzi, & Caputo, 2022). While there are no estimates of the number of circular SMEs in Australia, the Australian Circular Economy Hub reports a sharp increase in uptake in the last few years.

We focused on SMEs operating in metropolitan Melbourne, Australia, where there is a concentration of SMEs and where the researchers are located. We chose Australia because SMEs are considered to be key to driving growth in Australia; they are the largest employer; they contribute more than half of the national GDP; and they make up 99.8% of all Australian businesses (CSIRO, 2022). Australia also has a significant concentration of B Corps, social enterprises, and SMEs implementing circular economy models.

First, we compiled a list of Melbourne-based SMEs from B Lab's (B Corp certifying body) directory of certified B Corps, Social Traders' database of certified social enterprises, Climate Active's database of certified organisations, Victorian Government Social Enterprise Strategy, and Australian Circular Economy Hub. Next, we reviewed SME sustainability award winners from the Sustainability Victoria awards, Premier's Sustainability Awards, and Banksia Sustainability Awards. Finally, we used snowball sampling by asking participants for referrals to other SMEs who they considered leaders in sustainability. This resulted in 73 SMEs that were contacted through email or LinkedIn. Fourteen SMEs agreed to participate (five micro, five small, and four medium—see Table 1). We interviewed one person from the micro and small SMEs and two people from each of the three largest SMEs, with a total of 17 interviews. Eleven SMEs were certified B Corps, eight identified as social enterprises, and four as circular economy (some identified as a combination of these). We aimed to interview the founders of the SMEs as they have an in-depth understanding of the SMEs' business model and their experiences, challenges, and processes in implementing their SBM. They have the knowledge

Code	Size	Established	Type of SME	Background	Title
S1	Small	1998	B Corp; Social enterprise	Services to support social sector	Founder and CEO
S2	Small	2002	B Corp	Technology advisory services	Operations Manager
S3	Small	2017	Circular economy	Fashion	Founder
S4	Small	2012	B Corp	Advisory services in aid sector	CEO and Co-Founder
S5	Small	2007	B Corp	Financial services	CEO
M1	Micro	2019	Social enterprise; B Corp; Climate Active carbon neutral	Telecommunications services	Founder
M2	Micro	2018	Circular economy	Food & beverage; manufacturing	Business Development Lead
М3	Micro	2016	Social enterprise	E-waste recycling; food rescue	Co-founder
M4	Micro	2005	B Corp; Social enterprise; Fairtrade	Apparel	Founder and Director
M5	Micro	2018	Social enterprise; undertaking B Corp certification	Sustainable bedding	Co-founder
ME1-1	Medium	2012	Social Enterprise; B Corp	Consumer goods—personal care	Global Head of Insights
ME1-2	Medium	2012	Social Enterprise; B Corp	Consumer goods—personal care	Co-founder
ME2-1	Medium	2004	B Corp	Consulting services	Project Manager
ME2-2	Medium	2004	B Corp	Consulting services	Managing Director
ME3	Medium	2008	Social enterprise	Consumer goods—personal care	Chief Impact Officer
ME4-1	Medium	2001	Circular economy	Architectural services	Co-founder & Design Director
ME4-2	Medium	2001	Circular economy	Architectural services	Co-founder

required to answer the interview questions. In some cases, the founder referred us to an employee who had been with the SME since the SME's early days. The roles of the participants included founder (10), CEO/managing director (2), and senior manager (5).

This study did not seek to achieve a representative sample of SMEs, but rather purposively focused on generating rich insights from SMEs who have direct experiences experimenting with and implementing SBMs. The small sample size was also due in part to impacts of COVID-19, as many SMEs indicated they were too busy 'surviving' to participate. One limitation of this study's exploratory qualitative approach is that it will not allow for generalisation to a population. However, this is not the intention of an exploratory research study, which aims to generate theoretical understanding that can then be tested in other contexts to establish its range of application (Blaikie, 2000).

Data collection

Two of the authors conducted the interviews. Our aim was to interview all participants face-to-face, but COVID-19 lockdown restrictions meant only one interview was face-to-face with 16 conducted

Table 2. List of interview questions

Questions
Can you provide a brief background on your business?
How would you describe your business model?
Why did you decide to adopt this type of business model?
What are the main social and/or environmental issues the business is addressing? Why?
What are the key business practices, or activities, that help you to achieve your SBM and social/environmental outcomes?
What are the main challenges/barriers/opportunities to implement your SBM and achieve your sustainability outcomes?
What are the most valuable or important factors for achieving your sustainability outcomes? Why?
Can you talk about any external resources or support you draw upon for the success of the SBM?
Can you talk about any trade-offs, or compromises, you may have experienced to advance your SBM and social/environmental outcomes?

via zoom. Interviews were conducted between November 2021 and September 2022 and ranged from 45 to 90 minutes. We found that zoom offered a similar experience to face-to-face interviews in generating rich insights into SMEs' experiences of SBMs. To prepare for the interviews, we reviewed each SME's website, relevant certification reports, and other publicly available information such as media coverage.

Semi-structured interviews allowed us to ask open questions, letting the participants speak until they had exhausted the topic. We asked participants about their business model, the social and environmental issues they address, and their business practices (see Table 2). The interviews were recorded (with permission) and transcribed. The transcribed interview was emailed to the participant for verification and transparency. Codes were ascribed to individual participants to ensure their anonymity (Table 1).

Data analysis

Informed by an interpretivist mode of inquiry, content analysis of each interview involved an iterative three-stage qualitative coding process to draw out key themes (Gioia, Corley, & Hamilton, 2012; Strauss & Corbin, 1998). First-order codes were grouped into categories (second-order coding) and categories into themes (third-order coding) (see Table 3 for codes, categories and themes).

Codes were derived from the interview data based on the actual words or terms used by the interviewees (which Strauss and Corbin (1998) refer to as in vivo codes) or by summarising the concepts discussed by the interviewees into themes (constructed codes). Coding included chunks of text at the phrase, sentence and paragraph level. The interview transcripts were uploaded into the NVivo software package for coding. The two authors who conducted the interviews initially coded three of the interviews and compared the coding results. Based on their review of their coding, they agreed on an initial coding structure. One author then coded the rest of interviews. The second person crossed-check the coding and some codes and categories were revised. We provided a transcript of the participant's interview to them as well as de-identified findings for their comment and feedback. This assisted in validating the research results.

Table 4 summarises the steps in the research process.

Findings

To understand what the lighthouse SMEs can teach us about how SMEs can successfully adopt SBMs, we first discuss why they adopted their business model to provide context (s4.1). We then explore

-			
Themes (third-order)	Categories (second-order)	Sample codes (first-order)	
SBM motivation	Credibility	Accreditation, governance, open doors	
	Doing some good	Change business, solve sustainability problems, legacy	
	Financial motives	Funding, can make money	
Supporters	Government supporters	CSIRO, local govt, Darebin council, Jobkeeper, ATO	
	NFPs & NGOs	Beyond zero emissions, charitable orgs, Wateraid	
	Industry & business	Peak bodies, local manufacturers, media	
	People supporters	Customers, staff, partners, mentors, community, third parties	
Inhibitors	Government inhibitor	Local, state, federal	
	Financial inhibitor	Finance sector, venture capital	
	People inhibitor	Residents action network, procurement people	
	Big business	Banks, supermarkets	
Skills	Business skills	Project management, sales & marketing, communications, people management	
	Technical skills	Design, IT, data analysis	
	Soft skills	Tenacity, persistence, adaptability, problem solving, facilitation, entrepreneurial, stakeholder relationships	
Trade-offs	Financial trade-offs	Reduced profits, reduced pay, increased costs, discounts, donations	
	Sustainability outcomes	Impact, prioritising outcomes, staff wellbeing	
Challenges	Resources	Money, time	
	COVID-19	Supply chain, customers, sales	
	People challenges	Employee burnout, government, clients	
Opportunities	Partnerships	NFPs, peak bodies, businesses	
	Customers	Growth, social procurement	
	Drive change	Business community, internal	

Table 3. Themes generated from the coding process with sample categories and codes

who and what enabled and inhibited the SMEs' implementation of their SBM (s4.2); the skills and capabilities they found most important (s4.3); any trade-offs they experienced through implementing their SBM (s4.4); and the major opportunities and challenges to successfully implementing their SBM (s4.5).

Reasons for adopting the SBM

We identified three interconnected reasons why SMEs adopted their SBM: for credibility, to 'do some good', and for financial reasons. Half of the participants stated they adopted their SBMs to 'do some

Table 4. Research process

Steps	Sources and details	
Determine research approach to address research question	Exploratory qualitative approach interpretivist mode of inquiry	
Define an SME	Australian Bureau of Statistics' (2020) definition of SMEs	
Identify types of 'lighthouse' SMEs	Review academic literature (B Corps, social enterprises, circular businesses identified)	
Select geographic location	Melbourne, Australia	
Compile list of B Corps, social enterprises and circular SMEs in Melbourne (purposive sampling)	B Lab directory of certified B Corps Social Traders' database of certified social enterprises Climate Active's database of certified organisations Victorian Government Social Enterprise Strategy Australian Circular Economy Hub Sustainability Victoria Awards Premier's Sustainability Awards Banksia Sustainability Awards Snowball sampling	
Contact SMEs from compiled list and invite to participate in research	Email LinkedIn	
Interview preparation	Review SMEs' websites, certification reports, media coverage	
Interview SMEs	Semi-structured interviews Face to face and Zoom Founders, CEOs/managing directors, senior managers	
Transcribe interviews	External transcription service	
Email transcriptions to participants	For verification and transparency	
Code data in NVivo	 Three-stage coding process First-order codes Second-order codes (categories) Third-order codes (themes) 	
Draft findings Email draft findings to participants	De-identified For validation and transparency	

good', a motivator identified by Upward and Jones (2016). This was variously expressed as helping to change business, leaving a positive legacy, solving global social and environmental challenges, advancing sustainability, creating the most positive social impact and the least environmental impact, and enabling the social sector. As one participant stated:

The way I think about our business model is a sort of a virtuous cycle of doing good and doing well. And so the more good we do, the more we're able to develop a deep trust and a valuable relationship with our customers. They support us and buy more product. And then the more we do well, ultimately the more good we're able to do. [ME1-2]

Further to 'doing well by doing good', financial considerations remain important drivers for adopting a for-profit SBM for three SMEs, a characteristic not previously identified in the literature. While Upward and Jones' (2016) conceptual SBM framework identified that 'doing well' (profitability) is a characteristic of SBMs, our empirical findings reveal SME participants' desire for financial independence. They actively avoided becoming reliant on donations and philanthropic funding, which are common in a not-for-profit (NFP) model: ... seen a lot of people working in not-for-profits and witnessed how reliant on funding. So I think being a for-profit was really the only way. [S2]

For another SME, it was important to prove that a for-profit model can be focused on sustainability:

It was actually a conscious decision to be a for-profit model – it's almost like we have a point to prove, that you can advance sustainability whilst helping your bottom line as well, so that was a conscious decision on our part, not just ourselves becoming a for-profit model, but focusing on businesses to help them embrace for-profit business models that also result in environmentally sustainable outcomes. [M2]

Four SMEs emphasised the importance of credibility, as identified in previous research on B Corps (Stubbs, 2019; Villela, Bulgacov & Morgan, 2021). This is achieved through certification, or accreditation, of their business models by intermediaries such as Social Traders and B Lab. Certification gives customers confidence in SMEs' governance processes and proving 'you're doing what you say you're doing'. Participants further explained that the credibility gained through being part of a social enterprise community 'opens doors' to new customers in the business and government sectors who want to work with, or procure from, social enterprises.

So we did it for credibility, especially with our B2B part of our business. The Social Traders part has helped quite a bit. It's opened up quite a few doors. We were creating social impact before we joined Social Traders, but we weren't given the opportunities that we get now, because we are certified by Social Traders. [M4]

Enablers and inhibitors

Partners, customers, and staff provide the most significant support for business and sustainability outcomes. While two SMEs were supported by government programs in the areas of ethical procurement and energy efficiency, overall, governments were regarded as inhibitors rather than enablers. Meanwhile, over half of the participants emphasised their customers are the most important enablers. In addition to opening doors to new customers (s4.1), participants pointed to the loyalty of their 'like-minded' and 'passionate' customers who continue to support them because of their focus on sustainability, and 'spread the word' to others.

So the business is at the stage now where it doesn't really need retailers to grow. We've got a bit of a following. Not just in Australia, but internationally, and that sustains us, even with our limited resources. A lot of people give us feedback that when they come to our website, they feel that we're pretty serious about our mission and we're not just ticking boxes. [M4]

While Jenkins (2004) found SMEs are vulnerable to customer loss, one SME pointed to the low customer loss rate, less than 1%, which is the lowest in their industry. They attribute this to their social impact business model, as customers value the positive social impacts. Another SME found that over 70% of customers were 'gifting' their products to friends which they viewed as 'a kind of secret magic sauce' assisting them to scale.

Staff who are aligned with the SMEs' SBM and values are also important enablers. This reinforces Luederitz et al.'s (2021) research that identified an alignment of business purpose and employees' values supports the integration of sustainability into SMEs' business models. The participants also indicated people are proactively approaching them 'not just for a salary or a job, but they're coming because they also want to make a difference'. Additionally, trust 'that you build up over time through your activities' is key to attracting and retaining the right staff.

The SMEs work with several industry and business partners who support them, which frees them up to focus on their sustainability outcomes. These include graphic designers, web developers,

billing services, payment processing, technical support, manufacturing, logistics, and in some cases customer service.

So that allows me to really just have a very small tight team. And I can basically just lean on them as our customer numbers grow. [M1]

SMEs also partner with organisations that are values-aligned in the environmental and social economy sectors. These partners typically have expertise that the SMEs don't have or don't want to acquire. Similar to research in the broader sustainability literature (e.g., Beutell, Kuschel, & Lepeley, 2021; Long, Looijen, & Blok, 2018), the SMEs reinforced that without the support of their partners, they couldn't achieve their sustainability outcomes.

We've always gone down the path that you don't need to be an expert at everything, we partnered with operations partners who meet all of the accreditation. If we had tried to get accreditations under all of these things we would never have gotten anywhere. [M3]

This contradicts previous SME research that found a lack of access to external expertise and advice exacerbates the challenges of adopting sustainable business practices (Aykol & Leonidou, 2015; Oduro, Bruno, & Maccario, 2021). Finally, the SMEs also identified family, friends, mentors, and local communities, where SMEs often hire from, as enablers of their business and sustainability outcomes. This resonates with extant literature which emphasises the connections SMEs have with local places and their embeddedness within local communities (e.g. Westman, Moores, & Burch, 2021).

The three biggest inhibitors to the SMEs' SBM and sustainability outcomes were government, big business, and financial issues. More than half the participants talked about the difficulties of working with governments—local, state, and federal—as both clients and as grant-providers. The participants found dealing with government representatives and processes was complex and time-consuming and suggested grant processes are not designed for SMEs. Grant applications require a 'massive time investment with very little outcome'. This reinforces previous research where a lack of government support and an unfavourable and complex regulatory environment were found to negatively impact SMEs' commitment to sustainability (Aykol & Leonidou, 2015; Factor & Ulhøi, 2021).

I was actually just looking at a grant today and it's just so complex, and I was thinking, how do they expect a small business to complete a 22 page document for a grant? I was talking to a grant writer yesterday, and she told me I was better off finding individuals with money rather than wasting your time applying for government grants, because they don't give out that much and they expect a lot for not a lot of resources. [M4]

Others noted the process-heavy, administration-focused grant schemes, recommending they be simplified and streamlined to benefit SMEs 'that need that type of support the most'. Participants also identified government decision-making as too slow for their timeframes, noting 'it's very common to take two or three years to make a decision or to get funding'. Yet another issue raised identified how governments can make 'bad' sustainability decisions which ultimately inhibit SMEs' sustainability impacts:

We've had big fights at [local government] saying that this idea is not an effective, meaningful way to deal with waste in a circular economy – it's bad, and it's hard to change that. [ME4-1]

Government grants can also be inflexible. One SME found that they were a poor fit for government grants and tenders, even though they were encouraged to apply. This SME addressed both environmental and social issues but they were asked to fit into one category only. They were also passed between the sustainability group and community group leading to them giving up.

So having a two pronged outcome was actually great for us, great for everyone who gets the benefit of it, but it actually was a challenge in terms of dealing with government. [M3]

Working with government clients was also regarded as time consuming and resource-intensive for SMEs. One SME took 6 years to secure a contract with a large state government department and has decided not to bid for more work. Governments often bundle projects together into a program of work, and SMEs may only be able to address one part of the program. While one SME would have 'loved to have done a lot more in the government space', the procurement and tender processes do not support SMEs who don't have a holistic offering that addresses a complete program of work.

One SME pointed to government's risk adverse mindset inhibiting sustainable SMEs' growth. They found governments are willing to fund SMEs once they are successful, which is not when SMEs most need the funding.

I think the risk-adverse nature that we've encountered in general makes us feel that we would only be really supported once we've gone past the threshold. So there's a tipping point where I feel like if we reach it then we could get grants easily, but it's before we reach that tipping point is actually where we need more support. So some of that chicken and egg dilemma in terms of funding requests. [M2]

The finance industry was also identified as being challenging to work with—they are reluctant to fund SMEs pursuing sustainability—reinforcing previous research (see, e.g., Andrieş et al., 2018; Koirala, 2019). In one SME's experience, venture capital funding was very process-heavy and administration-focused. In the future, this inhibitor may be mitigated by promising funding developments as Pizzi, Corbo, & Caputo (2021) found that FinTech firms are starting to launch new services to support SMEs to adopt SBMs.

In addition to limited government and finance industry support, two SMEs identified that big businesses, which dominate the market, constrain their market growth opportunities. For example, one SME found it challenging to establish a relationship with supermarkets to distribute its products. The supermarkets had exclusive contracts with the only two local manufacturers, which meant that 'one, it couldn't be supermarkets, it had to be online, and two, it couldn't be Australian made'. Monopolist markets appear to inhibit SMEs' ability to broaden their sustainability impacts.

Skills required to enable an SBM

We asked participants about the most valuable or important factors for achieving their SBMs and sustainability outcomes. They identified three main categories of skills required to support their SBMs: soft skills, business skills, and technical skills. Reinforcing Beutell, Kuschel, and Lepeley' (2021) and Jenkins (2009), soft skills are a critical component in implementing sustainability. Three main types of soft skills identified by the participants for the success of their SBMs were analytical and problem-solving skills, managing relationships with stakeholders, and persistence and tenacity.

Problem-solving skills are important as the SMEs 'see' a sustainability problem and 'want to solve it'. While problem-solving skills have not been discussed in the SBM literature, they are identified in the sustainability entrepreneurship scholarship (Belz & Binder, 2017). Problem-solving typically involves working with stakeholders—partners, clients, suppliers, manufacturers, service providers, government bodies, and financiers—which renders engaging and managing relationships with stakeholders crucial. As previously found, collaboration and networking are critical success factors for implementing an SBM (Long, Looijen, & Blok, 2018).

I think the group of skills that I would consider most valuable are the stakeholder engagement skills because of the challenges with procurement process, navigating cash flow and negotiating between all the different stakeholders that we need to get approval, so actual stakeholder engagement is a significant part of it. [M2]

Participants suggested tenacity and persistence to achieve SMEs' sustainability outcomes are crucial— 'being determined, committed and not looking at the short term'.

I'm also surrounded by a bunch of people who believe strongly in the purpose and people who are super-tenacious.... You need a purpose and you need to be tenacious. That's all you need. [ME4-1]

Aligned with persistence, one participant emphasised the importance of learning skills and a willingness to fail. Beutell, Kuschel, and Lepeley (2021) argued that the ability to deal with failure is critical for SMEs' survival and success. Dealing with failure is important for experimenting with, and innovating, SBMs.

One of the skills that we look at in terms of building a really successful team and team culture is our ability to learn ... we would rather be wrong and experience all the negative emotions of that versus being stuck in our ways, so I think learning, humility, there's a willingness to be wrong. [ME3]

While persistence and tenacity seem to be hallmarks of SMEs who are committed to their sustainability values and purpose, adaptability and flexibility are also important (Martín-Tapia, Aragón-Correa, & Rueda-Manzanares, 2010). SMEs need a 'flexible mindset and approach' acknowledging that 'we can't control everything'.

The importance of a culture that nurtures purpose and values was raised by several participants, helping to attract staff whose 'attitude or values really align to ours' (see s4.2). This informs recruitment and people management practices, which are key business skills—hiring and retaining people that 'encapsulate the values of the organisation'. Communications skills support this 'to get our ideas across and inspire people'. The other important business skill identified by SME participants is project management:

You're working with a client, they have a problem, you help them solve it, you give them an outcome, so the project management piece is really important. [M3]

These findings mirror those associated with large companies, where business model transformation occurs through 'questioning, learning, testing, and innovating linked to strong support for empowerment of employees' (Roome & Louche, 2016, p. 29).

Technical skills, particularly IT and technology skills, are typically outsourced. While the technical skills are specific to each SMEs' business, it is challenging for SMEs to 'have the ability to be across the business and the technology'.

So you've got to have this combination of business model expertise with technical expertise on that particular thing, and that's really not very common. [ME2-1]

Trade-offs

While two participants didn't 'feel like we've had any really significant trade-offs', the others identified two significant, inter-related, areas of trade-offs: financial and sustainability outcomes.

Nearly all participants talked about financial trade-offs, which previous SME sustainability literature identified (e.g., Koirala, 2019). The SMEs' financial trade-offs included founders not taking a salary or paying themselves a minimal salary; using founders' own capital to support the business; lower profit margins and relatedly not having the funds to grow or scale the business. The SMEs have lower profit margins than their competitors because they build sustainability into their operational practices to fulfil their SBM. One participant argued that 'every part of a product is a trade-off'—from the materials used for packaging, to how it is shipped and stored. For another, We use the most sustainable materials possible, the workers in our supply chains get paid a fair wage and the farmers are fairly compensated as well. [M4]

Contrary to the broader literature on SBMs where employees were found to be paid relatively lower wages (Morioka, Bolis, Evans, & Carvalho, 2017), three participants indicated they pay their staff above award wages and/or have employee wellbeing programs, such as providing 'a thousand dollars a year towards any sort of health or mental wellness thing'.

Further impacting profit margins, half of the SMEs donate their profits or provide pro-bono, or at cost, services to NFPs, and other organisations 'if we think it's important'. As one SME emphasised, 'we're comfortable with that—it's why we exist'.

However, for another SME this meant it was 'impossible for us to raise capital for the first few years' as people didn't understand the business model. The financial trade-offs inhibit growth:

... definitely put pressure on how fast we've been able to grow. I think for many of us, you care really deeply about purpose you're really committed to. So I think that's probably been a tradeoff. I think because of our commitment to the model and wanting to demonstrate that it is viable in the long-term. [ME1-1]

One SME highlighted the 'tension' in using their business model as a funding vehicle for delivering environmental and social outcomes. One tension exists where the more profitable an SME becomes, the more it can help alleviate global issues such as extreme poverty and carbon emissions. Alternatively, if the profits are invested back into the business, this can lay the foundation for future growth—to 'help the scale of efficiency as we grow'—and subsequently more profits to invest in sustainability outcomes. For another participant, weighing up how much they invest in growth and how much in sustainability is a 'healthy tension', but 'marrying those two together—there's no easy hard-and-fast rule for us, it is a constant exchange of communication and dialogue'. As one participant pointed out, there are tensions in an SBM that is 'looking at the lens through impact' rather than purely commercial, which is a big trade-off. Finally, two SMEs talked about environmental sustainability tensions related to the use of plastic. For example,

And the reality is that sometimes plastic is actually better than paper. But consumers don't want plastic. So there's this constant trade-off, as a business that cares about doing the most good, either invest in educating customers about why we're making the decisions that we're making, which can be really hard, versus where do we need to give customers what they want, so that we can grow faster and donate more money to what we're here to do, which is help provide sanitation. So yeah, it's an interesting tension. [ME1-1]

Major challenges and opportunities to implementing an SBM

Participants were asked to discuss their main challenges with implementing their SBM, as well as the opportunities. The two most discussed challenges were lack of resources, particularly financial, and COVID-19. This reinforces previous research on barriers for SMEs engaging with sustainability (Andrieş et al., 2018; Koirala, 2019). While lack of time is a common barrier identified in the literature, it was only mentioned by two SMEs.

For more than half of the SMEs, the financial challenges were the most significant in adopting an SBM to achieve their social and environmental impacts (see s4.4). Most of the SMEs are self-funded, which limits their capacity to do everything they want to do and grow their business.

So we're always financially on the borderline. And I think being entrepreneurial, it's always about what's next, what's next, I liken the organisation to the analogy of riding a horse and you want to keep the horse moving forward, and you've got two reins, you've got the impact rein and you've got the financial rein, and you need to keep jiggling the reins so the horse keeps moving forward. And that, in social enterprise, is always the tension. So how do you entrench inherent social value in the products and services that you deliver. [S1]

These SMEs found it difficult to get funding from external sources. One SME pointed to the limited investment opportunities for their company compared to bigger privately owned businesses which they compete with. They argued that 'we start off playing on an uneven playing field'.

So we may really want to do something, or have a great idea but the markets not willing to pay for it so we just can't do it. [ME2-2]

This inhibits SMEs' competitiveness. Four SMEs specifically pointed to their limited marketing capacity to build brand awareness and sales.

So there's obstacles with our business model, around our funding stream, obstacles about staying competitive, especially competing with some of the largest multinationals in the world which requires advertising, marketing, your own factories, efficiency of scale to drive prices down so you can compete, all significant obstacles. [ME3]

While financial resources were the primary challenge, 'people' resources were also mentioned by four SMEs. The SMEs are restricted in how many people they can hire. This means they may not have all the knowledge and experience they require to implement their ideas, resulting in a steep learning curve. It may also lead to staff burnout.

When you have people who can't say no to projects, because they know if they say no to the project it won't happen. They push themselves too hard, getting closer and closer to burnout. And so, I think in some ways we have this almost unhealthy relationship with impact internally. Which if we don't actively counteract it - it leads to people overworking. But it's out of line with our values and we actively try to fight it. [ME1-1]

COVID-19 was raised as a major challenge by a third of the SMEs. It created uncertainty through changes in consumer spending patterns, supply chain disruptions and reduced demand for SMEs' products and services. One SME discarded their 5-year plan as their business became 'more reactive than it possibly should be, but all the best laid plans in the world didn't have COVID-19 in them'. Another SME emphasises the importance of adaptability, identified in s4.3, as a key skill to dealing with increasing uncertainty (Beutell, Kuschel, & Lepeley, 2021):

It really is a week-by-week kind of process at the moment. We have to be very adaptable. All the seasonality trends have just fallen away from the last two and a half years, none of those trends apply. [M5]

The main opportunities arising from SMEs' SBMs are the ability to drive change, internally and externally, and leveraging partnerships and customer relationships to amplify the SMEs' impact. One SME stated they are 'always trying to learn and grow' so they can adapt their business model 'as new ideas come in'. Another SME is firmly focused on driving wider change, to encourage other SMEs to adopt SBMs:

Essentially, we've always recognised that if we fail as a business, but inspire ten other businesses that succeed, we will die happy. We're much more interested now than ever before, in sharing that success and those learnings with others. We're looking to drive shifts beyond our own behaviour, into the broader business community in the years to come. That's how I would describe our impact. [ME1-2]

Research on SBMs also highlights the role of businesses in shaping sustainability transformations beyond their own boundaries (Upward & Jones, 2016). Two-thirds of the SMEs leverage partnerships

and customer relationships to 'enable and amplify' impacts, and deliver outcomes, for 'not just us, but social enterprises in general'. Some of these SMEs found that sustainability is a really strong lever to drive customer growth, while others see increasing opportunities to align more closely with partners and customers that share the same sustainability values.

We really want to focus and prioritise working only with organisations that we believe are having, hopefully a positive impact on the world, but definitely not a negative one. Making that more open commitment or statement that these are the types of organisations that we want to work for and purposely chosen to support them. I certainly don't think there is any negative effects of going down that path, I think that's probably actually good for us. It became more honest externally with what we'd talked about internally. [S2]

Of note, one SME's business grew during COVID-19 'largely due to the network of people who are shopping their values'. Another identified this as their major opportunity: leveraging increasing consumer sentiment that values sustainable practices (Ardley & May, 2020; Nigam, Benetti, & Mbarek, 2018). Furthermore, an SME talked about leveraging their clients, and prospective clients,

... who are really keen on making impact in terms of emissions, and progressing and changing either their own footprint or supporting their community. [ME2-2]

This appears to contradict marketing research that identified a clear sustainability values-action gap among consumers (Diez-Martin, Blanco-Gonzalez, & Prado-Roman, 2019).

Summary of findings

Table 5 summarises the key findings of the factors that influence SMEs' adoption of SBMs.

Discussion and conclusion

The aim of our paper was to understand how SMEs can successfully adopt SBMs by examining 'lighthouse' SMEs' experiences. We identified the enablers and inhibitors, challenges and opportunities, and the lessons learnt from SMEs adopting SBMs.

As research on SMEs' business models is scarce (Chen et al., 2021), from both a theoretical and practical perspective (Miller et al., 2021), little is known about SMEs' engagement with SBMs. Our research provides theoretical (s5.1) and practical (s5.2) contributions to address the following knowledge gaps in the literature: the lack of empirical understanding of the processes of adopting and developing SBMs (Evans et al., 2017; Macchion, Toscani, & Vinelli, 2023; Miller et al., 2021); limited empirical insight regarding SMEs' capacity to adopt SBMs (van Bommel, 2018); and the lack of understanding of the steps (Frishammar & Parida, 2019) and capabilities (Preghenella & Battistella, 2021) required for SMEs' successful transformation to an SBM.

From a practical perspective, our research can help SMEs to 'innovate their business models' (Evans et al., 2017, p. 598). The major enablers, inhibitors, challenges, opportunities and trade-offs identified by participants can help guide SMEs through transforming their business models.

Theoretical implications

Our research provides several contributions to the extant literature by reinforcing findings in prior literature, extending the literature through deepening the understanding of the processes of adopting and developing SBMs in SMEs, and generating new theoretical insights into the factors facilitating SMEs' adoption of SBMs. Overall, the entrepreneurial style, lean and flexible organisational structures, and sustainability values of the founders and staff positioned the lighthouse SMEs for radical business model innovation, reinforcing Klewitz and Hansen's (2014) and Long, Looijen, & Blok's (2018) findings.

Reasons for adopting an SBM	Enablers (E) and inhibitors (I)	Skills and capabilities	Trade-offs	Challenges (C) and opportunities (O)
Credibility	Values-aligned partners (E)	Soft skills: analytical and problem-solving skills; managing relationships with stakeholders; collaboration and networking; persistence and tenacity; adaptability and flexibility; willingness to fail.	Founders not taking a salary	Lack of resources (C)
Do some good	'Like-minded' customers (E)	Business skills: hiring and retaining values-aligned people; clear communications; project management	Using founders' own capital to support the business	COVID-19 (C): changes in consumer spending patterns; supply chain disruptions; reduced demand
Financial independence	Values-aligned staff (E)	Technical skills: IT and technology	Not having the funds to grow or scale the business	Getting funding from external sources (C)
Prove a for-profit model can be focused on sustainability	Family, friends, mentors and local communities (E)		Lower profit margins	Limited marketing capacity to be competitive (C)
	Government (E and I)		How much to invest in growth and how much in sustainability	Staffing constraints and burnout (C)
	Finance industry (funding models) (I)			Ability to drive change, internally and externally (O)
	Big businesses that dominate the market (I)			Leveraging partnerships and customer relationships to amplify the SMEs' impact (O)
				Sustainability as a strong lever to drive customer growth: people shopping their values (O)

Table 5. Summary of findings

Adding further support to Luederitz et al. (2021), the research study found that the alignment of employee values with SBM values facilitates sustainability success. Furthermore, collaborating and networking with values-aligned partners and other organisations is critical to success of an SBM, reinforcing Long, Looijen, & Blok (2018). Our research strengthens prior literature that found that lack of funding opportunities stymies innovation (Andrieş et al., 2018; Koirala, 2019; Pizzi, Leopizzi, & Caputo, 2022). Finally, our findings align with those of Aykol and Leonidou (2015) and Factor and Ulhøi (2021), providing further evidence that a lack of government support hinders adoption of sustainable practices and SBMs.

Our research also extends existing literature. Previous scholars found that unfavourable external regulatory and policy environment negatively impacts SMEs' commitment to sustainability (Aykol & Leonidou, 2015; Long, Looijen, & Blok, 2018). Our research expands Long, Looijen, & Blok (2018)

and Aykol and Leonidou (2015) through understanding *how* governments impact SMEs' ability to adopt SBMs. For example, governments can make 'bad' sustainability decisions, which constrains SMEs' positive environmental and social impacts. In addition, government support is not well-tailored to SMEs' business models (poor fit) and governments' risk adverse mindset means they fund already successful SMEs rather than supporting SMEs to experiment with new SBMs. Our research also addresses knowledge gaps identified by Preghenella and Battistella (2021) through expanding understanding of the skills and capabilities required for SMEs to successfully implement an SBM.

Finally, our research provides new theoretical contributions to the literature by identifying the factors that can facilitate SMEs' adoption of SBMs, going beyond prior literature that found that collaboration, leveraging partners, and intermediaries are critical (Durst et al., 2021; Kundurpi et al., 2021; Stubbs et al., 2022) for 'mainstreaming' SBMs in the SME sector (Stubbs, 2017). In contrast to Jenkins (2004) who highlighted SMEs' vulnerability to customer loss, we found that SBMs can help SMEs to attract and retain customers—the 'secret magic sauce'—making them more resilient. Furthermore, the SMEs' SBMs facilitate building relationships with stakeholders providing expertise that SMEs lack, as well as attracting highly motivated staff. This study thereby demonstrates that adopting an SBM is a challenging but also an immensely rewarding process that can 'open doors', leading to tangible benefits and new opportunities for SMEs.

While the research found that a monopolist business environment can inhibit SMEs' sustainability reach and impacts, the findings suggest that as more customers 'shop their values', as more organisations seek to partner or collaborate with sustainable SMEs, and as more SMEs adopt SBMs, this can motivate other SMEs to adopt SBMs. These insights help to build theory about an emerging enabling environment that can support SMEs to adopt SBMs, in lieu of a more 'traditional', or formal, enabling environment of government support, regulation, and policies identified by Johnson and Schaltegger (2016). Intermediaries such as certification bodies (B Lab and Social Traders) also participate in this alternative enabling environment by facilitating a support network for sustainable SMEs.

The findings point to a reconceptualisation of the enabling environment that promotes and supports sustainable SMEs' adoption of SBMs. Long, Looijen, & Blok (2018) highlighted the importance of a supportive ecosystem around the firm, which, for this study's SMEs, currently is not provided by government policies, regulatory environment and funding support. It raises the question of what is the role of government in supporting and shaping future sustainable innovation and growth in the SME sector?

Practical implications

The findings can help guide SMEs who are considering adopting an SBM. The opportunities and enablers identified by the SMEs could provide a pathway towards an SBM as well as help to drive growth. The SMEs' experiences suggest these opportunities and enablers could be further leveraged and supported to broaden SBMs' appeal to SMEs. This includes leveraging an increasing trend for customers, as well as employees and potential partners, to 'shop their values', helping to offset profit/purpose compromises that participants identified (s4.4).

The emerging SME enabling environment suggested by this study—intermediaries, sustainable SMEs, and values-aligned customers, partners, and employees—may encourage and facilitate other SMEs to successfully adopt SBMs. SMEs could leverage this 'ecosystem' by building relationships with key stakeholders in the enabling environment, such as B Lab and Social Traders.

A key insight from the SMEs was the importance of soft skills in implementing SBMs, particularly during global crises and disruption. Burch et al. (2022) argue that the impacts of COVID-19 are similar to a large-scale environmental disaster, and place unprecedented pressures on SMEs' operations. Persistence, tenacity, flexibility, adaptability, and a willingness to learn and fail are key soft skills not only for implementing SBMs in SMEs but for navigating and responding to high levels of uncertainty and rapid changes in the external environment (Halkos & Skouloudis, 2020). Developing these skills builds resilience, enabling SMEs to successfully operate in times of uncertainty and respond to new

requirements through changes to their business models (Burch et al., 2022). Considering the important role of these skills in facilitating the journey of the lighthouse SMEs, they may be described as potentially transformative capabilities that other SMEs could develop. However, more evidence is needed to confirm this. It may be beneficial for SMEs to critically assess the level of these skills in their organisation and strengthen them before embarking on a transformational process towards adopting an SBM.

There are also important policy implications as these findings confirm and extend previous research on the role of governments. They point to significant room for improvement for better tailoring government support to underpin SMEs' sustainable transformations. For example, stream-lining funding policies to decrease complexity, speed-up decision-making, and prioritise SMEs in early stages of sustainability innovation. There may also be opportunities for tailoring policies to facilitate knowledge sharing and sharing of best practices among SMEs, for example from recipients of government funding and sustainability awards. Finally, consultation, and collaboration, between government policy-makers and SMEs in decision-making processes may contribute to more tailored, and effective, policies to support SMEs' sustainability transitions.

Limitations and future research

As the sample of SMEs participating in this study is not representative of the numerous and extremely heterogeneous SME industry sectors, the findings cannot be generalised. However, these findings lay a foundation for future research that could test and further enhance this study's findings, by using larger samples and by focusing on particular industry sectors (e.g. manufacturing, retail, or food/beverage sectors). Similarly, the findings may not resonate with other country contexts, particularly regarding the external enabling conditions, and would require further investigation.

While this study examined 'lighthouse' SMEs' experiences in adopting SBMs, future research could investigate in more depth their innovation and experimentation processes, to help overcome Battistella et al.'s (2018) observation that SMEs possess a reduced capacity for experimenting with business model innovation. Furthermore, evaluative research that establishes whether SMEs' SBMs lead to tangible and transformative sustainability outcomes would help to lend substance to claims of delivering environmental and social good.

This study identified an emerging external enabling environment and the important role it plays in supporting SMEs' adoption of SBMs. Future research could identify and engage with SMEs' stakeholders and other actors in the external enabling environment, including government agencies who were identified as a clear inhibitor to SME's adoption of SBMs. Further qualitative research would assist in understanding the roles and influences of these actors in facilitating SMEs' adoption of SBMs, and how they could contribute to accelerating SMEs' transitions to SBMs.

Acknowledgements. We gratefully acknowledge the support for our research from the Australian Research Council (Grant No. DP210100572) and the Canadian Social Science and Humanities Research Council (Grant No. 895-0053-2017). We sincerely thank all the participants in this study for their time, interest and frankness. We are grateful to all the SMEs who shared their experiences and insights with us.

References

- Aboelmaged, M., & Hashem, G. (2019). Absorptive capacity and green innovation adoption in SMEs: The mediating effects of sustainable organisational capabilities. Journal of Cleaner Production, 220, 853-863.
- Achtenhagen, L., Melin, L., & Naldi, L. (2013). Dynamics of business models strategizing, critical capabilities and activities for sustained value creation. *Long Range Planning*, 46(6), 427–442.
- Andrieş, A. M., Marcu, N., Oprea, F., & Tofan, M. (2018). Financial infrastructure and access to finance for European SMEs. *Sustainability*, *10*(10), 3400.
- Ardley, B., & May, C. (2020). Ethical marketer and sustainability: Facing the challenges of overconsumption and the market. Strategic Change, 29(6), 617–624.

- Australian Bureau of Statistics. (2020). Small business sector contribution to the Australian economy. Retrieved November 3, 2022, from https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp1920/SmallBusinessSectorAustralianEconomy#_Toc29222124.
- Aykol, B., & Leonidou, L. C. (2015). Researching the green practices of smaller service firms: A theoretical, methodological, and empirical assessment. *Journal of Small Business Management*, 53(4), 1264–1288.
- Bartolacci, F., Caputo, A., & Soverchia, M. (2020). Sustainability and financial performance of small and medium sized enterprises: A bibliometric and systematic literature review. *Business Strategy and the Environment*, 29(3), 1297–1309.
- Battistella, C., Cagnina, M. R., Cicero, L., & Preghenella, N. (2018). Sustainable business models of SMEs: Challenges in yacht tourism sector. Sustainability (Basel, Switzerland), 10(10), 3437.
- Belz, F. M., & Binder, J. K. (2017). Sustainable entrepreneurship: A convergent process model. Business Strategy and the Environment, 26(1), 1–17.
- Beutell, N., Kuschel, K., & Lepeley, M.-T. (2021). Learning from failure: Soft skills for sustainability in the VUCA environment. In M.-T. Lepeley, N. Beutell, N. Abarca & N. Majluf (Eds.), Soft skills for human centered management and global sustainability (41–55). New York: Routledge.
- Bevan, E. A., & Yung, P. (2015). Implementation of corporate social responsibility in Australian construction SMEs. Engineering, Construction and Architectural Management, 22(3), 295–311.
- Blaikie, N. W. H. (2000). Designing social research: The logic of anticipation. Malden, MA: Polity Press.
- Blundel, R., Monaghan, A., & Thomas, C. (2013). SMEs and environmental responsibility: A policy perspective. *Business Ethics:* A European Review, 22(3), 246–262.
- Bocken, N. M. (2015). Sustainable venture capital-catalyst for sustainable start-up success? *Journal of Cleaner Production*, 108, 647–658.
- Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*, 65, 42–56.
- Bos-Brouwers, H. E. J. (2010). Corporate sustainability and innovation in SMEs: Evidence of themes and activities in practice. Business Strategy and the Environment, 19(7), 417–435.
- Burch, S. (2018). Small businesses and sustainability innovation: Confronting the gap between motivation and capacity. Policy Brief No. 127 — April 2018. Toronto: Centre for International Governance Innovation. Retrieved November 3, 2022, from https://www.cigionline.org/sites/default/files/documents/PB%20no.127web.pdf.
- Burch, S., Andrachuk, M., Carey, D., Franzeskaki, N., Schroeder, H., Mischkowski, N., & Loorbach, D. (2016). Governing and accelerating transformative entrepreneurship: Exploring the potential for small business innovation on urban sustainability transitions. . Current Opinion in Environmental Sustainability, 22, 26–32.
- Burch, S., DiBella, J., Wiek, A., Schaltegger, S., Stubbs, W., Farrelly, M., & McCormick, K. (2022). Building urban resilience through sustainability-oriented small-and medium-sized enterprises. *Urban Transformations*, 4(1), 1–7.
- Cambra-Fierro, J., & Ruiz-Benítez, R. (2011). Sustainable business practices in Spain: A two-case study. European Business Review, 23(4), 401–412.
- Campos, L. M. (2012). Environmental management systems (EMS) for small companies: A study in Southern Brazil. *Journal* of Cleaner Production, 32, 141–148.
- Cassells, S., & Lewis, K. (2011). SMEs and environmental responsibility: Do actions reflect attitudes? Corporate Social Responsibility and Environmental Management, 18(3), 186–199.
- Chen, M., Chakraborty, S., Xiong, J., Scaringella, L., & Descubes, I. (2021). Business model renewal and environment changes: Insights of Chinese textile industry. *Strategic Change*, *30*(6), 573–580.
- Chesbrough, H. (2010). Business model innovation: Opportunities and barriers. Long Range Planning, 43(2-3), 354-363.
- Christensen, C. M., Raynor, M. E., & McDonald, R. (2015). What is disruptive innovation? *Harvard Business Review*, 5(5), 2017.
- Cosenz, F., & Bivona, E. (2021). Fostering growth patterns of SMEs through business model innovation. A tailored dynamic business modelling approach. *Journal of Business Research*, 130, 658–669.
- CSIRO (2022). SMEs key to driving growth in Australia. Retrieved November 3, 2022, from https://www.csiro.au/en/news/ news-releases/2022/small-and-medium-businesses-key-to-driving-growth-in-australia.
- Cusmano, L., Koreen, M., & Pissareva, L. (2018). 2018 OECD ministerial conference on SMEs: Key issues paper. OECD SME and Entrepreneurship Papers, No. 7.
- De Steur, H., Temmerman, H., Gellynck, X., & Canavari, M. (2020). Drivers, adoption, and evaluation of sustainability practices in Italian wine SMEs. *Business Strategy and the Environment*, 29(2), 744–762.
- Diez-Martin, F., Blanco-Gonzalez, A., & Prado-Roman, C. (2019). Research challenges in digital marketing: Sustainability. Sustainability, 11(10), 2839.
- Durst, S., Hammoda, B., Nguyen, H., & Moieny Asl, M. (2021). Sustainable business models and small- and medium-sized enterprises A literature review. *Sustainable Development and Engineering Economics*, 1(4), 54–79.
- Ebben, J. J., & Johnson, A. C. (2005). Efficiency, flexibility, or both? Evidence linking strategy to performance in small firms. *Strategic Management Journal*, 26(13), 1249–1259.

- Evans, S., Vladimirova, D., Holgado, M., Van Fossen, K., Yang, M., Silva, E. A., & Barlow, C. Y. (2017). Business model innovation for sustainability: Towards a unified perspective for creation of sustainable business models. *Business Strategy and the Environment*, 26(5), 597–608.
- Everett, J., & Watson, J. (1998). Small business failure and external risk factors. Small Business Economics, 11(4), 371–390.
- Factor, A., & Ulhøi, J. P. (2021). Sustainability and small to medium-sized enterprises: Lessons from mixed methods research. New York: Routledge.
- Frishammar, J, & Parida, V. (2019). Circular business model transformation: A roadmap for incumbent firms. California Management Review, 61(2), 5–29.
- Garzella, S., Fiorentino, R., Caputo, A., & Lardo, A. (2021). Business model innovation in SMEs: The role of boundaries in the digital era. *Technology Analysis and Strategic Management*, 33(1), 31–43.
- Geissdoerfer, M., Savaget, P., Bocken, N., & Hultink, E. (2017). The circular economy A new sustainability paradigm?. Journal of Cleaner Production, 143, 757–768.
- Geissdoerfer, M., Vladimirova, D., & Evans, S. (2018). Sustainable business model innovation: A review. *Journal of Cleaner Production*, 198, 401–416.
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2012). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. Organizational Research Methods, 16(1), 15–31.
- Halkos, G., & Skouloudis, A. (2020). Investigating resilience barriers of small and medium-sized enterprises to flash floods: A quantile regression of determining factors. *Climate and Development*, *12*(1), 57–66.
- Halme, M., & Korpela, M. (2014). Responsible innovation toward sustainable development in small and medium-sized enterprises: A resource perspective. *Business Strategy and the Environment*, 23(8), 547–566.
- Hansen, E., & Klewitz, J. (2012). Publicly mediated inter-organizational networks: A solution for sustainability-oriented innovation in SMEs? In M. Wagner (Ed.), *Entrepreneurship, innovation and sustainability* (254–278). Austin, Texas: Greenleaf.
- Hernandez-Chea, R., Jain, A., Bocken, N. M. P., & Gurtoo, A. (2021). The business model in sustainability transitions: A conceptualization. *Sustainability*, 13(11), 5763.
- Inigo, E. A., Albareda, L., & Ritala, P. (2017). Business model innovation for sustainability: Exploring evolutionary and radical approaches through dynamic capabilities. *Industry and Innovation*, 24(5), 515–542.
- Jenkins, H. (2004). A critique of conventional CSR theory: An SME perspective. Journal of General Management, 29(4), 37-57.
- Jenkins, H. (2009). A 'business opportunity' model of corporate social responsibility for small- and medium-sized enterprises. Business Ethics: A European Review, 18(1), 21–36.
- Johnson, M. P., & Schaltegger, S. (2016). Two decades of sustainability management tools for SMEs: How far have we come? Journal of Small Business Management, 54(2), 481–505.
- Klewitz, J., & Hansen, E. G. (2014). Sustainability-oriented innovation of SMEs: A systematic review. *Journal of Cleaner Production*, 65, 57–75.
- Koirala, S. (2019). SMEs: Key drivers of green and inclusive growth. OECD Green Growth Papers, No. 2019/03. Paris: OECD Publishing.
- Kundurpi, A., Westman, L., Luederitz, C., Burch, S., & Mercado, A. (2021). Navigating between adaptation and transformation: How intermediaries support businesses in sustainability transitions. *Journal of Cleaner Production*, 283, 125366.
- Long, T. B., Looijen, A., & Blok, V. (2018). Critical success factors for the transition to business models for sustainability in the food and beverage industry in the Netherlands. *Journal of Cleaner Production*, 175, 82–95.
- Luederitz, C., Caniglia, G., Colbert, B., & Burch, S. (2021). How do small businesses pursue sustainability? The role of collective agency for integrating planned and emergent strategy making. *Business Strategy and the Environment*, 30(7), 3376–3393.
- Macchion, L., Toscani, A. C., & Vinelli, A. (2023). Sustainable business models of small and medium-sized enterprises and the relationships to be established within the supply chain to support these models. *Corporate Social Responsibility and Environmental Management*, 30(2), 563–573.
- Martín-Tapia, I., Aragón-Correa, J. A., & Rueda-Manzanares, A. (2010). Environmental strategy and exports in medium, small and micro-enterprises. *Journal of World Business*, 45(3), 266–275.
- Miller, K., McAdam, M., Spieth, P., & Brady, M. (2021). Business models big and small: Review of conceptualisations and constructs and future directions for SME business model research. *Journal of Business Research*, 131, 619–626.
- Morioka, S. N., Bolis, I., Evans, S., & Carvalho, M. M. (2017). Transforming sustainability challenges into competitive advantage: Multiple case studies kaleidoscope converging into sustainable business models. *Journal of Cleaner Production*, 167, 723–738.
- Nigam, N., Benetti, C., & Mbarek, S. (2018). Can linking executive compensation to sustainability performance lead to a sustainable business model? Evidence of implementation from enterprises around the world. *Strategic Change*, 27(6), 571–585.
- Nudurupati, S. S., Budhwar, P., Pappu, R. P., Chowdhury, S., Kondala, M., Chakraborty, A., & Ghosh, S. K. (2022). Transforming sustainability of Indian small and medium-sized enterprises through circular economy adoption. *Journal of Business Research*, 149, 250–269.
- Oduro, S., Bruno, L., & Maccario, G. (2021). Corporate social responsibility (CSR) in SMEs: What we know, what we don't know, and what we should know. *Journal of Small Business and Entrepreneurship*, 1–32.

- Ortiz-Avram, D., Domnanovich, J., Kronenberg, C., & Scholz, M. (2018). Exploring the integration of corporate social responsibility into the strategies of small-and medium-sized enterprises: A systematic literature review. *Journal of Cleaner Production*, 201, 254–271.
- Pizzi, S., Corbo, L., & Caputo, A. (2021). Fintech and SMEs sustainable business models: Reflections and considerations for a circular economy. *Journal of Cleaner Production*, 281, 1–9.
- Pizzi, S., Leopizzi, R., & Caputo, A. (2022). The enablers in the relationship between entrepreneurial ecosystems and the circular economy: The case of circularity.com. *Management of Environmental Quality: An International Journal*, 33(1), 26–43.
- Preghenella, N., & Battistella, C. (2021). Exploring business models for sustainability: A bibliographic investigation of the literature and future research directions. *Business Strategy and the Environment*, 30(5), 2505–2522.
- Roome, N., & Louche, C. (2016). Journeying toward business models for sustainability: A conceptual model found inside the black box of organisational transformation. *Organization & Environment*, 29(1), 11–35.
- Scarpellini, S. (2022). Social impacts of a circular business model: An approach from a sustainability accounting and reporting perspective. Corporate Social Responsibility and Environmental Management, 29(3), 646–656.
- Schaltegger, S., Hansen, E. G., & Lüdeke-Freund, F. (2016a). Business models for sustainability: Origins, present research, and future avenues. Organization & Environment, 29(1), 3–10.
- Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. (2016b). Business models for sustainability: A co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation. Organization & Environment, 29(3), 264–289.
- Sommer, A. (2012). Managing green business model transformations (1st ed.). Berlin, Heidelberg: Springer.
- Stake, R. E. (2000). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The handbook of qualitative research* (2nd ed., pp. 435–454). Thousand Oaks: Sage Publications.
- Strauss, A. L., & Corbin, J. M. (1998). Basics of qualitative research: Techniques and procedures for developing grounded theory (2nd ed.). Thousand Oaks: Sage Publications (first published 1990).
- Stubbs, W. (2017). Characterising B Corps as a sustainable business model: An exploratory study of B Corps in Australia. *Journal of Cleaner Production*, 144, 299–312.
- Stubbs, W. (2019). Strategies, practices and tensions in managing business model innovation for sustainability: The case of an Australian B Corp. Corporate Social Responsibility & Environmental Management, 26(5), 1063–1072.
- Stubbs, W., & Cocklin, C. (2008). Conceptualizing a 'sustainability business model'. Organization & Environment, 21(2), 103-127.
- Stubbs, W., Dahlmann, F., & Raven, R. (2022). The purpose ecosystem and the United Nations Sustainable development goals: Interactions among private sector actors and stakeholders. *Journal of Business Ethics*, *180*(4), 1097–1112.
- Upward, A., & Jones, P. (2016). An ontology for strongly sustainable business models: Defining an enterprise framework compatible with natural and social science. *Organization & Environment*, 29(1), 97–123.
- van Bommel, K. (2018). Managing tensions in sustainable business models: Exploring instrumental and integrative strategies. *Journal of Cleaner Production*, 196, 829–841.
- Villela, M., Bulgacov, S., & Morgan, G. (2021). B Corp certification and its impact on organizations over time. Journal of Business Ethics, 170(2), 343–357.
- Weissbrod, I., & Bocken, N. M. P. (2017). Developing sustainable business experimentation capability A case study. Journal of Cleaner Production, 142(Part 4), 2663–2676.
- Westman, L., Luederitz, C., Kundurpi, A., Mercado, A. J., & Burch, S. L. (2022). Market transformations as collaborative change: Institutional co-evolution through small business entrepreneurship. *Business Strategy and the Environment*, 32(2), 936–957.
- Westman, L., McKenzie, J., & Burch, S. L. (2020). Political participation of businesses: A framework to understand contributions of SMEs to urban sustainability politics. *Earth System Governance*, 3, 100044.
- Westman, L., Moores, E., & Burch, S. L. (2021). Bridging the governance divide: The role of SMEs in urban sustainability interventions. *Cities*, 108, 102944.
- World Bank. (2022). Small and medium sized enterprises (SMEs) finance: Improving SMEs access to finance and finding innovative solutions to unlock sources of capital. Retrieved November 3, 2022, from https://www.worldbank.org/en/topic/ smefinance.

Wendy Stubbs is an associate professor at Monash University in Melbourne, Australia. Her research seeks to understand how business can more holistically address its environmental, social, and economic responsibilities. Her research is recognised as pioneering in the field of business models for sustainability, incorporating research on B Corps and 'purpose ecosystems' that support the emergence of purpose-driven businesses. Her research continues to explore the transformation of business through sustainable business models.

Megan Farrelly is an associate professor social scientist situated at the interdisciplinary interface of human geography, environmental studies and sustainability transitions. She has an international reputation for addressing grand sustainability challenges by applying socio-technical theories to urban infrastructure contexts (i.e. water and energy) and examines the influence of experimentation in advancing sustainable urban transformations within the Australian context. Her recent work continues to explore the influence of urban experimentation and how SMEs can be supported through governance and policy contexts to drive sustainable transformations. **Kyra Fabianke** is a PhD candidate within the School of Social Sciences at Monash University, Australia. Her research explores the process of organisational transformation for sustainability within the context of small- to medium-sized enterprises. Before commencing her doctoral degree, Kyra worked as a Consultant for Corporate Sustainability & Responsibility in Germany. She holds a Master of Arts in Global Studies from the University of Freiburg and FLACSO Argentina (Double Degree) as well as a Bachelor of Arts (Hons) in Human Geography from Leeds Beckett University.

Dr. Sarah Burch holds a Canada Research Chair in Sustainability Governance and Innovation, and is an associate professor in the Department of Geography and Environmental Management, University of Waterloo, Canada. She is the Executive Director of the Waterloo Climate Institute and a Lead Author of the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

Pavit Ramesh is a former research assistant in the School of Social Sciences at Monash University. His work explored the adoption of sustainable business models in small- and medium-sized enterprises (SMEs) and the wider ecosystem of actors that influences SMEs' innovation and experimentation. Pavit currently works as a Climate Change and Emissions Reduction Officer in Local Government. He also sits on the Advisory Board for Moral Fairground, a small business based in Melbourne to promote social entrepreneurship, conscious consumer behaviour, and ethical leadership. Pavit holds a master's degree in Environment and Sustainability from Monash University and an honours degree in Mechanical Engineering.

Cite this article: Stubbs, W., Farrelly, M., Fabianke, K., Burch, S., and Ramesh, P. (2024). Sustainable business models in 'lighthouse' small to medium enterprises. *Journal of Management & Organization*, 30(3), 466–489. https://doi.org/10.1017/jmo.2023.53