

Research article

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SUSTAINABLE BUSINESS MODELS AND SMALL- AND MEDIUM-SIZED ENTERPRISES – A LITERATURE REVIEW

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Abstract

Recent developments show that an increasing number of organisations, regardless of type and size, understand that there is a need for them to make an active contribution to society, both socially and environmentally, while maintaining their financial profitability. It is no longer possible to waste resources and ignore the expectations of both internal and external stakeholders. To address these developments, all organisations are required to adapt their business models. Against this background, this paper provides a systematic review of the extant research on sustainable business models (SBMs) in small- and medium-sized enterprises (SMEs) to establish the current body of knowledge and, on this basis, to suggest some promising avenues for future research. Given the impact of SMEs on the majority of economies and their consequent role in addressing present and future societal challenges, there is a clear justification for this study. The review of 85 refereed articles shows that, although a good body of knowledge about the topic has been developed during the period covered in this study, there is still a need for further rigorous research. It appears that certain shortcomings, stressed by some researchers in the past, still prevail. The study's findings advance the current understanding of SBMs in SMEs and highlight several promising research avenues that scholars who are interested in the study of SBMs, in general, and SBMs in SMEs, in particular, might address.

Keywords: sustainable business models, business models, sustainable development, small firms, SMEs, systematic literature review

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УСТОЙЧИВЫЕ БИЗНЕС-МОДЕЛИ И МАЛЫЕ И СРЕДНИЕ ПРЕДПРИЯТИЯ – ОБЗОР ЛИТЕРАТУРЫ

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Аннотация

Последние события показывают, что все большее число организаций, независимо от их типа и размера, понимают, что необходимо вносить активный вклад в жизнь общества, как в социальном, так и в экологическом плане, сохраняя при этом свою финансовую рентабельность. Больше невозможно растрачивать ресурсы и игнорировать ожидания как внутренних, так и внешних заинтересованных сторон. Для решения этих проблем все организации должны адаптировать свои бизнес-модели. На этом фоне в данной работе представлен систематический обзор сохранившихся исследований по устойчивым бизнес-моделям малых и средних предприятий (МСП) с целью создания современного массива знаний и, исходя из этого, предложения некоторых перспективных направлений для будущих исследований. Учитывая влияние МСП на экономику большинства стран и, следовательно, их роль в решении нынешних и будущих проблем общества, существует четкое обоснование для проведения исследования. Обзор 85 рецензируемых статей показывает, что, несмотря на то, что за период, охватываемый настоящим исследованием, был накоплен большой объем знаний по данной теме, все еще существует необходимость в более тщательных исследованиях. На самом деле, как представляется, некоторые недостатки, отмеченные некоторыми исследователями в прошлом, все еще преобладают. Выводы исследования способствуют углублению нынешнего понимания устойчивых моделей предпринимательской деятельности в МСП и указывают на ряд перспективных направлений исследований, которые могут быть изучены учеными, заинтересованными в изучении устойчивых моделей предпринимательской деятельности в целом и устойчивых моделей предпринимательской деятельности в МСП в частности.

Ключевые слова: устойчивые бизнес-модели, бизнес-модели, устойчивое развитие, малые фирмы, МСП, систематический обзор литературы

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1. Introduction

Recent developments show that an increasing number of organisations, regardless of type and size, understand that there is a need for them to make an active contribution to society, both socially and environmentally, while maintaining their financial profitability. It is no longer possible for them to waste resources and ignore the expectations of both internal and external stakeholders. At the same time, market demands for more sustainable goods and services have increased, which has led to a growing interest amongst companies to put a stronger focus on sustainability (Schönborn et al., 2019). To address recent developments, organisations are also required to adapt their business models and transform them into sustainable business models (SBMs) (Hacklin et al., 2018). An SBM can be understood as ‘a business model that incorporates pro-active multi-stakeholder management, the creation of monetary and non-monetary value for a broad range of stakeholders, and which holds a long-term perspective’ (Geissdoerfer et al., 2018). In comparison to the study of business models (Zott et al., 2011), the study of SBMs is still an emergent one (Foss and Saebi, 2016).

According to Evans et al. (2017), the concept of ‘value’ has been perceived as an important and substantiating building block of business models. As the world changed, so did the perception of value – and today the understanding of value also includes the aspects of ecology and sociology. Consequently, companies should consider incorporating environmental and social goals into their value logic (Evans et al., 2017). Hence, business model innovation or adaptation towards more sustainability needs to include environmental and social actions as well and not to solely focus on economic actions.

Both topics – namely, business models and sustainability – tend to be studied in large, often multi-national, organisations. Small- and medium-sized enterprises (SMEs) have received little attention in comparison even though they form the backbone of economies all over the world (Johnson and Schaltegger, 2015; Miller et al., 2020; Tsvetkova et al., 2020).

Against this background, this paper aims to review research on SBMs in SMEs in order to establish the current body of knowledge and, on the basis of this foundation, identify gaps in our understanding. In turn, this identification can subsequently form the basis for future research. To reach that aim, the following research questions were formulated:

RQ1: What topics are researched in conjunction with SBMs in SMEs?

RQ2: What were the main findings of these studies?

RQ3: What methods were used?

RQ4: What theories have been applied in these studies?

The paper is structured as follows. The next section provides more detailed insight into the procedure of the methodology chosen for identifying the extant research on SBMs in SMEs. Subsequently, the results are presented. This is followed by a provision of possible future research opportunities. The paper concludes with implications for both theory and practice.

2. Methodology of the literature review

Our systematic literature review (SLR) followed a combined approach of Jesson et al. (2011) and McNulty et al. (2012). Jesson (2011) proposed six principles for systematic reviews, which are: 1) Mapping the field through a scoping review, 2) Comprehensive search, 3) Quality assessment via reading and selecting qualified papers, 4) Data extraction via collecting needed data from reviewed papers and storing them in an excel sheet with predetermined fields for all papers, 5) Synthesis of the extracted data to show the known and to provide the basis for establishing the unknown and 6) Write-up. McNulty et

al. (2012) proposed a list of criteria that can be used to establish the basis for a descriptive and analytical overview of research on SBMs in SMEs, which formed the basis for our data extraction. Although McNulty et al.'s (2012) study investigated corporate governance, their list of criteria can be transferred to other fields because it allows us to obtain quantitative and qualitative insights into the subject under investigation, which is necessary in order to establish the current body of knowledge as this study intends.

We conducted our systematic literature review through the following steps. First, we agreed on a research plan based on the research questions we were interested in answering. The plan included the search keywords as well as the inclusion and exclusion criteria. Since we were interested in developing an understanding of the current body of research on SBMs in SMEs, we decided to use multiple keywords to identify relevant studies, such as sustainable, sustainability, eco, environment, triple bottom line and circular together with business model. In addition, we used keywords to define our target business size: small- and medium-sized enterprises (SMEs), small businesses, small companies, small firms, entrepreneurships or start-ups. The inclusion criteria were empirical research papers, peer-reviewed, English language and indexed in one of the following databases: Scopus, Web of Science, EBSCO and Wiley Online Library. We excluded grey literature, such as reports and non-academic research, and languages other than English. Furthermore, we produced an excel data sheet consisting of criteria relevant for establishing our understanding of SBMs in SMEs.

Second, one of us accessed the above-mentioned databases and searched using the combinations of the agreed keywords in the titles, keywords or abstracts of selected papers. The literature review included papers published up until December 2020. Depending on the search keyword combinations used, different numbers of hits were generated, totalling 286 articles distributed amongst databases as follows: Scopus (114 articles), Web of Science (75 articles), EBSCO (72 articles) and Wiley Online Library (25 articles). There was minimal overlap amongst the four databases (11 articles). Third, each of us went through the abstracts of these papers and, if required, more parts of the articles in order to qualify them on the basis of our research questions as well as our inclusion and exclusion criteria. This reduced the number of articles without duplications to a final tally of 153 articles that fulfilled our criteria, which were then analysed. Fourth, we distributed the papers amongst the authors, with each reviewing and analysing nearly 40 papers, then coding them according to the criteria specified below. Fifth, individual data were synthesised into one. Subsequently, each author individually worked through the merged sheet to check for coding consistency, specifically in the cases in which we could not take advantage of McNulty et al. (2012), e.g. codes for the criterion topic. Our different views were shared and discussed during discussion rounds, which led to a further reduction in the number of papers. Ultimately, a total of 85 empirical papers formed the basis for our analysis. Sixth, the final stage of our SLR was reserved for writing up our findings.

2.1 Specification of criteria

In the following subsections, each criterion used in the present paper is briefly outlined.

2.1.1 Year of publication

To determine when the current body of knowledge was made available to research communities, we captured the year of publication for every paper covered in the study.

2.1.2 Journal of publication

To obtain data regarding the fields from which the existing body of knowledge emerged, we classified the journals according to the following five broad categories: sustainable innovation, sustainable development, business model, business strategy and other journals.

2.1.3. Theoretical/research aim

To understand the authors' orientation (perception) towards the study of SBMs in SMEs, we were interested in gaining insights into the papers' theoretical aims. Consequently, a paper's aim could have been to explore, to develop (elaborate) or to test (validate) SBMs in SMEs. This understanding would indicate the level of maturity of the research field – i.e. a focus on exploration indicates that the research field is relatively at its beginning. Additionally, it provides information about the boundaries of the topic – i.e. a greater focus on empirical research helps to better define the boundaries of the topic.

2.1.4 Theories and theoretical perspectives

We were also interested in learning about the theories or theoretical perspectives applied by the authors covered in the review to study business models in SMEs because a lack of theoretical groundings in research on business models has been highlighted (e.g. Boons and Lüdeke-Freund, 2013).

2.1.5 Research setting

In relation to this criterion, we investigated where—i.e. the geographical location—the research on SBMs in SMEs had been conducted (in order to identify focal points in the world) and which sectors were represented in the literature (in order to detect missing and underrepresented industries to help guide future research).

2.1.6 Research methods

To understand what the existing body of knowledge is based upon, we examined the instruments/techniques used to collect data. This information also helped us determine the preferred research approaches found in the area under investigation.

2.2.7 Unit of analysis

To better understand the extant research on business models in SMEs and, thus, its complexity, we also considered the unit of analysis being studied in the reviewed papers—that is, an individual, an organisation or even groups of individuals, organisations, etc. The articles examined may have used multiple units of analysis as well.

2.1.8 Theme

As the study of SBMs is still a relatively recent field, one would assume that the study topics/themes are rather fragmented and are mainly driven by individual scholars and their preferences. Consequently, we decided not to specify any themes in advance but to derive them as an outcome of each author's individual analysis and the authors' joint discussions. More precisely, based on the analysis, corresponding theme for each paper were deduced, which were then grouped into broader categories and subcategories.

3. Results

In the following subsections, the results we obtained are presented, covering both quantitative and qualitative insights into the study of SBMs in SMEs.

3.1 Year of publication

Amongst the 85 papers that formed the basis for the analysis, the oldest publication was published in 2014, while the most recent ones were published in 2020. Reviewing the papers involved in

the present study points to a growing interest in the topic starting in the year 2017 (with 12 articles in 2017, 21 in 2018, 23 in 2019 and 19 in 2020). This increased interest might have been driven and supported by the rising need for sustainable business development and SBMs. The more recent research activities might have been amplified by both the growing market for sustainable goods and the increasing number of companies that are convinced that becoming more sustainable does not only benefit them but also the society at large.

3.2 Journal of publication

The journals that published research on SBMs in SMEs can primarily be assigned to the challenging areas relating to sustainability, sustainable development, socioeconomics, corporate social responsibility, business strategy, entrepreneurship and innovation in business sustainability. It is not surprising that the majority of publications were found in the areas of sustainable business and strategy in corporations. As shown in Table 1, most of the papers were published in the journals *Cleaner Production*, *Sustainability*, and *Business Strategy and the Environment*.

Table 1. Overview of journals that published papers on SBMs in SMEs

Name of journal	Number of Published Articles
Cleaner Production	25
Sustainability	23
Business Strategy and the Environment	6
Corporate Social Responsibility and Environmental Management	2
Renewable Energy	2
Acta Commercii	1
Agriculture	1
British Food	1
Business Ethics	1
Business Horizons	1
Economics and Management (JEM)	1
Energies	1
Engineering and Environment	1
Entrepreneurship and Innovation	1
Entrepreneurship, Management and Innovation	1
European Countryside	1
Fashion Practice	1
Forest Policy and Economics	1
Global Business and Organizational Excellence	1
Integrative Environmental Sciences	1
Precision Engineering and Manufacturing-Green Technology	1
Production Economics	1
Knowledge Management	1
Management & Marketing. Challenges for the Knowledge Society	1
Management Decision	1
Research Policy	1
Resources, Conservation and Recycling	1
Small Business Management	1
Social Business	1
Sustainable Tourism	1
Technology Analysis and Strategic Management	1
TEM JOURNAL – Technology, Education, Management, Informatics	1
Total	85

Source: The authors

3.3 Research aims/objectives

Throughout the reviewed articles, the authors of the present paper approached the field of SBMs in SMEs with different aims in mind. Some papers had multiple objectives as well. Although the majority of articles were of exploratory nature (83 articles), some papers aimed at developing hypotheses and archetypes (9 articles). The proposition of tools and frameworks for developing a better understanding of SBMs in SMEs also formed a considerable proportion of the papers covered (9 articles). Articles aimed at testing certain areas related to SBMs in SMEs were a rare occurrence (3 articles). The organisation of research aims across articles is illustrated in Table 2.

3.4 Exploratory articles

The articles of exploratory nature were further grouped based on the driving topics they were trying to examine.

3.4.1 The antecedents and influencers of SBMs

(a) Challenges and barriers to the development, adoption and implementation of SBMs, such as articles on barriers when transitioning to sustainable product-service systems (de Jesus Pacheco et al., 2019), linking path dependencies to cognitive barriers (Brozovic, 2019) or exploring barriers to implementing sharing economy business models (Govindan et al., 2020).

(b) Enablers, influencing and success factors of SBMs, such as papers highlighting environmental management practices (EMPs) as a supportive factor (Buffa et al., 2018), identifying market conditions influencing SBMs (Bolesnikov et al., 2019) or exploring consumer needs and demands, thus shaping business models towards sustainability (Bonadonna et al., 2019).

3.4.2 The activation and operationalisation of SBMs

(a) The evolution, lifecycle and path dependencies of SBMs, such as articles exploring business model evolution and path dependencies in the electric vehicle industry (Bohnsack et al., 2014), identifying the development stages of business models for sustainable tourism (Szromek, 2019) or following the innovation journey in the business model of a Scandinavian social enterprise (Olofsson et al., 2018).

(b) The role of SBMs in value creation and delivery, such as exploring how sustainable value is created through bicycle sharing schemes in Barcelona (Winslow and Mont, 2019) or closely investigating the full cycle of value creation, delivery and capture in circular bioeconomy business models amongst Finnish SMEs (D'Amato et al., 2020).

(c) The practices and characteristics of SBMs, such as looking at circular economy implementation practices by Italian SMEs (Mura et al., 2020), exploring business model innovation practices to overcome hybridity tensions in sustainable entrepreneurship (Matzembacher et al., 2020) or characterising B Corps as sustainable enterprises in Australia (Stubbs, 2017).

(d) The relations and interdependencies of SBMs with: management research and theories (e.g. García-Álvarez de Perea et al., 2019) looking at internationalisation Business Models (BMs) for sustainable agri-food SMEs and Multinational Enterprises (MNEs); organisational factors (e.g. Hahn et al., 2018) correlating the commercial orientation within organisations with the development of hybrid business models; and the ecosystem (e.g. Neumeyer and Santos, 2018) exploring SBM in relation with entrepreneurial ecosystems from a social network perspective.

3.4.3 Effects and impacts of SBMs and sustainability practices

The benefits of SBMs, such as those in articles identifying the value created by SBMs in the tourism industry (Kruczek and Szromek, 2020), exploring the impact of CSR training and practices on business outcomes (López-Pérez et al., 2017), studying their investment attractiveness (de Lange, 2017) or exploring SBMs impact on regional policy and investment planning (Robinson et al., 2017).

3.5 Developmental articles

A lesser share of articles aimed at developing or elaborating on certain archetypes and hypotheses related to sustainability and business models, including Bocken et al.'s (2014) literature review to develop SBMs archetypes and Tate and Bals' (2016) study proposing a social resource-based view (social RBV). Daou et al. (2020) devised a tool using the Eco canvas for developing circular economy business models and Minatogawa, Franco, Rampasso et al. (2019) developed a tool for business model innovation in sustainable SMEs. Additionally, frameworks were proposed with contextual practical utilisation, such as Townsend et al. (2019) who identified and developed SBM for the fashion industry or Ünal et al. (2019) who created a circular business model for SMEs in the construction/building sector.

3.6 Testing articles

The smallest proportion of the literature reviewed aimed at testing the readiness of SMEs for sustainability and eco-innovation (Pigosso et al., 2018) or at assessing the financial viability of SBMs (Hamid and Blanchard, 2018) and their financial models (Elmustapha and Hoppe, 2020).

3.7 Research setting

The sectors that were represented in the articles reviewed are illustrated in Figure 1. There was a wide representation of multiple sectors in the reviewed articles. It was found that over one-third of the articles (29) were sector agnostic, such as those accounting for the relation between firm size and SBM innovation (Aguilar-Fernández and Otegi-Olaso, 2018); those reviewing and developing SBM archetypes (Bocken et al., 2014); those studying the SBMs' impact on attractiveness (de Lange, 2017); or those exploring how digital technologies can enable the adoption and activation of SBMs (Gregori and Holzmann, 2020).

The most represented sectors in our systematic literature review were manufacturing (7 articles), e.g. investigating the barriers for product-service systems transformation into sustainable models (de Jesus Pacheco et al., 2019), and food and beverage (7 articles), such as the work of Long et al. (2018) identifying critical success factors for food SMEs transforming into SBMs in the Netherlands. These sectors were followed by hospitality (6 articles), e.g. Buffa et al. (2018) who reviewed environmental management practices for SBMs in small- and medium-sized hotels in the Italian Alps. Next was agriculture (5 articles), with Cederholm Björklund (2018) identifying barriers to SBM innovation in this sector. The fashion industry was investigated in 5 articles, with one developing an SBM for the fashion industry (Townsend et al., 2019). The study of social enterprises was the focus of 5 articles, e.g. developing a roadmap for transforming a non-governmental organization (NGO) into a sustainable social enterprise (Dumalanède and Payaud, 2018). Renewable energy was addressed in 5 articles with one assessing workable financial models for solar energy SMEs (Elmustapha and Hoppe, 2020).

Other sectors covered included construction (3 articles), electricity (2), automotive (2), forestry (2), sharing economy (2), ecological start-ups (1), industry 4.0 (1), business services (1), pharmaceuticals (1) and NGOs (1).

Table 2. Overview of the research aims found in the papers reviewed

Research aim	Topic	Authors
Explore	Challenges and barriers to SBMs adoption	de Jesus Pacheco et al., 2019; Brozovic, 2019; Govindan et al., 2020; Caldera et al., 2019; Rizos et al., 2016; Cederholm Björklund, 2018; Linder and Williander, 2015; Staicu and Pop, 2018; Long et al., 2018; Baldassarre et al., 2020; Ahlgren Ode and Lagerstedt Wadin, 2019; Battistella et al., 2018; Soltysova and Modrak, 2020
	Enablers, influencers, and success factors	Buffa et al., 2018; Bolesnikov et al., 2019; Bonadonna et al., 2019; Caldera et al., 2019; Rizos et al., 2016; Staicu and Pop, 2018; Long et al., 2018; Battistella et al., 2018; Dyck and Silvestre, 2018; Ievoli et al., 2019; González-Varona et al., 2020; Gregori and Holzmann, 2020; Voinea et al., 2019; Peralta et al., 2019; Belyaeva et al., 2020; Vongchan, 2020; Real et al., 2020; Veleva and Bodkin, 2018; Halme and Korpela, 2013; Karlsson et al., 2017; Filser et al., 2019; Bocken, 2015
	SBM evolution, life cycle and path dependencies	Brozovic, 2019; Bohnsack et al., 2014; Szromek, 2019; Olofsson et al., 2018; Byerly, 2014
	Benefits of SBMs	(Kruczek and Szromek, 2020; Matinaro et al., 2019)
	Impact on financial performance and shareholders/ firm value	López-Pérez et al., 2017, 2018; Broccardo and Zicari, 2020; Okanga and Groenewald, 2017
	Impact on investment attractiveness and policy planning	de Lange, 2017; Robinson et al., 2017
	Role in value creation and delivery	Winslow and Mont, 2019; D'Amato et al., 2020; Tate and Bals, 2016; Ünal, et al., 2019; Dyck and Silvestre, 2018; Müller and Voigt, 2018; Cannas et al., 2018; Gregori et al., 2019; Henriques and Catarino, 2015; Kuckertz et al., 2019
	SBMs characteristics and practices	Mura et al., 2020; Matzembacher et al., 2020; Stubbs, 2017; Jolink and Niesten, 2013; Sedlmeier et al., 2019; Nigri and Del Baldo, 2018; Plank et al., 2016; Dumalanède and Payaud, 2018; Hahn and Ince, 2016
	Relations with other areas of management research	García-Álvarez de Perea et al., 2019; Filser et al., 2019; Müller and Voigt, 2018; Gregori et al., 2019; Rosca et al., 2017; Chaurasia et al., 2020; Davies and Chambers, 2018; Lüdeke-Freund, 2019
	Interdependence on organisational factors	Hahn et al., 2018; Aguilar-Fernández and Otegi-Olaso, 2018
	Ecosystem and network relationships	(Neumeyer and Santos, 2018; Bocken, 2015; Cannas et al., 2018; Valdez-Juárez et al., 2018)
Develop	Archetypes and hypotheses	Bocken et al., 2014; Tate and Bals, 2016; Hamid and Blanchard, 2018; Soltysova and Modrak, 2020; Byerly, 2014; Safar et al., 2018; Lee and Chang, 2019; Svobodová and Urbancová, 2016; Pattinson, 2019)
	Tools	(Daou et al., 2020; Minatogawa, Franco, Rampasso et al., 2019; Henriques and Catarino, 2015; Ulvenblad et al., 2018; Minatogawa, Franco, Durán et al., 2020)
	Frameworks	Townsend et al., 2019; Ünal, et al., 2019; Lüdeke-Freund, 2019; Todeschini et al., 2017
Test	Readiness for implementation	Pigosso et al., 2018
	Financial viability	(Hamid and Blanchard, 2018; Elmustapha and Hoppe, 2020)

Source: The authors

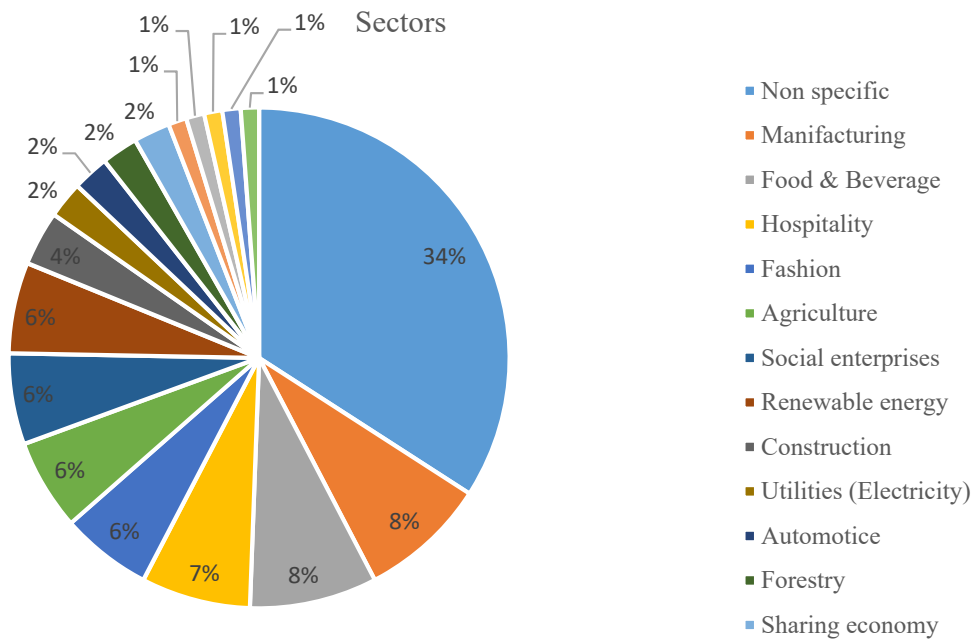


Figure 1. Paper distribution by sector

Source: The authors

The geographical distribution of the reviewed papers is summarised in Figure 2. The majority of papers were conducted in Europe, with 52 articles, followed by the US and Latin America with 7 papers each. There were 6 research papers studied in Asia, followed by Africa with 2 papers. Only 2 studies were conducted in Australia and 1 in the Middle East, while 8 papers covered more than one continent (e.g. Matzembacher et al., 2020).

Of the 52 studies conducted in Europe, those conducted in Sweden predominated with 8 articles, such as Brozovic's (2019) research on business models related to strong sustainability and Ulvenblad et al.'s (2018) study focusing on SBMs role in innovating business activities. Studies conducted in Spain came second, such as the study by Peralta et al. (2019) addressing SBM development. With respect to studies that covered multiple locations, some investigated SBMs for start-ups across different continents (e.g. North America, Europe and Asia: de Lange, 2017), while others had a regional focus (e.g. Nordic countries: Halme and Korpela, 2013).

Outside Europe, research on SBMs in SMEs was conducted in the US (e.g. Neumeier and Santos, 2018; Kuckertz et al., 2019), while 6 studies were conducted in Brazil (e.g. Barbieri and Santos, 2020; Minatogawa, Franco, Rampasso et al., 2019) and 1 in Mexico (Valdez-Juárez et al., 2018), representing contributions from Latin America.

The 6 articles from Asian countries were conducted in China (Müller and Voigt, 2018), India (Chaurasia et al., 2020; Govindan et al., 2020), Taiwan (Lee and Chang, 2019; Matinaro et al., 2019) and Thailand (Vongchan, 2020). Some studies were conducted in Africa, such as those by Gregori et al. (2019) in Uganda and Hamid and Blanchard (2018) in Kenya. Finally, Elmustapha and Hoppe (2020) studied the topic of SBMs in Lebanon in the Middle East.

From the above information, it can be concluded that the study of SBMs in SMEs is dominated by contributions from Europe.

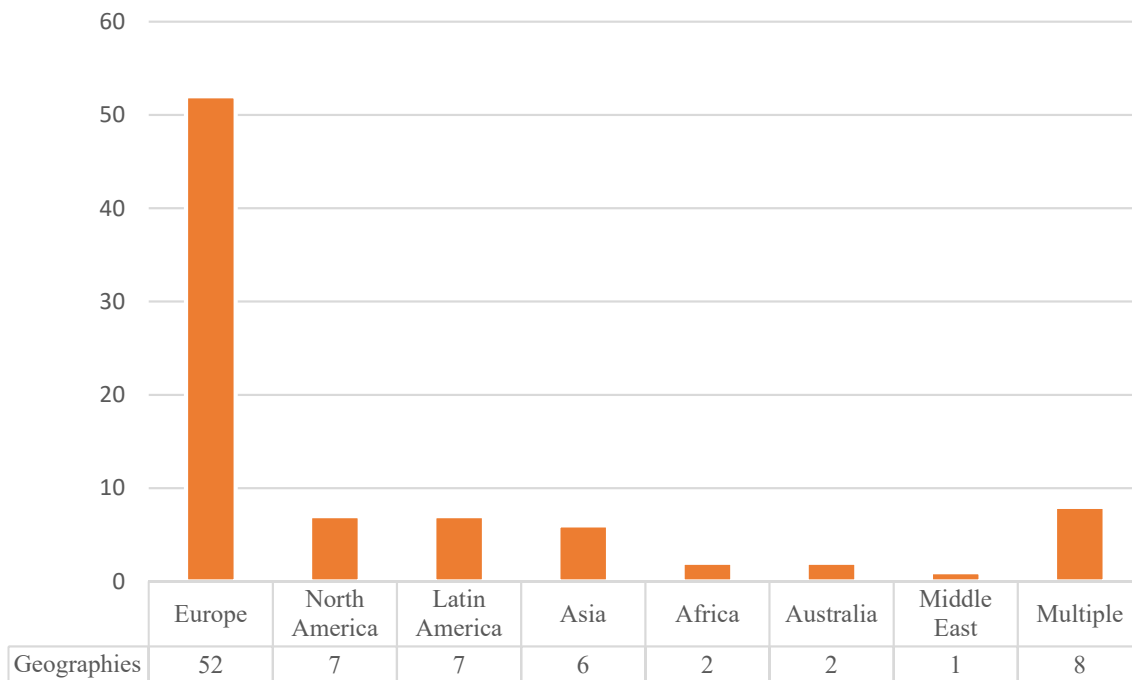


Figure 2. Paper distribution by geography

Source: The authors

3.8 Theories and theoretical perspectives

The theories and perspectives applied in the reviewed papers are summarised in Table 3. The table clarifies that researchers in the field of SBMs in SMEs applied several different theories to study the topic under investigation, such as the resource-based view (RBV), institutional theory and stakeholder theory. Even though the use of the Business Model Canvas as a tool for approaching business models is still used, findings suggest that an increasing number of authors is using alternative theories to develop a more scientific and grounded understanding of business models in order to increase the research field's legitimacy. Our findings also show that several authors used more than one theory/theoretical perspective. The table below highlights the theories and theoretical perspectives applied by the authors to study the field of SBMs in SMEs.

3.9 Research methods

Figure 3 provides an overview of the research methods used in the reviewed articles and Table 4 provides a further breakdown of each method. In addition, the table provides some additional details about the concrete techniques used in the different articles. One can see that the papers primarily utilised mono methods or case study methods (31 papers each). Case study papers can be further divided into case studies in general—as the authors remained silent about their actual case study approach—single case study approaches and multiple case study approaches.

A total of 9 articles were assigned to the category of theoretical/conceptual papers. This is followed by multi-method papers (i.e. the ones that used more than one research method: 7 papers) and mixed methods papers (i.e. the ones that mixed qualitative and quantitative methods/data: 3 papers). There were 5 articles based on rarer approaches in this research field – namely, design science research method (4 articles) and action research (1 paper).

Table 3. Theories and theoretical perspectives

Theories and theoretical perspectives	Authors
Triple Bottom Line	Tate and Bals, 2016; Battistella et al., 2018; Dyck and Silvestre, 2018; Bocken, 2015
Business Model Canvas	(Bonadonna et al. 2019; , Robinson et al., 2017; Daou et al., 2020; Okanga and Groenewald, 2017; Müller and Voigt, 2018; Dumalanède and Payaud, 2018; Aguilar-Fernández and Otegi-Olaso, 2018
Social Contract Theory	Byerly, 2014
Institutional Theory Perspective/ Institutional Logics Perspective	Winslow and Mont, 2019; Caldera et al., 2019; Gregori and Holzmann, 2020; Gregori et al., 2019
S-D logic	Cannas et al., 2018
Hybrid Organisational Theory	Matzembacher et al., 2020; Davies and Chambers, 2018
Corporate Social Responsibility	(de Lange, 2017
Internationalisation Theories	García-Álvarez de Perea et al., 2019)
Resource-based View	(López-Pérez et al., 2017a; Tate and Bals, 2016; Townsend et al., 2019; Dyck and Silvestre, 2018; Halme and Korpela, 2013; López-Pérez et al., 2017b
Socio-technical Transition Theories	Elmustapha and Hoppe, 2020
Value Analysis Methodology	Henriques and Catarino, 2015
Social Capital Theory	López-Pérez et al., 2017b; Voinea et al., 2019
Stewardship Theory	López-Pérez et al., 2018
Socioemotional Wealth Theory	López-Pérez et al., 2018
Agency Perspective	Lüdeke-Freund, 2019
Systems Perspective	Lüdeke-Freund, 2019
Stakeholder	Vongchan, 2020; Matinaro et al., 2019; Valdez-Juárez et al., 2018
Organisational Ambidexterity	Minatogawa, Franco, Durán et al., 2020
Network Theory	Neumeier and Santos, 2018
Technological Innovation Systems	Planko et al., 2016

Source: The authors

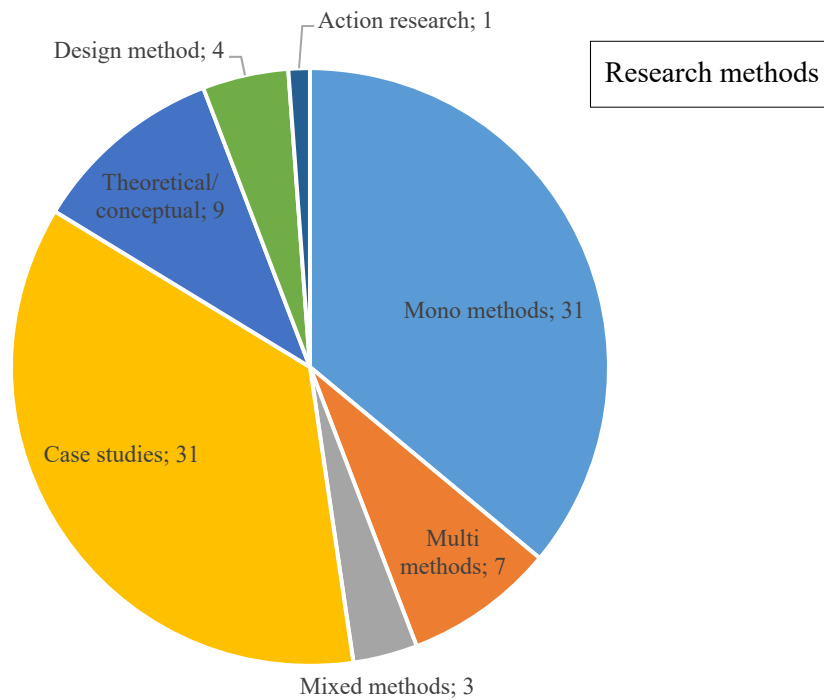


Figure 3. Overview of research methods

Source: The authors

Table 4. Overviews of research methods covered in the papers analysed

Research methods	Number of papers
Mono methods	31
<input type="checkbox"/> Interview studies	10
<input type="checkbox"/> Questionnaires	11
<input type="checkbox"/> Use of secondary data/creation of own database	
<input type="checkbox"/> Decision-making trial and evaluation laboratory (DEMATEL)	1
<input type="checkbox"/> Sensitivity analysis	1
<input type="checkbox"/> Different types of regressions	1
<input type="checkbox"/> PCA and cluster analysis	1
<input type="checkbox"/> Logistic function	1
<input type="checkbox"/> Mystery shoppers	1
<input type="checkbox"/> Content analysis	2
<input type="checkbox"/> Workshops	1
<input type="checkbox"/> Participative observations	1
Multi methods	7
<input type="checkbox"/> Open interviews followed by semi-structured interviews	1
<input type="checkbox"/> Semi-structured interviews conducted with individuals and groups	1
<input type="checkbox"/> Observation, interviews plus secondary data	1
<input type="checkbox"/> Semi-structured interviews, homepages, blog posts, social media, newspaper articles, videos	1
<input type="checkbox"/> Expert interviews, specialised press, number of start-ups	1
<input type="checkbox"/> Interpretative phenomenology analysis and action research	1
<input type="checkbox"/> Secondary data (media, research works) and semi-structured interviews	1
Mixed methods	3
<input type="checkbox"/> Interviews, surveys & focus groups	1
<input type="checkbox"/> Semi-structured interviews, Business Model comparisons, GIS landscape analysis, value potential and ROI scenarios	1
<input type="checkbox"/> Structured survey and case studies	1
Case studies	31
<input type="checkbox"/> Case study approach	3
<input type="checkbox"/> Development of a conceptual tool that was then tested in firms	1
<input type="checkbox"/> Interviews, process analysis, company records	1
<input type="checkbox"/> Site visits, talks	1
<input type="checkbox"/> Semi-structured interviews, online publications, newsletters, professional publications	1
<input type="checkbox"/> Semi-structured interviews, open interviews, archival data	1
<input type="checkbox"/> Qualitative case study; in-depth/semi-structured interviews	2
<input type="checkbox"/> In-depth personal interviews, documents, field visits	1
<input type="checkbox"/> Exploratory; corporate documents, websites, press releases	1
<input type="checkbox"/> Interviews and questionnaire	1
<input type="checkbox"/> Publicly available information: websites, annual/sustainability reports, in-depth semi-structured interviews	1
<input type="checkbox"/> Instrumental design; interviews, field notes, photos, and printed marketing material	1
Single case study approach	
<input type="checkbox"/> Interviews, official and internal documents	1
<input type="checkbox"/> Semi-structured interviews, secondary data	1
<input type="checkbox"/> Longitudinal action research; observation, semi-structured interviews, decision-making meetings, structured interviews, market segment survey, customer interviews and follow-up interviews	1
<input type="checkbox"/> Semi-structured interviews, focus groups and archival data	1
<input type="checkbox"/> Single embedded, semi-structured interviews	1
<input type="checkbox"/> Quantitative and qualitative information	1
<input type="checkbox"/> Exploratory; semi-structured interviews, website, company blogs, magazines, documents	1
Multiple case study approach	
<input type="checkbox"/> Semi-structured interviews, press reviews, websites and archival documents	1
<input type="checkbox"/> Interviews, websites, news databases, internal documents	1
<input type="checkbox"/> Semi-structure interviews	3
<input type="checkbox"/> Deductive case study logic, one-year period, interviews, websites, social media, blogs	1
<input type="checkbox"/> Interviews, websites, product specifications, news media	1
<input type="checkbox"/> Exploratory; use of publicly available documents	1
<input type="checkbox"/> Exploratory; semi-structured interviews	1

Table 4 (continued)

Theoretical/conceptual papers	9
<input type="checkbox"/> (Systematic) literature reviews	3
<input type="checkbox"/> Conceptual papers	4
<input type="checkbox"/> Bibliometric technique	1
<input type="checkbox"/> Theoretical paper	1
Design science research method	4
Action research method	1

Source: The authors

3.10 Unit of analysis

The majority of studies reviewed in this paper used the individual as the unit of analysis, including business owners (e.g. Cannas et al., 2018), entrepreneurs (e.g. Davies and Chambers, 2018) and managers (e.g. López-Pérez et al., 2017).

Some studies were also interested in studying SBMs from a group perspective. For instance, Barbieri and Santos (2020) investigated a group of managers and employees in the veterinary homeopathy pharmaceutical industry, while Lee and Chang (2019) involved a group of department heads, managers and workers in their research on SBMs in forestry firms.

We also found studies that had groups of enterprises as their unit of analysis, e.g. SME food chains (Bonadonna et al., 2019) and a mixed group of SMEs and start-ups in the food and beverages sector (Long et al., 2018).

3.11 Themes of interest

The articles that were analysed explored SBMs from different perspectives, trying to identify their characteristics, how they are affected and impacted by other ecosystem components and how theories about their development and evolution can be synthesised. We identified five broad themes running through them in relation to SBMs in SMEs (see Table 5).

As indicated in Table 5, articles studying the antecedents of SBMs and their activation/realisation had the most representation, with 24 and 21 articles, respectively. This is understandable because the concepts of sustainability, SBMs and business model innovation are relatively new to research and have had exponential growth in interest in recent years across both policymaking and industry.

The extant literature has explored several challenges and barriers such as: lack of financial resources and knowledge (Caldera et al., 2019); internal practices related to the lack of competence and follower mentality (de Jesus Pacheco et al., 2019); and mental models and obsolete paradigms (Brozovic, 2019). Others have considered the prerequisites and requirements affecting SBM adoption and implementation – e.g. Rizos et al. (2016) focus on company culture and networks; Dyck and Silvestre (2018) on organisational capabilities and Caldera et al. (2019) on highlighting integrated strategy and stakeholder engagement. Papers examining possible methods for the successful integration and

Table 5. Classification of themes

Theme	Number of articles
Antecedents	24
Activation	21
Relational	15
Theoretical	14
Effects	11
Total	85

Source: The authors

operationalisation of SBMs within organisations included Jolink and Niesten's (2013) suggestions for leveraging network partners and Elmustapha and Hoppe's (2020) identification of financial models for sustainable SMEs.

Following from there, several articles explored the relations between SBMs, sustainability and other variables. One group of articles explored relations with other fields of management research, such as frugal innovation (Rosca et al., 2017), hybridity and BM theory (Davies and Chambers, 2018) and open innovation (Chaurasia et al., 2020). Another group of researchers explored the relationship with organisational factors, such as business size (Aguilar-Fernández and Otegi-Olaso, 2018) or commercial orientation (Hahn et al., 2018). A third group looked at how SBMs interact with ecosystem forces, such as the availability of venture capital (Bocken, 2015), social networks influence (Neu-meyer and Santos, 2018), supply chain innovation (Valdez-Juárez et al., 2018) or the intersections of sustainable entrepreneurship, sustainability innovation and business models (Lüdeke-Freund, 2019).

As expected with a nascent field of research, there were articles of theoretical nature trying to develop our understanding of SBMs in SMEs. These papers suggested SBM archetypes (Bocken et al., 2014), addressed the evolution of various forms of SBMs (Byerly, 2014), proposed a sustainable value methodology (Henriques and Catarino, 2015), investigated SBM characteristics such as culture and orientation (Hahn and Ince, 2016) and proposed an extension of the RBV to a social RBV (Tate and Bals, 2016). Other papers provided a classification for sharing economy business models (Soltysova and Modrak, 2020) as well as tools for business model innovation (Minatogawa, Franco, Rampasso et al., 2019; Minatogawa, Franco, Durán et al., 2020). Additional articles developed frameworks to support SBM development and implementation in multiple contexts – e.g. in fashion (Todeschini et al., 2017; Townsend et al., 2019), construction (Ünal et al., 2019) and others.

Finally, there were empirical papers that assessed the effects/impacts of SBMs on investment attractiveness (de Lange, 2017), shareholder value (López-Pérez et al., 2017), market performance (Okanga and Groenewald, 2017), policy and regional investment planning (Robinson et al., 2017) and business outcomes (López-Pérez et al., 2018). Only a few papers investigated the benefits of SBMs (Kruczek and Szromek, 2020; Matinaro et al., 2019).

5. Avenues for further development

Conducting this literature review helped us identify several limitations in the existing literature, which can serve as the basis for future research. First, our findings are in line with Miller et al.'s (2020) observation that the heterogeneity found in SMEs has not been addressed in the papers analysed for this systematic literature review. One may argue that researchers either underestimated this aspect or did not take it into account at all. Given the fact that a micro company cannot be compared with a medium-sized company, we follow Miller et al. (2020) and call for future research that takes into consideration the differences found amongst SMEs and tries to understand their implications for SBMs, its development and continued adaption. These activities may also lead to the identification of dominant business models that take into consideration size and industry differences.

Our findings have also clarified that the study of failure regarding SBM activities – e.g. failed business model innovation – is missing/underdeveloped. Thus, one can conclude that the call by Geissdoerfer et al. (2018) still prevails. Given the higher failure rate of small firms, particularly new ones, in comparison to their larger counterparts (Mayr and Lixl, 2019), there is a clear need for research to turn towards failed activities as well to advance our understanding of SBMs in SMEs.

From a geographical coverage perspective, it appears that most literature had thus far focused on Europe, with scarce amounts of research performed in Latin America outside of Brazil or in Africa and the Middle East. Hence, we call for more research to focus on exploring the topic of SBMs in SMEs in developing countries from these regions in particular.

With regards to the sectors in which the SMEs in the reviewed articles operated, it seems that the current literature only covers a narrow spectrum of industries – i.e. manufacturing, agriculture and fishing; renewable energy; fashion; tourism; and, to a limited extent, renewable manufacturing; forestry; sharing economy; and construction. These are commonly the sectors that are closely connected with sustainability and social enterprise themes. However, research is missing on SBMs in SMEs representing other crucial industries, such as advanced and heavy manufacturing, pharmaceuticals, fossil fuel and energy and traditional automotive, or service sectors, such as information technology and communications, healthcare, education and learning and retail. SMEs operating in those sectors were not studied in the reviewed articles, neither empirically nor theoretically.

Papers exploring the effects of SBMs focused on traditional measures for assessing business outcomes – those related to finances, such as the financial performance of a company, shareholders and firm value as well as the investment attractiveness of SBMs and companies adopting them. Even when exploring policy implications, the reviewed papers primarily focused on the investment planning aspect. We suggest that future research should investigate the impact of SBMs, with their practices and innovations, using other business metrics, including employee satisfaction and retention, brand reputation and customer engagement as well as knowledge generation and innovation ability of the company. Additionally, we advise future research to look beyond business outcomes into sustainability-related indicators—those related to the adoption of SBMs by SMEs. We also advise studying the links with regional and national policy planning and implementation while using different lenses than the financial one. As the majority of studies investigating the impact of SMEs' adoption of SBMs on firm performance and the local economy followed a qualitative exploratory approach, we suggest that future research on this link could adopt/include quantitative methods.

The scarcity of papers aimed at testing devised theories or theoretical frameworks can be attributed to the relative nascency of this research area. Most researchers are thus far mainly inclined towards adopting an exploratory approach. Acknowledging recent developments that show an increasing production of multiple theoretical frameworks, we suggest that more researchers should follow this promising path and turn towards the testing of the knowledge developed.

With regard to the methods used, the reviewed studies suggest that the case study methodology—often based on different types of interviews, i.e. semi-structured interviews, in particular – has been overused. Future research should consider using different research methods and paradigms, going beyond the typical ones. With respect to the latter, inclusive research approaches may prove useful to advance research on SBMs in SMEs. Moreover, there is also room for more longitudinal research projects to further our understanding of the activities and efforts undertaken in SMEs with regards to the SBM development and thus the hampering and supporting factors encountered.

6. Conclusion

In view of the increasing relevance and wider acknowledgement of SBMs, a better understanding of this topic is essential and can contribute to greater development and improvement in the awareness related to this specific type of business model. Accordingly, the purpose of this paper was

to systematically review research on SBMs in SMEs in order to establish the current body of knowledge regarding this topic. The focus on SMEs is logical given their impact on European economies and, consequently, on their further sustainable development (European Central Bank, 2021).

Based on a total of 85 reviewed papers, the current frame of knowledge regarding SBMs in SMEs was determined and specified. This has helped us develop a more comprehensive view of the topic and, in turn, has formed a basis for upcoming research activities.

The study has practical implications that could be helpful to SME managers and entrepreneurs who are considering the adoption and promotion of SBMs in their organisations. As was determined in this study, there is already a good understanding of both the supporting and hampering factors that practitioners should be aware of.

The authors are aware that the present study is not without limitations. Due to the chosen research procedures, this study may not have enabled complete coverage of all scientific articles in the field of SBMs in SMEs. Nevertheless, it seems reasonable to assume that the review process covered a large portion of available studies.

The future research avenues proposed here, although perhaps not exhaustive, are viewed as possible further steps for the advancement of research on SBMs in SMEs.

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