Business Models for Sustainability: A Systematic Literature Review and Future Research Avenues

Hellara Ouiem

IAE Lille, University School of Management

wiemhellara4@gmail.com

ABSTRACT

In light of growing environmental and societal challenges, companies must rethink their business models to integrate sustainability principles. Addressing these challenges requires profound transformations in how firms create, deliver, and capture value. In this context, business models for sustainability (BMfS) emerge as a crucial framework for incorporating sustainability. The literature on business models for sustainability has gained significant attention in recent years, establishing itself as an emerging research field. To provide an in-depth understanding of this domain, a systematic literature review was conducted, analyzing 118 peer-reviewed articles selected from four databases. This article offers a comprehensive overview of the current literature and identifies research gaps and emerging trends. Additionally, this review proposes promising avenues for advancing BMfS literature.

Keywords: Business Model, Sustainability, Business model for sustainability, Systematic Literature Review.

RÉSUMÉ

Face aux défis environnementaux et sociétaux croissants, les entreprises doivent repenser leurs modèles économiques pour y intégrer les principes de la soutenabilité. Pour relever ces défis, il est nécessaire de transformer radicalement la manière dont les entreprises créent, délivrent et capturent de la valeur. Dans ce contexte, les business modèles soutenables apparaissent comme un cadre crucial pour l'intégration de la soutenabilité. La littérature sur les business modèles soutenables a attiré une attention significative ces dernières années, s'imposant comme un champ de recherche émergent. Afin de fournir une compréhension approfondie de ce domaine, une revue systématique de la littérature a été menée, analysant 118 articles, sélectionnés à partir de quatre bases de données. Cet article donne un aperçu de la littérature actuelle et identifie les gaps et les tendances émergentes. En outre, cette analyse suggère des pistes prometteuses pour faire progresser la littérature sur les business modèles soutenables.

Keywords: Business Model, Sustainability, Business model for sustainability, Systematic Literature Review.

1. INTRODUCTION

Sustainability has been attracting growing attention from both scholars and practitioners in recent years (Preghenella & Battistella, 2021), as it is considered a key strategic issue for companies. Businesses today are expected to respond accordingly to social and environmental concerns as well as their shareholders' economic interests (Geissdoerfer et al., 2018). Various factors drive companies to rethink their role within society (Preghenella & Battistella, 2021). First, companies recognize that generating economic value might not be the only or most crucial contribution they can make (Hart & Milstein, 2003). Second, companies are subject to external pressures to address their environmental impacts due to rapid economic development and increasing resource demands (Preghenella & Battistella, 2021). In this context, the ability to innovate in sustainability represents an essential business capability, covering both minor incremental steps and radical, disruptive innovations (Adams et al., 2012).

However, addressing sustainability challenges necessitates profound transformations in business models (BMs) (Olesson et al., 2023), as they reflect the firm's business strategy (Teece, 2010). Hence, organizations need to reconsider their business models to implement sustainability principles (Foss & Saebi, 2017; Ademi et al., 2025). Business model innovation is emerging as a promising mechanism for incorporating sustainability into business operations (Schaltegger et al., 2012; Jolink & Niesten, 2015) and implementing business models for sustainability (Geissdoerfer et al., 2018).

The literature on business models for sustainability (BMfS) has garnered increasing attention in recent years, constituting itself as an emerging research field (Preghenella & Battistella, 2021). However, the literature on BMfS remains dispersed, with a lack of clear definitions (Lüdeke-Freund & Dembek, 2017). Hence, the need for further in-depth investigation and

future research. Additionally, while many studies focus on specific aspects or concepts of BMfS, there is a need for a comprehensive and systematic reviews that adopt a broader, holistic perspective (van Bommel et al., 2020). In response to this gap, this study conducts a systematic literature review. Its objectives are to explore and analyze the current literature on business models for sustainability. It also allows us to identify research gaps and promising research avenues. Specifically, the research questions are the followings: What does the literature indicate about business models for sustainability? and what gaps and future research avenues can be identified?

In the following sections, we first present the conceptual foundations of this article. Second, we expose the method employed to carry out this systematic review. Following this, we present a descriptive analysis of the selected articles, providing an overview of the trends, thematic focuses, and methodological approaches observed in the literature. Finally, we delve into a content analysis to uncover deeper insights and discuss potential directions for future studies, thereby contributing to the ongoing discourse on business models for sustainability.

2. CONCEPTUAL FOUNDATIONS

The literature on business models for sustainability (BMfS), also referred to as "sustainable business models" or "sustainability business models," has expanded rapidly (Pinkse et al., 2023). Various definitions of BMfS have been advanced in the literature (Boons & Lüdeke-Freund, 2013; Schaltegger et al., 2016; Geissdoerfer et al., 2018).

According to Stubbs & Cocklin (2008), BMfS is characterized as a model in which sustainability principles drive the strategic orientation of a company and its decision-making processes. In fact, a fundamental characteristic of BMfS lies in their decision-making logic,

which prioritizes sustainability as the primary driver (Stubbs & Cocklin, 2008), positioning profit generation as a secondary rather than dominant objective (Boons & Lüdeke-Freund, 2013; Bocken et al., 2014; Evans et al., 2017). Thus, a BMfS necessitates the alignment of the company's vision and mission with economic, environmental and social objectives, considering profits as a mean to achieve such goals (Stubbs & Cocklin, 2008). Bocken et al. (2014) note that implementing BMfS needs adjustments across the entire value chains. This involves enhancing connections between producers, consumers, investors, distributors and recyclers, to ensure a fair distribution of costs and benefits. Moreover, such models are designed to create value for various stakeholders and the natural environment (Abdelkafi & Täuscher, 2016). Therefore, achieving sustainability requires a fundamental transformation of a firm's business logic. Abdelkafi & Täuscher (2016) introduced a framework for business models for sustainability that integrates four key components: *"the firm, the environment, the decision-maker and the customer"*. This approach focusses on the firm's ability to create value, deliver value to customers and the natural environment as well as capture value for itself. From a similar perspective, Roome & Louche (2016) underline the importance of internal and external stakeholders when defining the concept of business model for sustainability. The authors note that new BMs for sustainability are developed through interactions between individuals and groups outside and inside organizations. These interactions are based on three elements: the development of networks and collaborative practices to support learning and actions aligned with a new vision, the integration of new concepts from outside the firm and the deployment as well as the implementation of structures in a reconfigured network (Roome & Louche, 2016). Schaltegger et al. (2016), propose also a definition of BMfS and highlight the importance of creating value for a broader range of stakeholders and the natural environment. According to Schaltegger et al. (2016), a BMfS *"helps describing, analyzing, managing, and communicating*

(i) a company's sustainable value proposition to its customers, and all other stakeholders, (ii) how it creates and delivers this value, (iii) and how it captures economic value while maintaining or regenerating natural, social, and economic capital beyond its organizational boundaries."

Besides, the identification of multiple BMfS archetypes and patterns has provided valuable inspiration for firms aiming to incorporate sustainability (Mignon & Bankel, 2023). Specifically, Bocken et al. (2014) categorized eight BMfS archetypes, while Yip & Bocken (2018) identified four additional BMfS archetypes relevant to the banking sector. Lüdeke-Freund et al. (2018) introduced 11 groups of BMfS pattern. The development and the implementation of a BMfS are recognized as the effective strategy for organizations to achieve social and environmental goals, while minimizing adverse impacts (Pinkse et al., 2023). Adopting a BMfS could create growth opportunities, lower cost and enhance competitive advantage (Bocken et al., 2014). Therefore, BMfS represents a solution for organizations to simultaneously achieve economic and sustainability goals (Preghenella & Battistella, 2021). However, the process of incorporating sustainability into business models requires further research (Lecocq et al., 2023)

Despite this significant expansion, the BMfS literature remains relatively recent and still fragmented (Lüdeke-Freund & Dembek, 2017), presenting various nuances (Preghenella & Battistella, 2021). This highlights the ongoing need of a comprehensive and in-depth review of BMfS (Preghenella & Battistella, 2021).

3. METHOD

We carried out a systematic literature review (Tranfield et al., 2003; Fink, 1998), an approach that stands apart from conventional reviews by focusing on *"synthesizing research in a*

systematic, transparent, and reproducible manner" (Tranfield et al., 2003). This method is commonly used to explore new emerging subjects, eliminate uncertainties, and provide a synthesis (Thorpe et al., 2005). Moreover, it aims to identify and provide avenues of research and hence expand the domain (Jones, 2004). The following table (Table 1) depicts the research protocol applied in this systematic review.

Table 1. The research protocol

RESEARCH PROTOCOL	DESCRIPTION
Databases	Four databases were used: Wiley, Web of Science, ScienceDirect, and EBSCO Business source complete.
Timeframe	Up to and including 2024.
Search fields	Searches are carried out first in the title, abstract, and keywords. Then in the full text.
Research equation	("Business model" OR "BM") AND ("Sustainab* business model" OR "SBM" OR "Business model* for sustain*" OR "sustainab*")
Inclusion/exclusion criteria	-Only peer-reviewed literature was considered. Searches were limited to journal articles. -Only publications in English were considered. -Only articles in the disciplines of management sciences and social and economic sciences were selected. - Studies primarily focused on business models for sustainability and business model innovation for sustainability.

Systematic literature reviews have recently been conducted in the social and management sciences. In line with prior reviews, this article aims to investigate the existing literature on BMfS (Lüdeke-Freund et al., 2024; Van Bommel et al. 2020). Within this regard, we used the PRISMA (preferred reporting items for systematic reviews and meta-analysis) approach to effectuate this systematic review (Moher et al., 2015). This allows us to follow transparent and reproducible procedures of selection, analysis and presenting previous findings in the studied field (Moher et al., 2009). This method is proposed as a flow chart in four phases to ensure transparency and clarity (Moher et al., 2015). In this sense, the PRISMA flow diagram below (Figure 1) exposes the four phases; identification, screening, eligibility and inclusion.

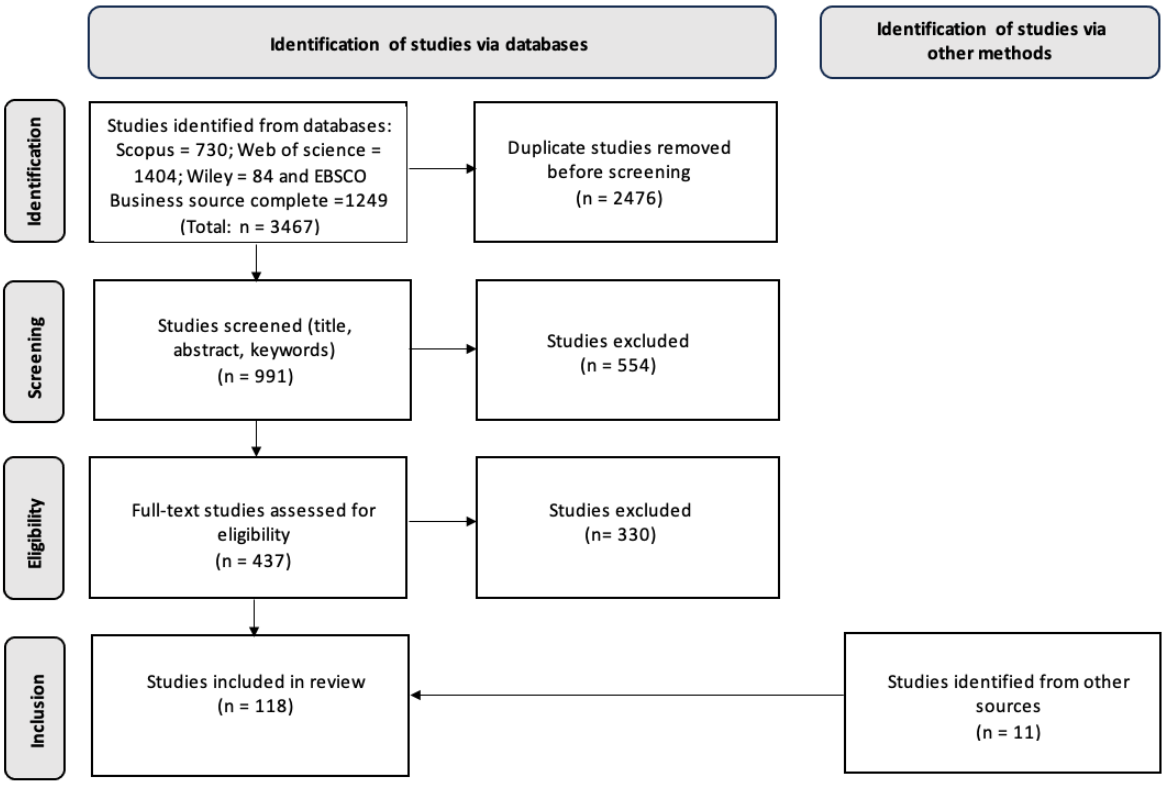

Figure 1: Prisma flow diagram

3.1. IDENTIFICATION PHASE

To ensure the identification of all relevant articles, searches were undertaken across four databases, namely Wiley, Web of Science, ScienceDirect Scopus, and EBSCO Business source

complete. Regarding the keywords, the analysis of various articles helped us to identify a list of terms to be included in the search. In this way, our search equation is: ("Business model" OR "BM") AND ("Sustainab* business model" OR "SBM" OR "Business model* for sustain*" OR "sustainab*"). Following this, we adopted the same approach for each database. We proceeded to search in the title, abstract, or keywords of the publications. Only articles in the disciplines of management sciences and social and economic sciences were selected. Furthermore, we have limited the publications to peer-reviewed journal articles. Book chapters, books, seminar and conference papers, company reports, editorial notes, and doctoral theses were not considered. Thus, this is the standard approach for systematic reviews because it ensures quality control that validates the knowledge provided (Light et al.,1984). We also covered the entire available period up to and including 2924. In addition, only works in English were considered.

This step allowed us to restrict the search results to publications addressing business model for sustainability. As a result, we identified 3467 eligible articles for the selection phase.

3.2. SCREENING PHASE

We removed duplicates, reviewed all articles by reading their titles and abstracts so that we could identify work that may accord with our research guidelines. This was done in light of our inclusion and exclusion criteria. In this regard, 437 articles were selected for full-text evaluation.

3.3. ELIGIBILITY PHASE

This third step involved analyzing the eligibility of the articles on the basis of inclusion and exclusion criteria. In order to accomplish this, we read the articles one by one, in full text, after checking the availability of the full text. Articles based on contexts or interpretations other than

those pursued, were excluded. Therefore, in order to be included, an article must clearly evoke the concept of business model for sustainability as a main concept of the article.

3.4. INCLUSION PHASE

It is also important to mention that 11 additional articles, identified from other sources, were added to our selection. In fact, articles not included in the databases but cited by many selected articles were included, avoiding the possibility to skip any relevant reference for our research. In sum, this approach allowed us to select and analyze 118 articles eligible for content analysis in order to synthesize knowledge in this field of research and identify research gaps and future directions.

4. DESCRIPTIVE ANALYSIS OF THE SELECTED ARTICLES

In this section, we present a brief descriptive analysis of the 118 papers chosen for the systematic review.

4.1. DISTRIBUTION OF ARTICLES OVER TIME

Regarding the distribution of articles over the years, as presented in figure 2, the number of articles between 2008 and 2014, remained relatively low, with minimal fluctuations. Starting from 2015, a significant upward trend is observed reaching a peak in 2018. This can be explained by the definition of the UN sustainable development goals, as well as, many calls for articles in this regard. After the peak, a decline occurred in 2019, but publication activity resumed a gradual increase by 2021. Finally, a rise is observed, with 2024 having the highest number of articles published. To conclude, the trend indicates an overall increase in publication frequency over time, with notable growth occurring from 2016 to date. This allows us to demonstrate the growing interest of both journals and authors in BMfS literature and its expansion as an increasingly significant issue.

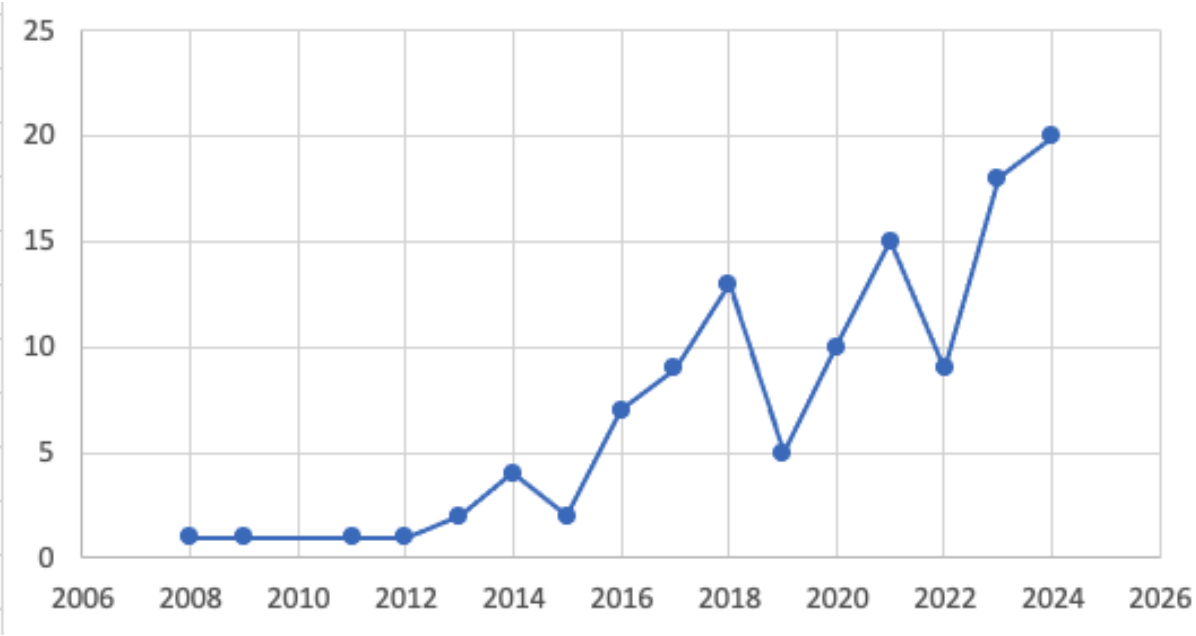

Figure 2. Evolution of the number of articles per year

4.2. DISTRIBUTION OF ARTICLES BY METHOD

Figure 3 provides an overview of the distribution of the selected articles based on the methods employed. In this sense, we note that 19% of the selected articles are literature reviews, including 10 articles that are systematic literature reviews, while 68% are empirical studies. More specifically and among the empirical articles, 75 articles adopt a qualitative method, 3 articles employ a quantitative approach and 2 articles adopt a mixed method. We note a consistent emphasis on qualitative research, mainly based on case studies. This highlights a strong concern to gain in-depth insights and understand how to develop and implement BMfS. This is particularly evident as more and more studies aim to explore the drivers and barriers associated with BMfS implementation.

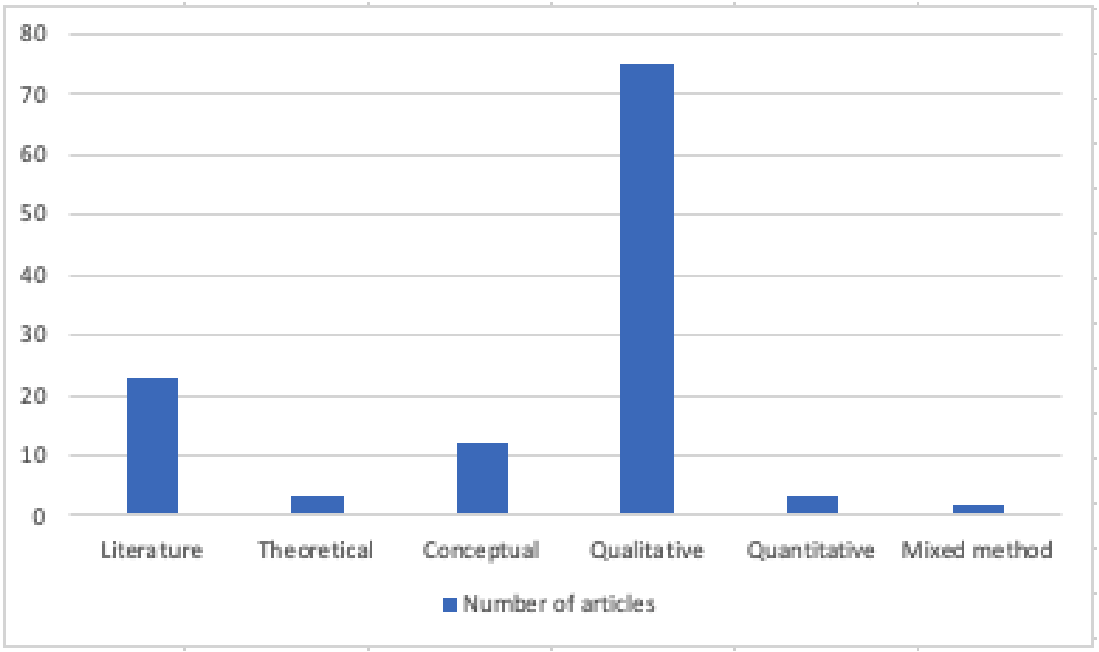

Figure 3. Distribution of articles by method

4.3. JOURNALS BY NUMBER OF PUBLICATIONS

The articles of our final sample were published across 32 different journals, but a significant concentration of publications is evident in a few of them. Indeed, 22 of these journals published only one article each, while the three journals with the highest number of publications, collectively accounted for 80 articles, representing 68% of our sample. Table 2 shows that the *Journal of Cleaner Production* has the most articles (33), followed by *Business Strategy and the Environment* (31), and *Organization & Environment* (16). This demonstrates that these journals have become prominent venues for discussions on BMfS, attracting major contributions from the scientific community in this field.

Table 2: Journals by number of publications

Journal	Number of articles	%
Journal of Cleaner Production	33	28%
Business Strategy and the Environment	31	26%
Organization & Environment	16	14%

4.4. MOST CITED ARTICLES

In this section, we aim to highlight the most cited articles in our sample, by outlining their significant impact based on ISI citation metrics (Table 3). Hence, the most cited article is by Bocken et al. (2014), published in the *Journal of Cleaner Production*, which stands out with 1978 citations, outlining its fundamental role in developing archetypes of BMfS. Following this, the article by Boons & Lüdeke-Freund (2013), also published in the *Journal of Cleaner Production* and cited 1296 times, provides a state-of-the- art review and research agenda on sustainable innovation from a business model perspective. Next, the article by Stubbs & Cocklin (2008), published in *Organization & Environment*, with 794 citations, conceptualizes a "*Sustainability Business Model"* and provides an initial theoretical foundation for the field. Given the above, we point out these journals' status as leaders in advancing BMfS related research. Moreover, we note that the fact that literature reviews and conceptual articles predominate among the most cited articles underlines their key role in consolidating knowledge, defining concepts and guiding research. This shows that the field is still evolving, with a need for clear research frameworks and agendas. It also highlights the importance of synthesizing existing research to enhance understanding of the literature.

Table 3: Most cited articles

Authors	Year	Title	Journal	ISI Citations
Bocken, N. M., Short, S. W., Rana, P., & Evans, S.	2014	A literature and practice review to develop sustainable business model archetypes	*Journal of Cleaner production*	1978
Boons, F., & Lüdeke-Freund, F.	2013	Business models for sustainable innovation: state-of-the-art and steps towards a research agenda	*Journal of Cleaner production*	1296
Stubbs, Wendy & Cocklin, Chris	2008	Conceptualizing a "Sustainability Business Model"	*Organization & Environment*	794

4.5. CO-OCCURRENCE ANALYSIS

To deepen our analysis, we used VOSviewer software and proposed the co-occurrence map of terms (in titles and abstracts), presented in figure 4. This tool helps identify key themes and topics while visualizing the interconnections between concepts. Through this analysis, we identified seven themes.

The first theme, represented in light blue, highlights concepts related to sustainable innovation, value proposition, creation, capture, etc. The second theme, represented in orange, explore terms such as transformation, startup, incumbent, etc. The third theme, illustrated in green, include terms related to sustainable business model innovation, its drivers, barriers, dynamic

capabilities. The fourth theme, represented in purple, addresses the terms success, investment, stakeholders, etc. The fifth theme, illustrated in red, comprises terms related to tension, business models for sustainability, value, value creation, etc. The sixth theme, marked in blue, contains circular economy aspects, circular business model, circular start-ups, resource, sustainability transition, etc. Finally, the seventh theme, represented in yellow, addresses the terms degrowth, activity, products, etc.

To sum up, this approach allowed the identification of prominent themes and interrelations within the field by reviewing the frequency and co-occurrence of key terms in titles and abstracts of the selected articles.

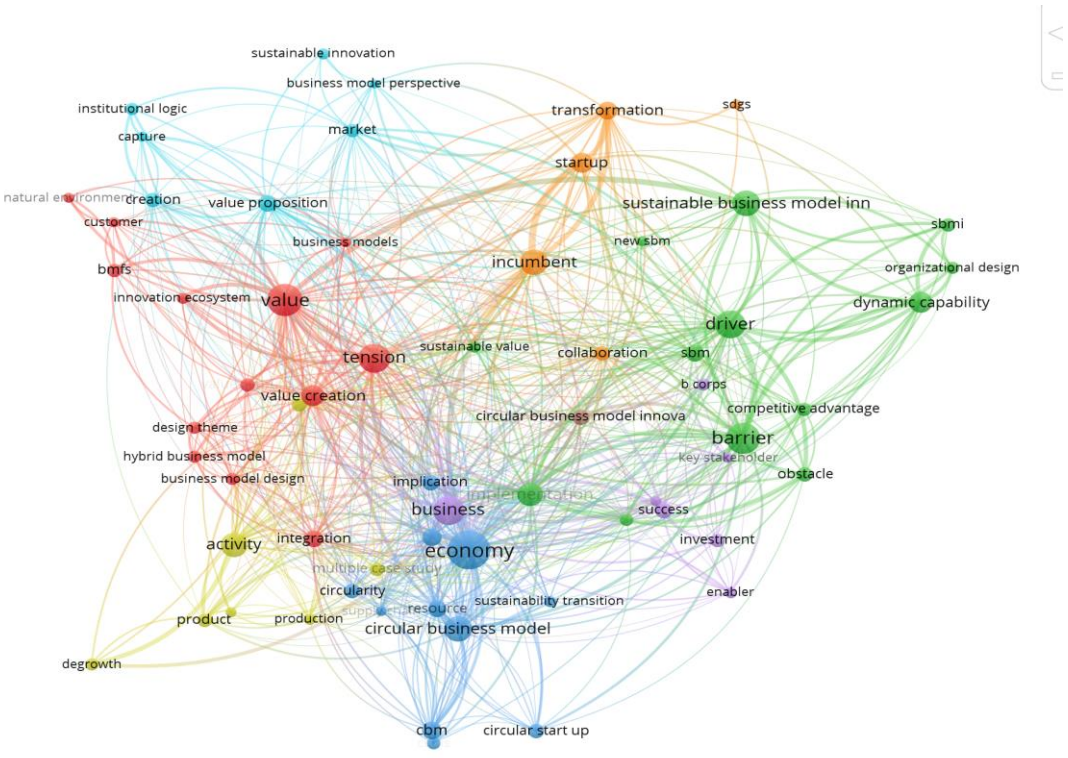

Figure 4: Co-occurrence Map of terms

Moreover, Figure 5 provides a structured view of both mature and emerging research areas. The overlay visualization shows the evolution of research themes from 2018 to 2023, with colors ranging from blue (earlier topics) to yellow (more recent trends). This method not only

underlines the diversity of topics but also uncovers insights that can guide future research directions. As can be interpreted from figure 5, there is a clear transition from more generic concepts related to business models to specific topics over time. In fact, between 2018–2019, research focused primarily on foundational elements of business models such as value creation, value proposition, value capture, etc. However, by 2021–2023, the focus shifted significantly toward sustainability, with emerging themes such as sustainability transitions, circularity, dynamic capabilities, and the exploration of drivers and barriers, exposing emerging areas of interest.

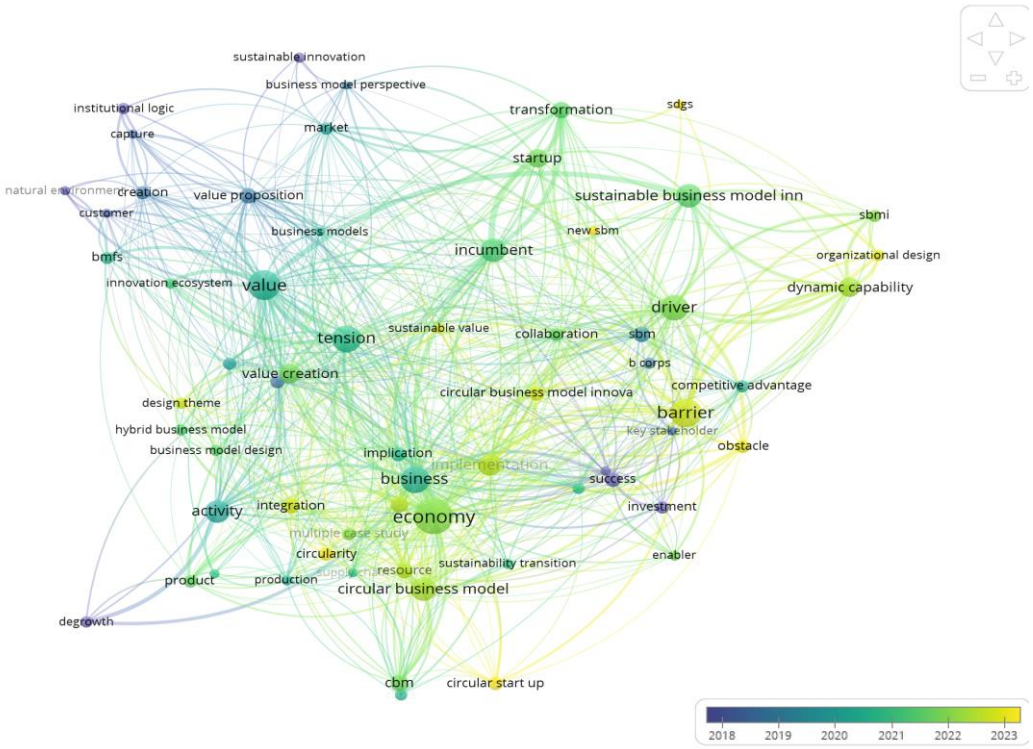

Figure 5: Overlay visualization of the co-occurrence map of terms

5. CONTENT ANALYSIS

In this section, we will delve into the themes previously identified in figure 4, to provide a comprehensive understanding of the existing literature and highlight prevailing trends in the

field. This analysis will further facilitate the identification of promising avenues for future research.

5.1. BUSINESS MODEL INNOVATION FOR SUSTAINABILITY (THEME1)

As the emphasis on sustainability continues to rise among diverse stakeholders, organizations are encouraged to rethink their societal responsibilities and seek sustainable solutions (Preghenella & Battistella, 2021). However, addressing sustainability demands fundamental changes in business models (Olesson et al., 2023), as these models represent a company's business strategy (Teece, 2010). It is a complex challenge that demands novel approaches and considerations extending beyond traditional business model innovation (BMI) practices (Ringvold et al., 2023; Ademi et al., 2025). BMI is about innovating mechanisms through which firms create, deliver and capture value (Baden-Fuller & Morgan, 2010; Teece, 2010). According to Ademi et al. (2025), companies need to assess their sustainability risks, adjust their BM components, and identify opportunities to improve sustainability practices. It is worth noting that the transition to BMfS is largely studied through the lens of innovation, fostering the emergence of business model innovation for sustainability (BMIfS) as an evolving area of research (Geissdoerfer et al., 2018; Stubbs, 2019).

According to Shakeel et al. (2020), studies aimed to enhance the understanding of BMIfS components through a detailed examination of its conceptual foundation, based on established fields such as business model (BM), business model innovation (BMI), and business model for sustainability (BMfS). In this regard, BMIfS has emerged as a valuable approach for embedding sustainability principles into business and hence developing BMfS (Geissdoerfer et al., 2018; Shakeel et al., 2020). BMIfS, like traditional BMI, emphasizes innovation across three elements: value proposition, value creation, and value capture (Shakeel et al., 2020). On the

contrary, it prioritizes the integration of sustainability as a core element of the business model, aiming to create value for a variety of stakeholders (Lüdeke-Freund, 2020). Accordingly, BMIfS is *"an overlapping conception of BMI and BMfS"* (Shakeel et al., 2020).

It is important to highlight that, organizations are required to adopt a different logic to succeed (Abdelkafi & Täuscher, 2016; Laasch, 2018), focusing on a broader conceptualization of value that incorporates not only the economic but also social and environmental dimension (Bocken et al., 2013). Furthermore, BMIfS shifts focus from only customers and shareholders to addressing the interests of multiple stakeholders, including societal stakeholders (Bocken et al., 2013). Thus, BMIfS integrates both business and sustainability value logics, each characterized by distinct attributes (Laasch, 2018).

Accordingly, BMIfS seek to create significant positive effects and/or minimizing negative impacts on the environment and society, through the development of changed and entirely new business models (Schaltegger et al., 2016). This is achieved by changing the way the organization and its value-network create, deliver and capture value or by redefining their value propositions (Bocken et al., 2014). In addition, Lecocq et al. (2023) highlight the importance of considering and managing externalities and internalities in BM design and implementation in order to achieve sustainability and deliver positive social, environmental and economic outcomes. Furthermore, Geissdoerfer et al. (2018) studied and identified four main approaches: the creation of a new sustainable startups; the transformation of an existing BM into an BMfS, which involves modifying the current business model to transition into a sustainable one; the diversification, where an additional business model for sustainability is introduced alongside the existing conventional model; and the acquisition, marked by the identification, acquisition, and integration of an external business model for sustainability into the organization.

5.2. EVOLUTION OF NON- NATIVE VS NATIVE SUSTAINABLE FIRMS (THEME 2)

Business models for sustainability have become a prominent feature of organizations in their quest towards sustainability (van Bommel et al., 2020). For businesses, the transition to sustainability means implementing entirely new and more sustainable value propositions and business models (Schaltegger et al., 2016). In fact, businesses today need to adjust to social and environmental issues as well as their shareholders' economic requirements (Geissdoerfer et al., 2018). In other words, they must consider not only every stakeholder but also society overall (Stubbs & Cocklin, 2008).

Whitin this regard, it is observed in the literature that the implementation of a business model for sustainability varies, depending on the company's initial position and approach toward sustainability.

On the one hand, native sustainable companies, created with a business model for sustainability, are usually known as "*natives"* (Rovanto & Bask, 2021), *"born-sustainable"* (Knoppen & Knight, 2022), *"pioneers"* (Schaltegger et al., 2016), *"born-green, green startups, sustainable start-ups, eco-enterprises, or green enterprises"* (Demirel et al., 2019; Todeschini et al., 2017). Knoppen & Knight (2022) consider *"born sustainable"* firms (BSFs) as firms established with explicit strategic intent to operate in a sustainable manner from the outset. They were created from the beginning to capitalize on social and environmental opportunities (Allal-Chérif et al., 2023). In essence, they address environmental and social needs before economic gains, seeking to create shared value (Porter & Kramer, 2011). By internalizing the costs of environmental and social harm of economic activities, they promise to be a solution to, rather than a cause of, environmental degradation or social injustice (Cohen & Winn, 2007). Moreover, native sustainable businesses are built on pillars of collaboration and innovation (Todeschini et al., 2017). They offer innovative products, processes, services and solutions derived from

sustainability, to address social and environmental problems (Ostermann et al. 2021). They are regarded as pioneers in the adoption of new technologies, demonstrating a greater tendency for disruptive and radical innovations (Klewitz & Hansen, 2014). A native sustainable company is characterized by : an alignment of principles and values with sustainability and social responsibility (Allal-Chérif et al., 2023); a strong focus on innovation (Todeschini et al., 2017); a pioneering spirit (Klewitz & Hansen, 2014) that supports the development of proactive sustainability strategies (Zufall et al., 2020); operation in an environment of uncertainties and risks (Mrkajic et al., 2019); entrepreneurs with in-depth knowledge of sustainability issues (Demirel et al., 2019; Schaltegger & Wagner, 2011) and difficulty in balancing environmental goals and profitability (Hall et al., 2010).

On the other hand, non-native sustainable companies, also referred to as, *"established companies", "incumbents",* or *"adopters"* (Rovanto & Bask, 2021), traditionally operate with conventional business models. However, they are increasingly shifting toward business models for sustainability. These organizations are becoming more conscious of critical issues such as climate change, waste and the carbon footprint reduction, responsible production and consumption, and a better distribution of created value (Calabrese et al., 2021). In order to integrate these sustainability concerns, companies must rethink their initial business models (Foss & Saebi, 2017). Studies have focused on how incumbents adapt their business models to address sustainability challenges, seize new opportunities, and remain competitive **(**Ademi et al., 2025**).** They explore the strategies incumbents adopt to transform, develop, or acquire business models for sustainability. For instance, Ciculli & Kolk (2019) examined the transformation of incumbents' business models, highlighting their gradual entry into the sharing economy. The authors note that this transition involves different changes to existing business models, notably adjustments of value propositions, customer interfaces, and business

infrastructures, as well as the integration of new sharing business models. Lüdeke-Freund et al. (2024) proposed a framework for incorporating new BMfS into an existing business portfolio. The authors emphasize the significance of transforming current BMs, developing new ones, and acquiring new BMfS in order to tackle sustainability challenges. Ademi et al. (2025) point out that these three approaches are slightly different from the four BMIfS types outlined by Geissdoerfer et al. (2018). Specifically, for incumbents, the creation of new sustainable startups and the establishment of BMfS alongside existing BM are viewed as similar approaches for developing new BMs. Furthermore, Ademi et al. (2025) note that, incumbents expand their business portfolios acquiring native sustainable start-ups that align with their core operations and enhance their existing resources. These startups bring valuable expertise addressing sustainability challenges, which that may not be part of the incumbents' traditional areas of knowledge. While this collaboration benefits customers, suppliers, and the environment, it also presents a threat for incumbents, as these startups can disrupt the market as they grow. Therefore, incumbents need to leverage their sensing capabilities in order to identify promising sustainable startups (Ademi et al., 2025).

5.3. DRIVERS AND BARRIERS IN IMPLEMENTING BUSINESS MODELS FOR SUSTAINABILITY (THEME 3)

Previous studies have examined factors affecting BMfS implementation notably drivers and barriers. Concerning the drivers, Lüdeke-Freund et al. (2024) identified three primary motivations for businesses to integrate sustainability into their business models: the necessity to align with sustainability standards, to address threats related to sustainability challenges, and to take advantage of sustainability opportunities. In addition, Broccardo et al. (2023) underlined the internal and external drivers to the implementation of BMfS. They proposed a contingency-based framework to understand the factors that influence BMfS implementation and their

effects on value creation and capture. Despite growing interest in sustainability, which motivates companies to review their BMs, companies face obstacles in effectively implementing BMfS (Broccardo et al., 2023).

In this regard, Geissdoerfer et al. (2018), expose a three-fold problem in BMIfS. First, numerous business model innovation meetings and workshops are organized, yet the ideas are often not pursued further. Second, even well-developed sustainable business model concepts frequently fail to reach the implementation stage. Finally, the majority of implemented business models, particularly those in start-ups, fail in the market. These problems arise from a range of challenges, such us challenges related to resources, the mindset, the co-creation of profits, social and environmental benefits (Evans et al. 2017; Geissdoerfer et al., 2018).

Considering circular business models as a subset of business models for sustainability, Geissdoerfer et al. (2023) investigate the drivers, as well as, the barriers of circular business model innovation (CBMI). They explore the way these factors differ across various types of CBMI: start-ups, diversification, transformation, and acquisition (Geissdoerfer et al., 2023). The authors identified 10 distinctive drivers and 25 barriers to CBMI, categorized into different groups: financial, legal, market, technical, value chain and organizational. For instance, they highlight that market and financial factors primarily drive start-ups and diversifications, whereas transformations are predominantly influenced by market and organizational factors (Geissdoerfer et al., 2023).

To provide a comprehensive understanding of the barriers, we will further explore these aspects, with particular attention to the distinctions between native and non-native sustainable firms. Regarding native sustainable firms, creating a company with a business model for sustainability from the inception presents considerable barriers. Such firms prioritize innovation, developing unique business models that bundle new products and target non-traditional customers.

However, Bohnsack et al. (2014) argue that they often face resource constraints, limiting them to pursuing one model at a time. Their financial instability makes them highly vulnerable to disruption (Bohnsack et al., 2014). In terms of investors attractiveness, De Lange (2017) highlight that investors are often relucent to engage with native sustainable firms, in spite of their potential for value capture. This tendency reflects the dominating focus on financial returns to the detriment of social and environmental considerations.

As for non-native sustainable firms, the barriers encountered vary based on the approach of BMIfS. Eklund & Kapoor (2019) argue that, in the context of diversification, the primary obstacle faced by incumbents results from the simultaneous management of both existing and emerging business models. Moreover, several scholars emphasized that the move to a new BMfS represents, as well, a significant barrier for firms undergoing a business model transformation (Evans et al., 2017; Bocken & Geradts, 2020). According to Pinkse et al. (2023), the transformation and innovation of business models are highly influenced by dominant logics (Chesbrough & Rosenbloom, 2002). Changing BMfS entails fundamental organizational transformation, requiring firms to redefine the notion of value by shifting their focus toward socially and environmentally sustainable outcomes. This transformation involves altering the resources that support value creation and fostering interactions with a more diverse set of stakeholders (Freudenreich et al., 2020; Neesham et al., 2023; Upward & Jones, 2016).

To sum up, Pinkse et al. (2023) note that adopting a BMfS calls to reconfiguring resources, transactions, and redefining value propositions. In order to support these transformations, firms need to develop or acquire strong dynamic capabilities, enabling them to sense emerging customer needs and seize new opportunities (Ademi et al., 2025). Given that BMI is a continuous process, firms that regularly innovate and enhance their BMs to address changing

market dynamics and customer expectations are more likely to sustain long-term success (Bachmann & Jodlbauer, 2023).

5.4. SUCCESS FACTORS OF BUSINESS MODEL FOR SUSTAINABILITY (THEME 4)

Business models for sustainability face recurring challenges that represent critical barriers to the success of such models. Resolving these challenges is crucial in enabling a fundamental shift toward innovation and sustainability (Todeschini et al., 2017). In this regard, several studies have sought to unveil the enabling and success factors of BMIfS (Long et al. 2018; Troise et al. 2024; Lüdeke-Freund et al., 2024).

Long et al. (2018) explored success factors for transitioning to BMfS adoption by Small and Medium Enterprises (SMEs), such as collaboration, a well-defined vision, continuous innovation, a sustainable foundation, profitability, and unforeseen external opportunities. Along the same line, Troise et al. (2024) identified internal and external enabling factors. Regarding internal factors, the authors highlight that SMEs most likely to adopt BMfS are those that demonstrate, openness to learning, embrace cultural and mindset shifts focused on sustainability, prioritize capabilities and resource efficiency, etc. As for external factors, they include rapid market transformations and technological advancements driving SMEs to adopt sustainable practices, as well as, digitalization that facilitates sustainable transitions by minimizing costs and enhancing efficiency. Furthermore, policies and stakeholder influence play a vital role in promoting BMfS adoption (Freudenreich et al., 2020; Troise et al., 2024). Likewise, Christodoulou et al. (2024) point to resilience, adaptability, and convenience as fundamental success factors within sustainable startups. Moreover, Ringvold et al. (2023) highlight three key factors to successfully integrating BMfS into an established firm. These include prioritizing activities aimed at identifying sustainability-oriented problems, establishing processes and structures that support BMIfS, and maintaining a balance between commercial

interests and long-term value creation. Similarly, Lüdeke-Freund et al. (2024) emphasize the role of dynamic capabilities, like sensing capabilities, in promoting BMIfS.

5.5. TENSIONS IN IMPLEMENTING BUSINESS MODELS FOR SUSTAINABILITY (THEME 5)

Implementing business model for sustainability is difficult (Boons & Lüdeke-Freund, 2013; Schaltegger et al., 2016; Stubbs & Cocklin, 2008), primarily due to the numerous tensions that arise as firms attempt to balance often conflicting economic, environmental and socials aspects (van Bommel, 2018). Their identification and management are crucial for the success of BMfS and the improvement of sustainability outcomes (van Bommel, 2018). Several authors have mobilized the paradox theory (Smith & Lewis, 2011) to understand these tensions, as well as the strategies adopted to manage them (van Bommel, 2018; Stubbs, 2019). Paradoxical tensions are defined as "*contradictory yet interrelated elements embedded in organizing processes that persist because of organizational complexity and adaptation*" (Smith & Lewis, 2011). Four types of tensions (organizing, performing, belonging/identity, and learning/temporal) were identified (Smith & Lewis, 2011).

The success of BMIfS relies on the company's ability to address and manage tensions (van Bommel, 2018). Rather than being fully resolved, these tensions persist and necessitate continuous process to work on them (Smith and Lewis, 2011). Thus, organizations must not only recognize these tensions but also adopt tension management strategies to achieve their objectives (Joseph et al., 2020). Few authors have sought to explore these strategies. For instance, Siegner et al. (2018) distinguished between two types of strategies: reconciling strategies involving structural or temporal separation and acceptances strategies. Similarly, van Bommel (2018) identified two approaches; instrumental (alignment, avoidance) and integrative (opposition, separation synthesis) approaches. Thus, firms adopting an integrative approach are

better equipped to manage tensions to those that rely on an instrumental or 'business case' approach (van Bommel, 2018). In fact, according to the author, companies that opt for an integrative approach not only utilize a combination of opposition, separation and synthesis strategies, but often integrating these with instrumental strategies simultaneously. Conversely, companies that operate primarily with instrumental strategies also incorporate integrative strategies, but to a very minimal degree (van Bommel, 2018).

Consequently, it emerges that, instead of adhering to a single *"best way"* or a *"contingency"* approach, organizations should adopt a flexible and pragmatic strategy by employing multiple strategies (van Bommel, 2018). Given the inherent complexity and dynamic of sustainability, it is reasonable to presume that, employing a diverse and heterogeneous mix of strategies to manage tensions, sometimes conflicting, is needed by BMfS to address tensions (Stubbs, 2019; van Bommel, 2018).

5.6. CIRCULARITY (THEME 6)

The notion of a circular economy (CE) as a possible framework for economic transition has attracted growing interest from business leaders, policymakers, and scholars (Korhonen et al., 2018; Murray et al., 2017). The CE is defined by its focus on closing and decelerating resource flows, distinguishing it from linear approaches and practices (Bocken et al., 2016). The principle of reducing resource consumption, waste production, emissions, and energy loss (Geissdoerfer et al., 2017) has drawn the interest of exploring BMfS (Pizzi et al., 2021). Accordingly, academic interest in circular business models has grown considerably (Fehrer & Wieland, 2021). Circular business models (CBMs) are recognized as a specific subset of BMfS (Bocken et al., 2014; Guldmann & Huulgaard, 2020), concentrating on recycling and preventing resource waste (Fehrer & Wieland, 2021). This involves structuring the core components of a

business model to achieve goals such as slowing, closing, narrowing, intensifying and/or dematerializing resource cycles (Bocken et al., 2016; Geissdoerfer et al., 2018).

Taking into account that CBMs adoption and implementation are still low (Vermunt et al., 2019; Werning & Spinler, 2020), authors have sought to understand how firms can navigate circular business model transitions (Hofmann & Jaeger-Erben, 2020). According to Hofmann & Jaeger-Erben (2020), companies using linear BMs can shift to circular business models (CBMs) by either incremental adjustments or radical innovations developing new approaches to value creation. The authors underline the crucial role of interdisciplinary collaboration, ambidexterity, and performativity in moving from linear to circular business model.

Moreover, Henry et al. (2020) investigate BM of circular start-ups, contrasting them with those incumbent companies integrating circular economy principles. The authors propose a typology of circular start-ups and highlight their role in advancing the transition toward a circular economy. Unlike existing firms, circular start-ups are defined as "*new, independent and active companies pursuing a CBM*", designed with circular elements at their core from the start (Lit et al., 2024). Circular startups often opt for strategies that correspond to higher levels of circularity compared to those employed by incumbents (Henry et al., 2020).

5.7. DEGROWTH, VALUE CREATION AND VALUE CAPTURE (THEME 7)

Degrowth represents a paradigmatic shift that challenges conventional economic frameworks (Demaria et al., 2013). It seems incompatible with the business logic, which is primarily focused on profit maximization and continuous growth. Nevertheless, degrowth offers a new perspective on BMfS by emphasizing on collaborative value creation, democratic governance and the reduction of environmental impacts (Khmara & Kronenberg, 2018). In this regard, the

authors stipulate that multiple business models for sustainability, closely related to degrowth, are relatively well established, prioritizing social and environmental objectives, such as benefit corporations, social enterprises, sufficiency-driven businesses (Bocken & Short, 2016). According to Bocken & Short (2016), in order to foster sufficiency, firms can implement various mechanisms including innovative product design, conscious sales and marketing approaches and alternative revenue models. Although the rationale for adopting such models may not always be linked to sustainability, but rather to preserving certain organizational structures, avoiding cost or risks, they however represent examples of a potential transition toward a society oriented around the principles of degrowth (Khmara & Kronenberg, 2018).

6. DISCUSSION AND AVENUES FOR FUTURE RESEARCH

In this article, we conducted a systematic literature review to examine existing literature on business models for sustainability (BMfS). After analyzing the articles selected, in this section, we discuss numerous research gaps and propose promising directions for future studies.

First, the evolution of the literature reveals an initial emphasis on the structural elements of BMfS, such as components, attributes, and dimensions (Preghenella & Battistella, 2021). Over time, the focus shifted toward the BMfS transformation process, including requirements, drivers and barriers. Despite, this growing interest, our understanding of the evolution process of BMfS remains limited (Guo et al., 2022), highlighting the need for further empirical studies on this subject (Stubbs, 2019; van Bommel, 2018). For instance, there is a lack of exploration about the fundamental dynamics in adopting business models for sustainability (Evans et al., 2017) or the process by which a new venture incorporates sustainability into its BM elements (Roshan & Chandra Balodi, 2024). In addition, little is known regarding technical aspects of

BMIfS. Preghenella & Battistella (2021) note the need to explore whether and how technologies could serve as a driver for BMfS implementation.

Second, while numerous studies explore BMfS, the majority focus on how established, non-native, firms transition to sustainability. In contrast, research on native-sustainable firms remains scarce (Demirel et al., 2019). Furthermore, the distinction between native and non-native sustainable firms is not well defined. In fact, the literature mainly adopts the perspective of "*big vs small dichotomy*". As noted by Schaltegger et al. (2016), there is an assumption that small entrepreneurial firms are the primary innovators in sustainability-enhancing solutions, whereas larger, traditional firms are typically seen as slow adaptors of sustainability practices. This perspective is reinforced by many theoretical frameworks (Wadin et al., 2017). Various studies analyze transitions in business model for sustainability, in terms of size, contrasting small innovators vs. large corporations (Hockerts & Wüstenhagen, 2010) or in terms of market, pioneers in niche markets vs. mass-market players (Geels & Schot, 2007). Schaltegger et al. (2016) highlight the need for a perspective that transcends the prevailing *"small vs large"* dichotomy, as both small and large organizations can contribute to niche and mass-market development, without assigning either role to one type or the other. For our part, we believe that moving beyond size based or market-based distinctions is essential for a more nuanced and effective evaluation of firms' evolutions to sustainability. We propose the distinction based on the company's initial position and approach toward sustainability; whether the firm is created with a business model for sustainability from its inception or implements sustainability principles later ("*native sustainable firms vs non-native sustainable firms").*

In addition, limited exploration of how firms navigate barriers to transitioning toward business models for sustainability (Geissdoerfer et al., 2018). According to Todeschini et al. (2017),

further research is needed to understand the strategies that both startups and incumbents can employ to overcome these barriers and capitalize on opportunities.

Besides, acknowledging and addressing tensions is essential for a successful implementation of BMfS (van Bommel, 2018) and for gaining a deeper understanding of how BMfS are concretely implemented. However, research on tensions within BMfS literature is still in its early stages (Stubbs, 2019). Carmine and De Marchi (2023) emphasize the importance of exploring the actions taken to manage these tensions in the pursuit of sustainability. Consequently, we note that comparative studies are crucial to explore the tensions encountered by native and non-native sustainable firms in the implementation of BMfS, as well as, and the strategies adopted to manage them. Also, studies with a longitudinal focus may offer deeper insights into the dynamic of these strategies.

Moreover, concerning circular business models, considered a subset of business models for sustainability, empirical studies have predominantly examined firms undergoing an incremental transition from traditional business models to CBMs (Rovanto & Bask, 2020). Only few studies have focused on organizations founded on the sustainable principles of a circular economy, particularly circular start-ups, and the strategies they employ (Henry et al., 2020). Therefore, additional empirical and conceptual research is needed to explore the interactions between sustainability startups and incumbents, their BM evolution, and their collective contribution to a market sustainability transition (Rovanto & Bask, 2020).

Finally, future research should aim to advance the concept of sufficiency as a catalyst of BMIfS. Studies should explore how sufficiency-based business models can be scaled up and adapted across various industries (Bocken & Short, 2016).

To conclude, this systematic literature review contributes to the literature on BMfS by providing a comprehensive overview of the current state-of-the-art, as well as insightful avenues for future research.

REFERENCES

Abdelkafi, N., & Täuscher, K. (2016). Business models for sustainability from a system dynamics perspective. *Organization & Environment*, *29*(1), 74-96.

Adams, R., Bessant, J., Jeanrenaud, S., Overy, P., & Denyer, D. (2012). Innovating for sustainability: a systematic review of the body of knowledge.

Ademi, B., Sætre, A. S., & Klungseth, N. J. (2025). What do established companies do to factor in sustainability into their business models?. *Business Strategy and the Environment*.

Allal-Chérif, O., Climent, J. C., & Berenguer, K. J. U. (2023). Born to be sustainable: How to combine strategic disruption, open innovation, and process digitization to create a sustainable business. *Journal of Business Research*, *154*, 113379.

Bachmann, N., & Jodlbauer, H. (2023). Iterative business model innovation: A conceptual process model and tools for incumbents. *Journal of Business Research*, *168*, 114177.

Boons, F., & Lüdeke-Freund, F. (2013). Business models for sustainable innovation: state-of-the-art and steps towards a research agenda. *Journal of Cleaner production*, *45*, 9-19.

Bocken, N. M., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of cleaner production*, *65*, 42-56.

Bocken, N. M., & Short, S. W. (2016). Towards a sufficiency-driven business model: Experiences and opportunities. *Environmental innovation and societal transitions*, *18*, 41-61.

Bocken, N. M., & Geradts, T. H. (2020). Barriers and drivers to sustainable business model innovation: Organization design and dynamic capabilities. *Long range planning*, *53*(4), 101950.

Bocken, N., Short, S., Rana, P., & Evans, S. (2013). A value mapping tool for sustainable business modelling. *Corporate governance*, *13*(5), 482-497.

Baden-Fuller, C., & Morgan, M. S. (2010). Business models as models. *Long range planning*, *43*(2-3), 156-171.

Bohnsack, R., Pinkse, J., & Kolk, A. (2014). Business models for sustainable technologies: Exploring business model evolution in the case of electric vehicles. *Research policy*, *43*(2), 284-300.

Broccardo, L., Vola, P., Zicari, A., & Alshibani, S. M. (2023). Contingency-based analysis of the drivers and obstacles to a successful sustainable business model: Seeking the uncaptured value. *Technological Forecasting and Social Change*, *191*, 122513.

Calabrese, A., Costa, R., Gastaldi, M., Ghiron, N. L., & Montalvan, R. A. V. (2021). Implications for Sustainable Development Goals: A framework to assess company disclosure in sustainability reporting. *Journal of Cleaner Production*, *319*, 128624.

Carmine, S., & De Marchi, V. (2023). Reviewing paradox theory in corporate sustainability toward a systems perspective. *Journal of Business Ethics*, *184*(1), 139-158.

Chesbrough, H., & Rosenbloom, R. S. (2002). The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin-off companies. *Industrial and corporate change*, *11*(3), 529-555.

Ciulli, F., & Kolk, A. (2019). Incumbents and business model innovation for the sharing economy: Implications for sustainability. *Journal of cleaner production*, *214*, 995-1010.

Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of business venturing*, *22*(1), 29-49.

Christodoulou, I. P., Rizomyliotis, I., Konstantoulaki, K., Alfiero, S., Hasanago, S., & Paolone, F. (2024). Investigating the key success factors within business models that facilitate long-term value creation for sustainability-focused start-ups. *Business Ethics, the Environment & Responsibility*.

De Lange, D. E. (2017). Start-up sustainability: An insurmountable cost or a life-giving investment?. *Journal of cleaner production*, *156*, 838-854.

Demaria, F., Schneider, F., Sekulova, F., & Martinez-Alier, J. (2013). What is degrowth? From an activist slogan to a social movement. *Environmental values*, *22*(2), 191-215.

Demirel, P., Li, Q. C., Rentocchini, F., & Tamvada, J. P. (2019). Born to be green: new insights into the economics and management of green entrepreneurship. *Small Business Economics*, *52*, 759-771.

Eklund, J., & Kapoor, R. (2019). Pursuing the new while sustaining the current: Incumbent strategies and firm value during the nascent period of industry change. *Organization Science*, *30*(2), 383-404.

Evans, S., Vladimirova, D., Holgado, M., Van Fossen, K., Yang, M., Silva, E. A., & Barlow, C. Y. (2017). Business model innovation for sustainability: Towards a unified perspective for creation of sustainable business models. *Business strategy and the environment*, *26*(5), 597-608.

Fehrer, J. A., & Wieland, H. (2021). A systemic logic for circular business models. *Journal of Business Research*, *125*, 609-620.

Fink, A. (2019). *Conducting research literature reviews: From the internet to paper*. Sage publications.

Foss, N. J., & Saebi, T. (2017). Fifteen years of research on business model innovation: How far have we come, and where should we go?. *Journal of management*, *43*(1), 200-227.

Freudenreich, B., Lüdeke-Freund, F., & Schaltegger, S. (2020). A stakeholder theory perspective on business models: Value creation for sustainability. *Journal of business ethics*, *166*(1), 3-18.

Geissdoerfer, M., Savaget, P., Bocken, N. M., & Hultink, E. J. (2017). The Circular Economy–A new sustainability paradigm?. *Journal of cleaner production*, *143*, 757-768.

Geissdoerfer, M., Vladimirova, D., & Evans, S. (2018). Sustainable business model innovation: A review. *Journal of cleaner production*, *198*, 401-416.

Geissdoerfer, M., Santa-Maria, T., Kirchherr, J., & Pelzeter, C. (2023). Drivers and barriers for circular business model innovation. *Business Strategy and the Environment*, *32*(6), 3814-3832.

Geels, F. W., & Schot, J. (2007). Typology of sociotechnical transition pathways. *Research policy*, *36*(3), 399-417.

Guldmann, E., & Huulgaard, R. D. (2020). Barriers to circular business model innovation: A multiple-case study. *Journal of cleaner production*, *243*, 118160.

Guo, L., Cao, Y., Qu, Y., & Tseng, M. L. (2022). Developing sustainable business model innovation through stakeholder management and dynamic capability: a longitudinal case study. *Journal of Cleaner Production*, *372*, 133626.

Hall, J. K., Daneke, G. A., & Lenox, M. J. (2010). Sustainable development and entrepreneurship: Past contributions and future directions. *Journal of business venturing*, *25*(5), 439-448.

Hart, S. L., & Milstein, M. B. (2003). Creating sustainable value. *Academy of Management Perspectives*, *17*(2), 56-67.

Henry, M., Bauwens, T., Hekkert, M., & Kirchherr, J. (2020). A typology of circular start-ups: An Analysis of 128 circular business models. *Journal of cleaner production*, *245*, 118528.

Hofmann, F., & Jaeger-Erben, M. (2020). Organizational transition management of circular business model innovations. *Business strategy and the environment*, *29*(6), 2770-2788.

Hockerts, K., & Wüstenhagen, R. (2010). Greening Goliaths versus emerging Davids—Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of business venturing*, *25*(5), 481-492.

Joseph, J., Borland, H., Orlitzky, M., & Lindgreen, A. (2020). Seeing versus doing: How businesses manage tensions in pursuit of sustainability. *Journal of Business Ethics*, *164*(2), 349-370.

Jones, M. L. (2004). Application of systematic review methods to qualitative research: practical issues. *Journal of advanced nursing*, *48*(3), 271-278.

Jolink, A., & Niesten, E. (2015). Sustainable development and business models of entrepreneurs in the organic food industry. *Business Strategy and the Environment*, *24*(6), 386-401.

Khmara, Y., & Kronenberg, J. (2018). Degrowth in business: An oxymoron or a viable business model for sustainability?. *Journal of Cleaner Production*, *177*, 721-731.

Klewitz, J., & Hansen, E. G. (2014). Sustainability-oriented innovation of SMEs: a systematic review. *Journal of cleaner production*, *65*, 57-75.

Knoppen, D., & Knight, L. (2022). Pursuing sustainability advantage: The dynamic capabilities of born sustainable firms. *Business strategy and the environment*, *31*(4), 1789-1813.

Korhonen, J., Nuur, C., Feldmann, A., & Birkie, S. E. (2018). Circular economy as an essentially contested concept. *Journal of cleaner production*, *175*, 544-552.

Kramer, M. R., & Porter, M. (2011). *Creating shared value* (Vol. 17). Boston, MA, USA: FSG.

Laasch, O. (2018). Beyond the purely commercial business model: Organizational value logics and the heterogeneity of sustainability business models. *Long range planning*, *51*(1), 158-183.

Lecocq, X., Demil, B., & Warnier, V. (2023). Moving business models forward for positive social, environmental and economic outcomes: Managing externalities (and internalities) for sustainability innovation. *Journal of Business Models*, *11*(3), 117-132.

Lit, F. C., Huijben, J. C., Cloodt, M. M., & Paredis, E. (2024). Business model innovation in circular start-ups: Overcoming barriers in the circular plastics economy. *International Small Business Journal*, *42*(4), 506-550.

Light, R. J., & Pillemer, D. B. (1984). *Summing up: The science of reviewing research*. Harvard University Press.

Long, T. B., Looijen, A., & Blok, V. (2018). Critical success factors for the transition to business models for sustainability in the food and beverage industry in the Netherlands. *Journal of cleaner production*, *175*, 82-95.

Lüdeke-Freund, F., & Dembek, K. (2017). Sustainable business model research and practice: Emerging field or passing fancy?. *Journal of Cleaner Production*, *168*, 1668-1678.

Lüdeke-Freund, F., Carroux, S., Joyce, A., Massa, L., & Breuer, H. (2018). The sustainable business model pattern taxonomy—45 patterns to support sustainability-oriented business model innovation. *Sustainable Production and Consumption*, *15*, 145-162.

Lüdeke-Freund, F. (2020). Sustainable entrepreneurship, innovation, and business models: Integrative framework and propositions for future research. *Business Strategy and the Environment*, *29*(2), 665-681.

Lüdeke-Freund, F., Froese, T., Dembek, K., Rosati, F., & Massa, L. (2024). What Makes a Business Model Sustainable? Activities, Design Themes, and Value Functions. *Organization & Environment*, 10860266241235212.

Mignon, I., & Bankel, A. (2023). Sustainable business models and innovation strategies to realize them: A review of 87 empirical cases. *Business Strategy and the Environment*, *32*(4), 1357-1372.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & PRISMA Group*, T. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of internal medicine*, *151*(4), 264-269.

Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., ... & Prisma-P Group. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic reviews*, *4*, 1-9.

Mrkajic, B., Murtinu, S., & Scalera, V. G. (2019). Is green the new gold? Venture capital and green entrepreneurship. *Small business economics*, *52*, 929-950.

Murray, A., Skene, K., & Haynes, K. (2017). The circular economy: an interdisciplinary exploration of the concept and application in a global context. *Journal of business ethics*, *140*, 369-380.

Neesham, C., Dembek, K., & Benkert, J. (2023). Defining value in sustainable business models. *Business & Society*, *62*(7), 1378-1419.

Olesson, E., Nenonen, S., & Newth, J. (2023). Enablers and barriers: The conflicting role of institutional logics in business model change for sustainability. *Organization & Environment*, *36*(2), 228-252.

Ostermann, C. M., Nascimento, L. D. S., Steinbruch, F. K., & Callegaro-de-Menezes, D. (2021). Drivers to implement the circular economy in born-sustainable business models: a case study in the fashion industry. *Revista de Gestão*, *28*(3), 223-240.

Pinkse, J., Lüdeke-Freund, F., Laasch, O., Snihur, Y., & Bohnsack, R. (2023). The organizational dynamics of business models for sustainability: Discursive and cognitive pathways for change. *Organization & Environment*, *36*(2), 211-227.

Pizzi, S., Corbo, L., & Caputo, A. (2021). Fintech and SMEs sustainable business models: Reflections and considerations for a circular economy. *Journal of Cleaner Production*, *281*, 125217.

Preghenella, N., & Battistella, C. (2021). Exploring business models for sustainability: A bibliographic investigation of the literature and future research directions. *Business Strategy and the Environment*, *30*(5), 2505-2522.

Rennie, M. W. (1993). Born global. *The McKinsey Quarterly*, (4), 45-53.

Ringvold, K., Saebi, T., & Foss, N. (2023). Developing sustainable business models: A microfoundational perspective. *Organization & Environment*, *36*(2), 315-348.

Rovanto, I. K., & Bask, A. (2021). Systemic circular business model application at the company, supply chain and society levels—A view into circular economy native and adopter companies. *Business Strategy and the Environment*, *30*(2), 1153-1173.

Roome, N., & Louche, C. (2016). Journeying toward business models for sustainability: A conceptual model found inside the black box of organisational transformation. *Organization & Environment*, *29*(1), 11-35.

Roshan, R., & Balodi, K. C. (2024). Sustainable business model innovation of an emerging country startup: An imprinting theory perspective. *Journal of Cleaner Production*, *475*, 143687.

Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. (2016). Business models for sustainability: A co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation. *Organization & environment*, *29*(3), 264-289.

Schaltegger, S., Hansen, E. G., & Lüdeke-Freund, F. (2016). Business models for sustainability: Origins, present research, and future avenues. *Organization & environment*, *29*(1), 3-10.

Schaltegger, S., & Wagner, M. (2011). Sustainable entrepreneurship and sustainability innovation: categories and interactions. *Business strategy and the environment*, *20*(4), 222-237.

Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. (2012). Business cases for sustainability: the role of business model innovation for corporate sustainability. *International journal of innovation and sustainable development*, *6*(2), 95-119.

Shakeel, J., Mardani, A., Chofreh, A. G., Goni, F. A., & Klemeš, J. J. (2020). Anatomy of sustainable business model innovation. *Journal of cleaner production*, *261*, 121201.

Siegner, M., Pinkse, J., & Panwar, R. (2018). Managing tensions in a social enterprise: The complex balancing act to deliver a multi-faceted but coherent social mission. *Journal of cleaner production*, *174*, 1314-1324.

Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of management Review*, *36*(2), 381-403.

Stubbs, W., & Cocklin, C. (2008). Conceptualizing a "sustainability business model". *Organization & environment*, *21*(2), 103-127.

Stubbs, W. (2019). Strategies, practices, and tensions in managing business model innovation for sustainability: The case of an Australian BCorp. *Corporate Social Responsibility and Environmental Management*, *26*(5), 1063-1072.

Teece, D. J. (2010). Business models, business strategy and innovation. *Long range planning*, *43*(2-3), 172-194.

Thorpe, R., Holt, R., Macpherson, A., & Pittaway, L. (2005). Using knowledge within small and medium-sized firms: A systematic review of the evidence. *International Journal of Management Reviews*, *7*(4), 257-281.

Todeschini, B. V., Cortimiglia, M. N., Callegaro-de-Menezes, D., & Ghezzi, A. (2017). Innovative and sustainable business models in the fashion industry: Entrepreneurial drivers, opportunities, and challenges. *Business horizons*, *60*(6), 759-770.

Troise, C., Santoro, G., Jones, P., & Bresciani, S. (2024). Small and medium enterprises and sustainable business models: Exploring enabling factors for adoption. *Journal of Management & Organization*, *30*(3), 452-465.

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British journal of management*, *14*(3), 207-222.

Upward, A., & Jones, P. (2016). An ontology for strongly sustainable business models: Defining an enterprise framework compatible with natural and social science. *Organization & Environment*, *29*(1), 97-123.

van Bommel, K. (2018). Managing tensions in sustainable business models: Exploring instrumental and integrative strategies. *Journal of Cleaner Production*, *196*, 829-841.

van Bommel, K., Henkemans, M. B., Brinkhorst, T., & Meurs, M. (2020). A review of sustainable business models: Past accomplishments and future promises. *Journal of Sustainability Research*, *2*(3.

Vermunt, D. A., Negro, S. O., Verweij, P. A., Kuppens, D. V., & Hekkert, M. P. (2019). Exploring barriers to implementing different circular business models. *Journal of cleaner production*, *222*, 891-902.

Wadin, J. L., Ahlgren, K., & Bengtsson, L. (2017). Joint business model innovation for sustainable transformation of industries–A large multinational utility in alliance with a small solar energy company. *Journal of Cleaner Production*, *160*, 139-150.

Werning, J. P., & Spinler, S. (2020). Transition to circular economy on firm level: Barrier identification and prioritization along the value chain. *Journal of Cleaner Production*, *245*, 118609.

Yip, A. W., & Bocken, N. M. (2018). Sustainable business model archetypes for the banking industry. *Journal of cleaner production*, *174*, 150-169.

Zufall, J., Norris, S., Schaltegger, S., Revellio, F., & Hansen, E. G. (2020). Business model patterns of sustainability pioneers-Analyzing cases across the smartphone life cycle. *Journal of Cleaner Production*, *244*, 118651.