

RESEARCH ARTICLE

# Small and medium enterprises and sustainable business models: Exploring enabling factors for adoption

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## Abstract

An increasing number of small and medium enterprises (SMEs) are focusing on sustainable development and on embracing sustainable business models (SBMs). Despite the growing interest of academics and practitioners in SBMs, and the benefits for stakeholders, there is limited knowledge regarding the factors enabling SME transition toward SBMs, leading them to integrate sustainable principles in their BMs. This study explores the enabling factors for SBM adoption by SMEs and provides an improved understanding of this recent phenomenon. Understanding what factors enable adoption of SBMs is crucial for both SMEs and policymakers. The research uses an inductive qualitative research design approach focused on multiple case studies. The findings reveal that both internal and external factors play a key role in enabling SME transition toward SBM adoption. The internal factors that emerged include openness, change of mindset, problemistic search, social exchange, and resource valorization, while external factors included markets change, technological innovation, stakeholders' influences, policy and institutions.

**Keywords:** sustainable business model; SMEs; business model; sustainability; enabling factors

## Introduction

Recently, there has been a growing consensus among scholars and stakeholders on the pressing importance to address social and environmental challenges (Buchanan, Zietsma, & Matten, 2023; Ehrenfeld & Hoffman, 2013).

In recent years, increasing number of firms have sort to be primary and active players in the field of sustainable development, promoting actions aimed at sustainability and carrying out activities that are increasingly oriented in this sense (e.g., in terms of corporate social responsibility policies and initiatives).

To support this agenda, the United Nations have launched the Agenda 2030, which is a specific programme focused on 17 sustainable development goals (Colglazier, 2015; Pizzi, Caputo, Corvino, & Venturelli, 2020). To foster and achieve an effective sustainable transition, the involvement of the private sector plays a key role (Pizzi et al., 2020; Ramadani, Agarwal, Caputo, Agrawal, & Dixit, 2022). Organizations from all sectors and countries are called upon to pursue the improvement of sustainability (i.e., economic, ecological, and social goals) (Clauß, Kraus, & Jones, 2022). To address the sustainability challenges, many entrepreneurs are paying increasing attention to developing and commercializing innovative products/services and processes to provide positive benefits for the environment, employees, communities, and other stakeholders (Shepherd & Patzelt, 2011).

Due to internal and external challenges and drivers of change, many firms have had to adapt their business models (BMs) (Bargoni, Jabeen, Santoro, & Ferraris, 2023). Small and medium enterprises (SMEs), the engine of many world economies, are no exception. As a consequence, the literature has started to increase understanding on how SMEs cope with the pandemic by changing their value creation, architecture, or capture processes (Jabeen, Belas, Santoro, & Alam, 2023) to ensure survival and growth (Bocken, Schuit, & Kraaijenhagen, 2018; Boons & Lüdeke-Freund, 2013; Corvello, Straffalaci, & Filice, 2022; Corvello, Verteramo, Nocella, & Ammirato, 2022). Several studies demonstrate that changes in the BM ultimately and positively affect the performance of SMEs (Pucci, Nosi, & Zanni, 2017). Similarly, Cucculelli and Bettinelli (2015) underline that firms that have changed their BM evidence superior performance, compared to SMEs that have continued to use existing BMs. Evans et al. (2017, p. 597) suggest ‘Changes to business models are recognized as a fundamental approach to realize innovations for sustainability’. However, they underline that little is known about the underlying dynamics of sustainable business model (SBM) adoption. More specifically, despite the increasing interest of scholars and practitioners on SBMs, there is limited knowledge regarding the factors enabling the SME transition toward SBMs, leading them to integrate sustainable principles (Evans et al., 2017; Geissdoerfer, Vladimirova, & Evans, 2018; Schaltegger, Hansen, & Lüdeke-Freund, 2016; Schaltegger, Lüdeke-Freund, & Hansen, 2012). This research gap is confirmed by recent studies highlighting the need for further research on what drives SMEs to adopt an SBM (Bocken, Short, Rana, & Evans, 2014; Evans et al., 2017; Geissdoerfer, Vladimirova, & Evans, 2018; Pizzi, Corbo, & Caputo, 2021). Currently, there is a paucity of studies in this field specifically focused on SBM adoption and its antecedents (Evans et al., 2017; Pizzi, Corbo, & Caputo, 2021). From a practical perspective, understanding the factors driving SBM adoption for SMEs are important for several reasons. First, SMEs have a significant impact on the environment and society, both in terms of the products they produce and the way they operate (Santoro, Quaglia, Pellicelli, & De Bernardi, 2020). By adopting SBMs, SMEs can reduce their negative impact on the environment and contribute to social responsibility. Second, SBMs can contribute to the economic stability of SMEs by reducing their reliance on resources and decreasing their costs. By adopting sustainable practices, SMEs can also differentiate themselves from their competitors and create a competitive advantage (Franceschelli, Santoro, & Candelo, 2018). Third, with increasing environmental and social regulations, SMEs need to understand the factors driving SBMs to comply with the regulations and avoid penalties. Fourth, adopting SBMs can improve the reputation and brand image of SMEs, which can lead to increased customer loyalty and revenue. Fifth, investors and financial institutions are increasingly interested in funding SMEs that adopt SBMs. By understanding the factors driving SBMs, SMEs can access funding opportunities that may not be available otherwise.

Based on the above literature and motivations, research on the key drivers for adopting SBMs are likely to become increasingly prominent. This study seeks to fill the identified gap by exploring the factors enabling SME transition toward SBMs, leading them to embrace this approach focused on re-conceptualization and change of the value-creation logics (Bocken et al., 2014). The research seeks to address the following research question:

**RQ:** What are the factors that enable the SME transition toward the adoption of SBMs?

For the above discussed purpose and to answer this research question, inductive qualitative research is employed. Our evidence suggests that there are two different types of factors that enable this transition toward SBMs adoption. Our analysis, in fact, shows that there are both internal and external factors playing a crucial role in this transition. The study contributes to the emerging literature on SBMs, in the specific context of SMEs, by providing a clearer picture of what internal and external drivers lead to the adoption of an SBM, assisting scholars and practitioners alike in understanding and navigating this relevant, risky, and impactful transition. More specifically, this study highlights the key drivers enabling the SME transition toward SBMs and, particularly, how and what types of factors are related to SBM adoption by European SMEs. From a practical perspective, identifying factors enabling SME adoption of SBM is crucial for owner/managers and policymakers.

The article is organized as follows. The next section, Background, provides the background of the research, and it is followed by the description of the methodology (Method section). Findings section reports the findings of the research. Finally, the last section concludes the paper by providing a discussion of the findings, the implications, and the limitations that are open to avenues for future research.

## Background

BM is a concept that has attracted particular interest among academics and practitioners in recent years, especially after high-tech companies gained dominant positions in their sectors within a few years, thanks to disruptive BMs (e.g., Apple, Google, Spotify, Netflix among others). ‘Business model’ is usually employed to describe how a firm creates, delivers, and captures value (Jabeen et al., 2023; Zott & Amit, 2010). Other authors have analysed the BM framework in terms of three components: value creation, value configuration, and value capture (Johnson, Whittington, Regné, Angwin, & Scholes, 2020). The first describes the value proposition and the target. The second is about key activities and resources that support the value proposition. The third regards how organizations make profits. Teece (2010, p. 172) summarized these arguments, affirming that the ‘essence of a business model is in defining the manner by which the enterprise delivers value to customers, entices customers to pay for value, and converts those payments to profit.’

According to scholars, companies need to innovate their BM in order to keep pace with the current dynamic environment (Bhatti, Santoro, Khan, & Rizzato, 2021). Specifically, Foss and Saebi (2017, p. 207) define BM innovation as ‘designed, nontrivial changes to the key elements of a firm’s BM and/or the architecture linking these elements.’

Consequently, BM innovation occurs when one or more components/elements of the BM are amended successfully (Spieth & Schneider, 2016). However, scholars advocate that innovating one element of the BM usually leads to changes in other dimensions as well (Johnson, Christensen, & Kagermann, 2008). For example, typically, the innovation of the revenue model brings to various adaptations in the value configuration and creation too.

With the increasing resonance of social and environmental problems globally, the media and scientific debate has placed emphasis on the importance of promoting SBMs, either for solving specific social and/or problems or for reducing the negative impact on the environment and society (Franceschelli, Santoro, & Canelo, 2018).

In this regard, the literature provides several definitions of SBMs. For example, Schaltegger, Lüdeke-Freund, and Hansen (2012, p. 112) argued that SBMs ‘create customer and social value by integrating social, environmental, and business activities’. Similarly, Bocken, Short, Rana, and Evans (2013) underlined that SBMs seek to deliver other forms of value, other than economic value, and it is important to consider this for a broader range of stakeholders. Abdelkafi and Tauscher (2016, p. 75) pointed out that SBMs ‘incorporate sustainability as an integral part of the company’s value proposition and value creation logic. As such, provide value to the customer and to the natural environment and/or society’.

According to Geissdoerfer, Bocken and Hultink (2016, p. 1219), an SBM is defined as ‘a simplified representation of the elements, the interrelation between these elements, and the interactions with its stakeholders that an organisational unit uses to create, deliver, capture, and exchange sustainable value for, and in collaboration with, a broad range of stakeholders’. Evans et al. (2017) developed five propositions that support the creation of SBMs, while Bocken et al. (2014) identified and introduced some SBM archetypes of strategies, that is, mechanisms and solutions organizations can exploit to pursue sustainability. Geissdoerfer, Vladimirova, and Evans’s (2018, p. 403) review demonstrated that definitions of SBM in literature have in common the ‘modification of the conventional business model concept, with certain characteristics and goals added to it’, and the incorporation of principles/goals aimed at sustainability concepts or integration of such sustainability into their value proposition, creation delivery, or capture mechanisms.

Incorporating sustainability into BMs requires firms to go beyond the pursuit of economic performance, considering the preservation and renewal of all resources that allow the business to take place (Shakeel, Mardani, Chofreh, Goni, & Klemeš, 2020). Hence, organizations can change current BMs to make them more sustainable or create new BM with a social and/or environmental focus (Bocken et al., 2014). This paradigm shift has given rise to SBMs that create a competitive advantage via superior customer value while contributing to sustainable development (Lüdeke-Freund, 2010).

Firms can shift from an unsustainable BM to a sustainable one based on innovation and on features such as a more sustainable management of resources and raw materials; employing a set of ethic-based business values and principles; the sustainable production of natural, human, social, institutional, and cultural capital (Battistella, Cagnina, Cicero, & Preghenella, 2018).

For example, Franceschelli, Santoro, and Candelo (2018) note a case study of a food company developing an innovative BM, which is sustainable in all the BM components. From a stakeholder theory perspective (Friedman & Miles, 2002), consumers are questioning their consumption choices every day, and increasingly they ask for sustainable products and actions from firms. This is particularly true for younger generations, as found in the prior literature (Casalegno, Candelo, & Santoro, 2022).

SBM, to sum up, is a rather wide concept embracing other important concepts such as the circular BM. A circular BM not only creates sustainable value, employing pro-active multi-stakeholder management, and have a long-term perspective but also closes, slows, intensifies, dematerializes, and narrows resource loops (Geissdoerfer, Vladimirova, & Evans, 2018).

Several scholars underlined that the change of BM, that is, the transition to a new SBM, represents a significant challenge for organizations (Evans et al., 2017; Richardson, 2008). In the context of SMEs, and with specific regard to the service industry, Battistella et al. (2018) increase understanding on tensions related to strategy, innovation, capabilities, and networks when adopting an SBM. However, the cases discussed highlight that these challenges are context-specific.

Firms disclosing a capability to move into new BMs gain benefits in terms of sustainable competitive advantage and improved performance, especially the sustainability ones (Geissdoerfer, Vladimirova, & Evans, 2018; Nidumolu, Prahalad, & Rangaswami, 2009; Porter & Kramer, 2011).

In recent years, a growing number of firms are seeking to reconfigure their BM toward sustainability. Nevertheless, while some studies underlined the importance and benefits for SMEs to embrace sustainability (Caputo, Schiocchet, & Troise, 2022; Inigo, Albareda, & Ritala, 2017; Moore & Manring, 2009; Troise, Tani, Dinsmore, & Schiuma, 2021), there is limited knowledge regarding the enabling factors of SBMs adoption, and research in this field is emerging. This study seeks to offer novel insights on this crucial aspect for a specific geographical context, namely European SMEs, and to increase our understanding on both external and internal factors.

## Method

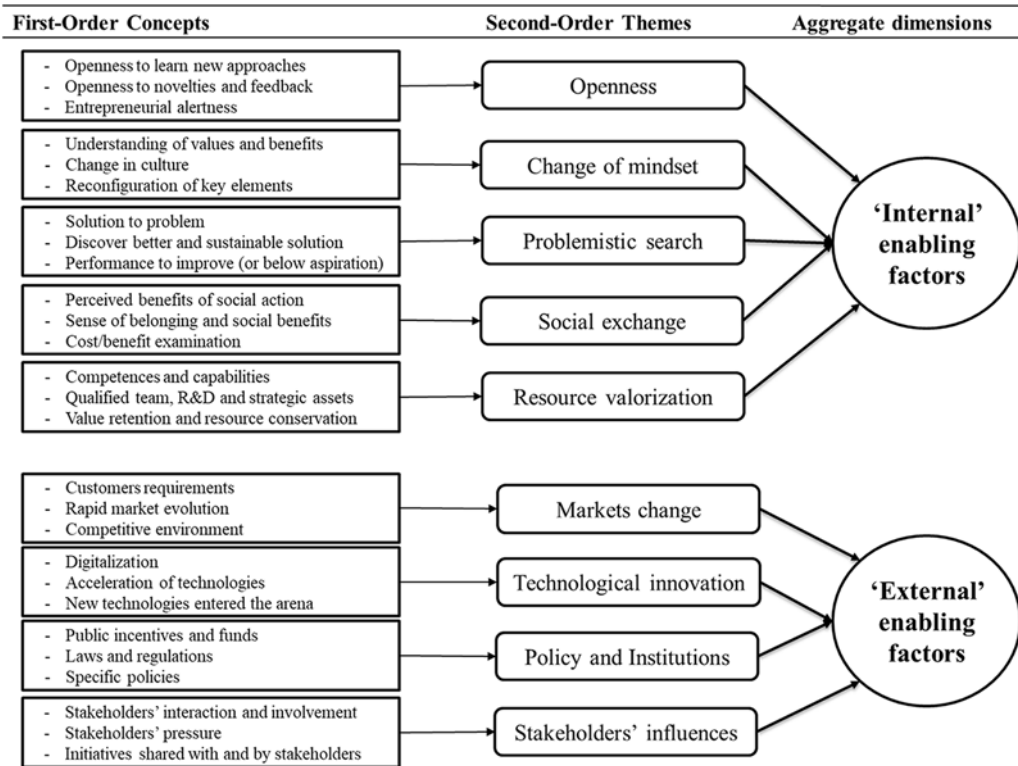
This research leverages an inductive qualitative research design approach focused on multiple case studies (Eisenhardt & Graebner, 2007) of European SMEs. The data were primarily drawn from observations and semi-structured interviews with the CEOs and founders. Other sources for secondary data were social media, organization websites/platforms, and dedicated press/blogs. In particular, a useful source was the SBM Canvas proposed by the firms in our sample. This specific document provides an overview of the key elements of the SBM – namely the value proposition, creation, delivery system, and capture – related to the sustainability efforts of the firm and especially those focused on the value proposition (including Profit, People, and Planet) (Bocken, Schuit, and Kraaijenhagen (2018) have proposed an SBM Canvas framework reinterpreting and implementing the BM canvas by Osterwalder and Pigneur (2010). This framework includes a value proposition consisting of ‘Profit’, ‘People’, and ‘Planet’, thus underling the need of creating positive effects on both the environment and society, as well preserving the firm’s financial wealth.) (Bocken, Schuit, & Kraaijenhagen, 2018). Secondary data helped support and interpret the responses.

**Table 1.** Sample characteristics

Geographical location	United Kingdom	33%
	Italy	33%
	Spain	14%
	Germany	11%
	France	3%
	Netherlands	3%
	Sweden	3%
Firm age	≤5	42%
	>5	58%
Industry	Manufacturing	31%
	Services activities and utilities	28%
	Trade, wholesale, and retail	11%
	Food & beverage	11%
	E-commerce and social media	8%
	ICT, software	8%
	Financial, insurance, and banking activities	3%
No. Employees	11–99	72%
	100–249	28%

The study aims to investigate a recent phenomenon; hence, the so-called ‘Gioia methodology’ (Gioia, Corley, & Hamilton, 2013) is used to enhance the qualitative rigour of this research. The choice of an inductive qualitative study is due both to the novelty of the topic and the scarcity of research focused on our specific aims, that is, to explore the enabling factors for the adoption of SBM. Our sample consists of 36 European SMEs that reconfigured their BM and adopted an SBM. This was a first criterion established to select cases; other two criteria were the EU context and the size, that is, being SMEs (according to the EU classification). Over a 6-month period (from December 2021 to May 2022), we collected data and conducted the interviews. The SMEs under examination were selected through purposeful sampling (Patton, 2002), being the authors in contact with several SMEs that changed their BM (resulting in an SBM). Thereafter, several interviewees allowed connections with some pertinent SMEs that had established an SBM (e.g., with which they have collaborations or represent stakeholders involved in business activities) and met our sampling criteria. The study employed snowball sampling (Johnson, 2014) and is useful for locating samples, often ‘hidden’, with specific and rare traits. Sample characteristics are reported in Table 1.

After reviewing the existing literature, we have focused on novel insights emerging from the data. The interviews – conducted in English – were transcribed and analysed, as well as triangulated with secondary data. The first two authors examined the interviews and the related transcriptions to open code the data; hence, this step allowed to code the data and group the main concepts into categories, that is, the first-order concepts (Glaser & Strauss, 1967; Strauss & Corbin, 1998). A coding process was developed by considering existing theory and the novel insights emerging from the data. The role of the other two authors was of theoretical interpreters maintaining a higher-level perspective. The discussion between the authors – which took place during the process (during/end of the phases of data collection and analysis) to maintain focus and clarity – led then to the codification of the emerging factors enabling SBM adoption and hence, in sum, to the definition of the two main categories, that is, the aggregate dimensions, deriving from the combination of five and four second-order themes, respectively.



**Figure 1.** Data structure.

### Findings

The final data structure is shown in [Figure 1](#). As discussed earlier, nine main themes emerged from the analyses, and they collapsed into two main aggregate dimensions, namely internal and external enabling factors. Our findings reveal that both of these dimensions play a key role in enabling SMEs' transition toward SBM adoption and thus leading them to modify their existing BM. Findings related to both the aggregate dimensions are discussed below in the following subsections.

#### *Internal enabling factors*

As for the internal factors, five second-order themes emerged and are supported by a series of first-order categories. These five themes are openness, change of mindset, problemistic search, social exchange, and resource valorization. Most of the interviewees highlighted that openness was a key driver to facilitate this transition to SBMs adoption by allowing them to learn new approaches. The openness to learning new approaches was decisive in influencing the decision-making process of the founders and CEOs and in undertaking that change ('we have followed two successful cases of companies that have adopted sustainable BMs and that have benefited from this change in terms of performance in the following years; so, we tried to learn from them and got in touch with them too'). The interviewees highlighted that, in this way, they learned new approaches about adopting an SBM and more effectively managing their firm. At the same time, a facilitator toward this transition was the openness to novelties and feedback. Interviewed revealed that they actively searched for information about new BMs and feedback from others that can help them ('I have been actively seeking information on how to make sustainable changes in my firm. [...] In particular, I looked for new ideas and sustainable solutions paying particular attention to the feedback from a plurality



of important stakeholders'). Furthermore, the interviewees showed a high level of alertness needed to trigger and embrace the transition, that is, they are more likely to search for more connections and information ('we try to have frequent interactions with many other stakeholders to acquire new information and evaluate or distinguish between the possible opportunities that arise').

Similarly, the change of mindset – with a major focus on values and benefits and on reconfiguration of elements – plays a vital role for SMEs, increasingly engaged in nurturing a sustainable culture and therefore changing their BM in this direction. First, the interviewees highlighted the importance of understanding core values and the related potential benefits of adopting sustainability.

Firms need to be sustainable value-oriented, and they will gain different benefits from such an approach from a social or ethical point of view as well as in terms of improved image, performance, costs or waste reduction, and others ('I believe that at the basis of the transition towards a sustainable business model there is our change of mindset, without it this would not have been possible; we have begun to understand the true values related to sustainability for our society, the environment and many stakeholders, as well as we have recognized that our firm should not ignore the impacts and consequences of our actions; in turn we have also recognized the main benefits that are a natural consequence, not only from a social point of view but also from an economic point of view'). In this sense, the interviewees underlined the pressing need to change the traditional way of thinking and evaluating all the options, in particular, the cultural change that must take place in general, that is, at all levels, and the reconfiguration of the key elements, which have become necessary factors. Some of the interviewees highlighted that the major change should be at the cultural level within the entire organization, thus leading to a natural transition to an SBM ('One of the main drivers of the transition was the cultural change that affected our entire organization; we recognized that embracing sustainability and cultivating a sustainable culture will be fundamental for the future of our venture and of the firms operating in our sector'); in this respect, sustainability need to become a cultural attitude and a shared mindset. Other interviewees described the reconfiguration of key elements – such as internal processes, specific production phases, networks – as a determinant of the SBM adoption ('Both the desire to reconfigure some elements according to a logic oriented towards sustainability and avoiding waste, and sometimes a necessity due to some changes or events, were factors that had a significant impact and were quite decisive.').

Several of the interviewees pointed out that their SBM adoption was driven by problemistic search. Specifically, the search for a solution to a problem, as well as the recognition of some performance to improve or the discovery of sustainable options, led them to move to SBMs. In particular, several of them were moved by the need to find solutions and to improve some performance below the expectations. In the latter case, the firm is led to seek a solution to the problem that has emerged and consequently make a change aimed at restoring (or generally improving) performance and, hopefully, do it in the most sustainable way possible ('We changed our business model by moving towards a sustainable one, given some urgent needs that emerged in particular in terms of cost and waste reduction and also to reorganize some processes that were anti-economic as well as potentially no longer feasible in the medium term, also considering some specific regulations on the subject; in our case, I could say that it was also a necessity as well as a socially desired transition and, I imagine, soon imminent for many SMEs'). Similarly, other interviewees highlighted that in addition to the need to find a solution, they were pushed to discover a better and sustainable solution; in some cases, the most sustainable ones were better than the 'unsustainable' ones (i.e., those without considering the sustainable elements and impacts), thus representing a further motivation in this choice ('We were pushed to change our BM to find more efficient solutions but at the same time we wanted to identify the most sustainable ones').

The interviewees highlighted that SMEs adopted SBMs because the perceived benefits are higher than potential costs; furthermore, there are social benefits for the community. First, they revealed that the perceived benefits of the social actions they will take in moving towards an SBM are critical; SMEs embrace this new BM when they consider the related benefits, and, at the same time, they carry out a cost–benefit analysis, that is, they compare the costs to be incurred with the resulting benefits

(‘We pay particular attention to the benefits of such social action, i.e. the transition to a sustainable business model; we believe that this will have positive social effects and, at the same time, will allow our firm to reduce some costs and obtain a significant number benefits, including those on future performance, environmental effects and waste’). On the same page, interviewees disclosed a relevant sense of belonging and the possibility that their actions have positive repercussions on society and community (‘Our actions are driven by the social benefits they can have; therefore, the adoption of a sustainable business model has significant effects on society, the environment and the community in general to which we have a strong sense of belonging’).

Finally, the last aspect that emerges from the interviews concerns the importance of enhancing different types of resources that represent an added value for the sustainable development of the firm. All the interviewees, in fact, highlighted the importance of resource valorization to move towards an SBM; firm resources, at various levels and forms (such as tangible and intangible), should be valorized and their value preserved. This purpose has led firms to move to an SBM. Competences and capabilities, in particular those of specific nature, are elements to valorize and leverage in the transition (‘Our firm has developed specific competences and capabilities that is important to valorise and, at the same time, are useful in our future developments oriented to sustainability’). Similarly, other resources such as qualified team, R&D activities (or investments), and strategic assets (e.g., intellectual property rights, in particular patents, and specific plants or machinery) enable SBM adoption, given their role and utility to exploit and valorize (‘We have three main elements that aim to valorise and enabled our transition, namely patents, R&D activities and skilled employee’). Finally, both value retention and the conservation of resources, with the related waste minimization, have been considered primary elements towards an SBM and to which firms are giving more and more importance and value, becoming central to their activities and a cornerstone towards a sustainable orientation (‘Our firm is actively moving towards sustainability with the aim of conserving our resources and reducing waste’).

### *External enabling factors*

Many interviewees underlined that also external factors are crucial in this scenario. The four main themes that emerged are markets change, technological innovation, influences of stakeholders, and policy and institutions. Market requirements emerged as the main factor that allowed the transition to an SBM. All the interviewees reported that their firms need to adapt to the rapid change of customer needs/requirements, the general market changes, and the highly competitive environments they navigate. Most of the interviewees underlined the pressing needs by markets change and that this transition is a necessity to navigate such a scenario. Market-specific requirement for sustainable activities, products, and interests inevitably influence the firm architecture; customers require firms to pay greater attention to sustainability issues, especially on planet, people, society, and environment (‘Customer requirements are increasingly oriented towards sustainability and our company had to pursue objectives in line with their expectations’). Given the rapid evolution of the market, firms need to embrace an SBM to respond to the new emerging needs of customers and, at the same time, to increase its competitiveness (‘Our choice was dictated by the change in the surrounding environment and above all by some actions taken by our direct competitors on the market; it is necessarily a factor that has pushed us in this direction and continue to remain competitive’); several competitors, in fact, are moving towards a sustainable orientation, while other new ones are entering the arena with a clear orientation towards sustainability since their inception. Therefore, the evolution of the competitive environment is pushing this transition, and firms that do not move in this direction will inevitably encounter difficulties and will see their role in the market downsized.

Remaining in the context of market evolution and competitive environment, equally important to firms in this transition are technological innovations that are spreading all over the world and determine benefits for businesses as well as their competitiveness. The recent acceleration of technologies and the increasing digitalization are significant enablers of the transition to SBMs and are



transforming several facets of firms, providing significant benefits (e.g., increased automation and reduction of transaction costs); among them, the main aspect that have emerged is that new technologies play key role in accelerating the transition to SBMs. Many new technologies – such as digital platforms, IoT, AI, Fintech, etc. – have entered the global arena and are increasingly used by a growing number of firms; this possibility of accessing new and emerging technologies is crucial for firms to achieve flexibility and efficiency, in particular by increasing their sustainable behaviours (such as in the use of specific utilization products/services) (“Thanks to the new technologies that our firm is implementing and using more and more often, we are able to direct every facet of our production towards sustainability; for example, we are adopting sustainable behaviours thanks to the help of AI, digital and blockchain technologies that allow us to increase our flexibility in managing the orders to be processed and in deciding which products or services to use; in general, I can say that without these new technologies the transition to a sustainable business model would have been much slower or perhaps it would not have happened yet”). Some of the interviewees underlined that new digital technologies allowed their firms to map their sustainable efforts and their effects in this sense, such as those on the environment (‘Digital technologies are particularly useful for measuring the impact of some of our actions on the environment, thus proving to be an interesting tool for fostering a shift towards sustainability’).

Finally, the policy and institutions and stakeholder’s influences emerged as significant drivers for SBM adoption. As for the first, most of the interviewees highlighted that policy and institutions, in particular some types of incentives, funds, and laws or regulations, were determinants in their transition. In the last few years, specific laws and policies in different countries have pushed SMEs to increase their efforts towards sustainability, and economic and financial incentives (from governments) have been introduced to alleviate this transition (‘We are a young SME that last year changed its business model, moving towards a sustainable one; this change was favoured by the possibility of leveraging a public incentive from the government and allowed us to anticipate a change that we had to make the following year due to the introduction of a new and specific law decree’). The founders and CEOs of SMEs pointed out that their decisions have been influenced by some inevitable changes, that is, some laws/regulations and policies, that have occurred on a continental as well as global level; however, they revealed that their decisions to move to an SBM was due also to the influences of stakeholders and in particular their involvement and the related social pressure. Some of the interviewees underlined that their actions were conditioned by pressures from some stakeholders who were important to them and whose opinions were particularly important (‘Two of our main partners had initiated a renewal policy with a clear focus on sustainability, and one of them, in particular, was asking its partners to do so in the near future’), while others argued that their decisions stemmed from interactions with stakeholders and, in particular, their involvement in specific practices (such as the sustainability-oriented ones) (‘Some of our stakeholders have a direct involvement in our activities, participating in them proactively, and have specific interests in our company, but they also have a great sensitivity towards the positive effects that the company should have for the whole society, so their involvement was a further incentive to our transition’) or the sharing of specific initiatives (such as specific campaigns, actions related to environmental impact and waste reduction) (‘The influences of the main stakeholders have been determining for our transition; some of them are strategic partners and together we have promoted some sustainability-oriented activities and campaigns’).

## Discussion and conclusions

This study aimed to unveil the internal and external enabling factors for SBM adoption by SMEs and provides an improved understanding of this recent phenomenon. The research identified two classes of enabling factors for SBM adoption by SMEs; this type of firms is less explored compared to large multinational corporations in this field of research (Bocken & Geradts, 2020). Currently, there is a scarcity of research in this field, and minimal attention has been paid to exploring the separation between internal and external factors, to explaining the factors that enable SBMs. This aspect

has been neglected in the recent literature, and there is a need to provide further the factors driving changes in the existing BM. Moreover, only a few scholars have attempted to evaluate the importance of antecedents of SBM, and this study responds to calls by Evans et al. (2017) and Geissdoerfer, Vladimirova, and Evans (2018) for further research. This study demonstrated the key drivers enabling the SME transition toward SBMs and, particularly, the results indicated how and what types of factors are related to SBM adoption by European SMEs. Two different dimensions of factors emerged from the study, and there are notable differences between them, in particular related to their nature.

As for the internal factors, our findings highlight that SMEs that are more alert and open to learn new approaches and novelties or feedback are more likely to adopt an SBMs and, therefore, to modify or innovate their existing BM. Prior research confirmed that openness is a facilitator of adaptation to changes and bring new solution (Antoncic, 2010; Ferraris, Santoro, & Bresciani, 2017); in our case, it is also true for SBM adoption. The data suggest that a change of mindset and greater attention to the valorization of resources are primary enabler factors. Thus, the study confirms that cultural changes towards sustainability as well as a reconfiguration of key elements are required and valuable driver for SBM adoption (Adams, Bessant, Jeanrenaud, Overy, & Denyer, 2012; Boons & Lüdeke-Freund, 2013; Evans et al., 2017). Apart from the valorization of existing team, R&D, and assets, the adoption of SBM was driven by the aim of valorizing key competences or capabilities and conserving resources in line with the principles of value retention, conservation of capital, and waste minimization (Reike, Vermeulen, & Witjes, 2018). Our study demonstrated that both social exchange theory (Homans, 1958) and problemistic search theory (Posen, Keil, Kim, & Meissner, 2018) explain the behaviours of SMEs moving towards SBM adoption. The perceived benefits of social actions and both social interactions and behaviours play a key role in influencing the decisions of SMEs. Simultaneously, SME actions and transitions are driven by the purpose of solving specific problems and improving performance below aspirations, both with the aim of doing so through a sustainable solution.

The findings of this research highlight that not only internal factors enable SBM adoption by SMEs but also external factors. The latter are particularly important in this transition, as firms are required to adapt existing BMs to face developing scenarios and challenging environments (Hedman & Kalling, 2003; Troise, Corvello, Ghobadian, & O'Regan, 2022). Both changes in technology and markets play a key role in the transition to an SBM, confirming some previous evidence that highlights how these factors have significant impacts (both short and long term) on changes in the BM of firms (Habtay, 2012; Moore & Manring, 2009). The market has been changing rapidly in recent years – with a greater orientation towards sustainability of its actors and an increase in customer needs – and, at the same time, firms are experiencing an acceleration of technological innovation – more often linked to the new needs of the market (and customer); both these aspects are inducing SMEs to introduce more sustainable development practices and to move towards SBMs (Moore & Manring, 2009; Pizzi, Corbo, & Caputo, 2021). Our research confirms preliminary findings of Pizzi, Corbo, and Caputo (2021) – whose study focused on Fintech – that technological innovations contribute to the transition to SBMs. Technological innovations, which have significant benefits for firms (e.g., cost reduction and improved efficiency), represent valuable enabling factors in stimulating the development of new SBMs. Thus, the findings support the idea that SMEs embracing digitalization could have a more sustainable trajectory and confirm the potential convergence between digitalization and sustainability (Del Río Castro, González Fernández, & Uruburu Colsa, 2021; Pizzi, Corbo, & Caputo, 2021). Finally, our findings underline the importance of policy or institutions – such as specific policies, laws/regulations, and funds/incentives – and the influences of stakeholders to enable the transition to SBM (Abu-Ghunmi, Abu-Ghunmi, Kayal, & Bino, 2016; Geissdoerfer, Savaget, Bocken, & Hultink, 2017). Notably, increased interactions and stakeholder engagement practices could effectively support the sustainable development of the BM of SMEs.

Understanding what factors enable SMEs adoption of SBM is crucial for firms – especially their founders and CEOs/managers – and for policy makers. The latter, in fact, encourage firms to integrate sustainable principles in their BM, and this has historically represented a complex task for them (Pizzi et al., 2020). The academic and practitioner interest in SBM has grown rapidly; therefore, the findings

of this research will reveal interesting indications and practical implications for several types of stakeholders. Hopefully, our results will assist SMEs, policymakers, public agencies, and other key actors involved, in designing effective strategies to stimulate SBM adoption. Our proposed framework comprised external and internal factors enabling the transition, and it may represent a reference for these players to offer guidance in the transition to modify existing BMs and implementing new actions.

Studies on SBMs are topical, and there is an ongoing call for research on this field. This research contributes to the current literature on BM, and specifically the emerging research stream focused on SBM. Furthermore, the research offers novel insights on the relationships between sustainability and SMEs. It identifies novel enabler factors and confirms the key role of digitalization and new technologies (such as Fintech) (see among others Pizzi, Corbo, & Caputo, 2021).

This research is not without limitations, but they offer avenues for future research. First, the research is qualitative; therefore, given its nature, this represents a limit in the generalizability of the results; however, this offers the opportunity to expand the research and further confirm the findings through further quantitative studies. The study focused on European SMEs; therefore, a subsequent study could explore an international expansion of the sample. In addition, the study focuses on different sectors without considering the peculiarities of each one. The adoption of SBMs could be influenced by sector-specific dynamics, specific laws, and other factors. Therefore, future studies could account for these factors by studying specific sectors. This could be done both through a qualitative and quantitative method. Finally, our analyses do not allow us to verify whether the adoption of SBMs has actually led to benefits for external stakeholders (environment and society) and for the focal firm. For these reasons, future studies could analyse a model based on antecedents (internal and external) of the adoption of SBMs together with outcomes such as environmental, social, and economic performance.

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