

SPECIAL ISSUE

Investigating the key success factors within business models that facilitate long-term value creation for sustainability-focused start-ups

Ioannis P. Christodoulou¹ | Ioannis Rizomyliotis²  | Kleopatra Konstantoulaki³ |
Simona Alfiero⁴ | Sema Hasanago¹ | Francesco Paolone^{5,6} 

¹Westminster Business School, University of Westminster, London, UK

²Department of Business Administration, University of West Attica, Athens, Greece

³Department of Early Childhood Education and Care, University of West Attica, Athens, Greece

⁴Department of Management, University of Turin, Torino, Italy

⁵Faculty of Economics, Universitas Mercatorum, Rome, Italy

⁶Department of Management, Luiss Guido Carli University, Rome, Italy

Correspondence

Ioannis P. Christodoulou, Westminster Business School, University of Westminster, 35 Marylebone Road, London NW1 5LS, UK.

Email: i.christodoulou@westminster.ac.uk

Abstract

Start-ups navigate complex challenges in today's business environment, requiring a delicate balance of economic, environmental, and social objectives for long-term success. This study investigates the pivotal factors within business models that drive sustained value creation for sustainability-focused start-ups. Through a comprehensive literature review encompassing environmental, social, and performance dimensions, we identify resilience as a primary component of sustainable decision-making, supported by adaptability and convenience. Emphasizing resilience and adaptability in decision-making processes enables sustainable start-ups to maintain competitive advantages while pursuing sustainability goals. We advocate for a collaborative decision-making approach focused on long-term value creation through sustainability measures, providing a framework for developing or refining sustainable business models. Future research may further explore the identified success factors within sustainable start-ups.

KEYWORDS

key success factors of business models, sustainable business model startups, value creation

1 | INTRODUCTION

Rapidly changing consumer preferences have catalyzed a significant shift toward sustainable business models, a development that has altered the traditional paradigm of corporate practices. The imperative to embrace environmental awareness and sustainably responsible practices has grown to become a central issue in corporate social responsibility for establishments globally, regardless of size. Historically, sustainability emerged as a mere mechanism of brand management as opposed to a driving force for structural change, which ultimately necessitated a shift in approach toward a more

strategic view geared toward balancing positive impacts on the environment and society with goals toward minimizing negative outcomes (Laukkanen, 2019). Our primary research question revolves around the critical examination of the key success factors inherent in business models that play a pivotal role in nurturing sustained value creation for sustainability-focused start-ups.

Understanding the dimensions of sustainability in business and its implications for operations is increasingly crucial as business leaders consider integrating it into their business models. While sustainability challenges businesses, the integration of new paradigms into corporate governance is inevitable. Although sustainability has

This is an open access article under the terms of the [Creative Commons Attribution](https://creativecommons.org/licenses/by/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2024 The Authors. *Business Ethics, the Environment & Responsibility* published by John Wiley & Sons Ltd.

not gained universal acceptance as non-negotiable, it is often considered as a viable alternative strategy that corporations can adopt to achieve their goals. This paper seeks to investigate the required qualities of business leaders to ensure that sustainability is built into their business models and assess the impact of this integration on long-term value creation.

This rigorous research tackles the broader gap of identifying key success factors within business models that facilitate long-term value creation for sustainability-focused start-ups. The inquiry aims to explore the relationship between sustainability practices within business models and their potential for achieving positive impacts on the environment and competitive advantage. Additionally, the hurdles that prevent companies from adopting sustainability practices and the applicable mitigation methods will be examined. Finally, the research seeks to discover the essential elements that serve as useful references for implementing sustainable decision-making tactics.

Start-ups, in particular, bear a significant responsibility to ensure the success of their business due to their unique position as emerging entities. This dynamic adds significant pressure to deliver solutions that will drive value to their investors and maximize their chances of success (Bocken et al., 2018). With the world moving toward a focus on sustainability, start-ups are well-positioned to align their strategic decisions with sustainability goals, resulting in positive societal and environmental impacts while maximizing profitability.

Our study fills crucial gaps in the existing literature by focusing on the integration of sustainability into business models, particularly within the context of start-ups. It addresses the lack of clarity on how sustainability principles can be practically applied in decision-making processes within organizations, offering insights into the key success factors necessary for long-term value creation in sustainability-focused start-ups. Additionally, the research identifies and proposes mitigation strategies for the barriers hindering the adoption of sustainable business models, shedding light on structural, cultural, and implementation challenges. By emphasizing the unique position of start-ups in aligning strategic decisions with sustainability goals, the study contributes to a deeper understanding of how businesses can navigate sustainability challenges while maximizing societal and environmental impacts.

Overall, the paper delves into an exploration of sustainability-focused business models, aiming to provide both theoretical insights and practical implications for researchers and practitioners alike. Methodologically, it offers a detailed examination of qualitative data analysis techniques, focusing on memoing, coding, and selective coding as key components of the research process. By elucidating these methodologies, the paper lays a robust foundation for understanding the intricacies of qualitative research and provides a systematic framework for data analysis.

Conceptually, the study introduces the innovative concept of “resilience as a component of sustainable decision-making,” which serves as a cornerstone for theoretical exploration within the field of sustainability-focused business models. Through an in-depth examination of adaptability, convenience, and resilience, the paper uncovers the underlying mechanisms driving strategic decision-making

processes in sustainability-oriented start-ups. By developing a substantive theory within this domain, the study contributes to advancing theoretical discourse and enriching scholarly understanding.

Practically, the research offers actionable insights for practitioners engaged in sustainability-focused start-ups, highlighting the critical importance of adaptability and convenience in strategic decision-making. It underscores the necessity for businesses to prioritize customer satisfaction through convenient solutions, particularly in the context of evolving consumer preferences. Additionally, the paper advocates for a resilience-centered approach to business strategy, emphasizing the proactive integration of sustainability and adaptability to navigate dynamic environments effectively.

In summary, the paper serves as a comprehensive exploration of sustainability-focused business models, combining theoretical analysis with practical implications. By bridging the gap between academic inquiry and real-world application, the research aims to facilitate enduring value creation for sustainability-oriented start-ups while advancing theoretical discourse within the field.

2 | LITERATURE REVIEW

The popularity of the term “business model” has soared within management vocabulary in recent decades. It can be traced back to a 1957 academic article by Bellman et al. (1957), but only gained recognition in the late 1990s with the emergence of the Internet and the rise of the NASDAQ stock market. Despite being one of the most frequently discussed aspects of a business's blueprint, it remains the least understood. Although there is no widely accepted definition, all scholars have, in common, a belief that business models involve making decisions and the associated operational consequences (Shafer et al., 2005).

The lack of consensus can be partly attributed to the interchangeable use of the terms “business model” and “strategy,” making it challenging to differentiate between the two concepts. According to Yip (2004), it is more useful to reserve the term “strategy” for dynamic activities such as the routine or radical strategies that change a market or the business model. In contrast, the term “business model” is associated with static positioning (Novak, 2014). Chesbrough and Rosenbloom's (2002) definition of strategy is that it is a conscious plan of action designed to align the company with environmental threats and opportunities. It suggests how managers can leverage resources beyond the current business. Porter (1996), on the other hand, focuses on the unique activities that lead to strategic positioning. However, all authors agree that business models and strategies play a vital role in a company's competitive advantage.

The literature emphasizes the necessity of bridging the gap between business strategy and processes to establish a robust linkage between them (Osterwalder, 2004). Osterwalder (2004) positioned business models in the middle layer of his conceptualization and suggested a detailed account of the value configuration, partnerships, and capabilities to bridge the voids between business strategy and processes (Caputo et al., 2023). This framework revolutionized

strategic planning by bringing it down to the operational level and providing deeper insights into a firm's resources and infrastructure. Such alignment of company strategy and core processes with its business model lays the groundwork for achieving a sustainable competitive edge (Porter & Kramer, 2011).

Recent research by Ramdani et al. (2019) explores business model innovation and highlights its significance in adapting to dynamic market conditions. They emphasize the need for businesses to continually evolve their models to remain competitive in today's rapidly changing landscape. Similarly, Ibarra et al. (2023) conduct a systematic literature review on business model patterns, shedding light on various patterns that can guide organizations in designing effective and sustainable business models. Additionally, Duan (2023) offers insights into sharing economy business models and forecasts future research directions for sustainable development, underlining the importance of adapting business models to address contemporary societal and environmental challenges.

The discourse on sustainable business models has gained traction in recent years (Comin et al., 2019). Scholars argue that sustainable business models should not only create value for the company but also contribute positively to societal and environmental well-being. López-Nicolás et al. (2021) advocate for the integration of sustainability into innovative business models, highlighting the potential for synergistic outcomes that benefit both the organization and the wider community. Böttcher et al. (2023) delve into digital sustainable business models, showcasing how digital technology can be leveraged to embed ecological sustainability into the core of business operations (Figure 1).

3 | THE BUSINESS MODEL CANVAS

Many firms tend to focus more on the value creation part of a model and ignore or downplay the value capture portion (Shafer et al., 2005). Balancing the two can be not only a complex process but also a major determinant for successful business models. To craft a business model that harmoniously merges value capture and value creation, Osterwalder and Pigneur (2010) proposed nine building blocks that focused on feasibility, desirability, and viability. These

building blocks came to be known as the Business Model Canvas—a tool for describing, visualizing, assessing, and changing business models (Robinson & Lock, 2016).

The Business Model Canvas has emerged as a foundational tool in the realm of business model innovation, offering a structured approach to designing and refining business models (Osterwalder & Pigneur, 2010). Figure 2 provides insights into the usefulness of each element of the Business Model Canvas, illustrating how these components interact to create a coherent and effective business model.

Drawing on the work of others is crucial in developing a common language and framework for constructing business models (Zott et al., 2011). Johnson et al. (2008) present a complementary view, emphasizing four interlocking elements—customer value proposition, profit formula, key resources, and key processes—that underpin successful business models. These elements converge on satisfying genuine customer needs while outlining the blueprint for profit generation (Johnson et al., 2008).

Sustainability has increasingly become a focal point in discussions surrounding business models (Schaltegger et al., 2016). With technological advancements accelerating the urgency for sustainability, there is a growing recognition of sustainability as a driver of success. As the world grapples with the consequences of environmental shifts, there is a heightened demand for transformative business practices that integrate sustainability principles into their core operations.

Figure 2 investigates the usefulness of each element of the Business Model Canvas.

4 | SUSTAINABILITY—UNSUSTAINABLE DEVELOPMENT GOALS

The United Nations 2030 Agenda stands as a monumental global initiative aimed at reshaping the world through a shared vision and a set of ambitious goals and targets. With its seven transformative goals and 169 associated targets, the Sustainable Development Goals (SDGs) paint a compelling picture of a future where societies thrive without hunger, extreme poverty, or environmental degradation. However, while the SDGs offer a promising blueprint for global

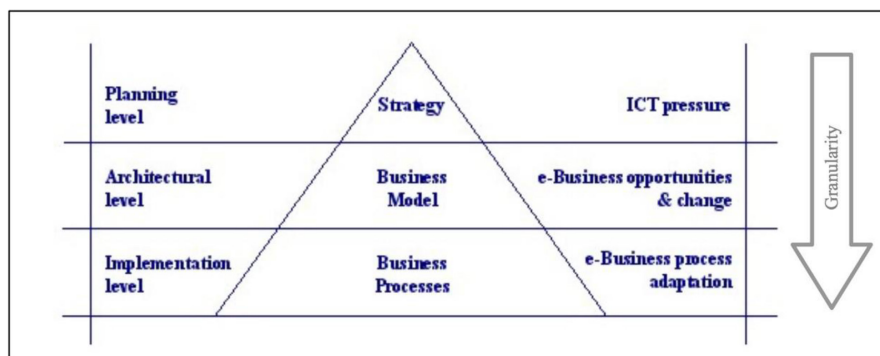


FIGURE 1 Closing the gap between business strategy and business processes (Osterwalder, 2004).

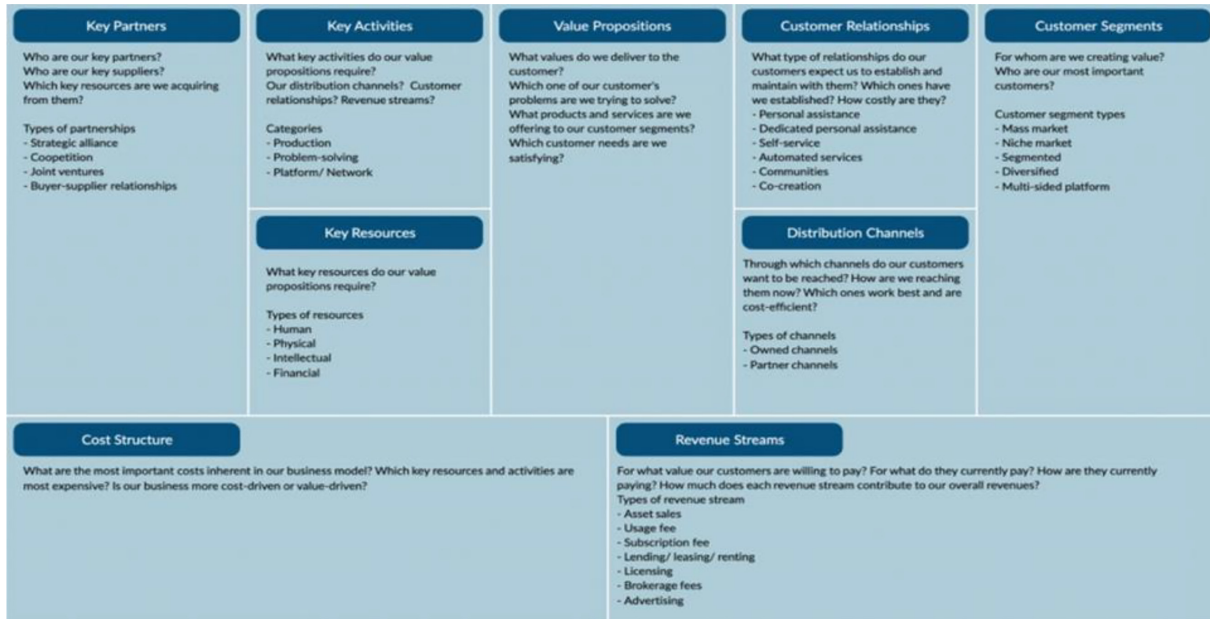


FIGURE 2 Business Model Canvas and the usefulness of each element.

progress, their achievement necessitates a profound shift in both mindset and action across all sectors of society (THE 17 GOALS | Sustainable Development, n.d.).

The concept of sustainable development, first articulated in the 1987 Brundtland Report, emphasized the need for long-term environmental strategies to ensure sustainability beyond the turn of the millennium. Since then, there has been growing recognition of sustainability as a strategic imperative for organizations, extending beyond mere environmental concerns to encompass social and economic dimensions (Brundtland, 1987; Vithessonthi, 2009). However, the pursuit of sustainability has not been without challenges. Critics argue that the current emphasis on economic growth often sidelines social and environmental considerations, leading to a trade-off between short-term gains and long-term sustainability (Böttcher et al., 2023).

The triple bottom line (TBL) framework, introduced by Elkington in 1994, sought to address this imbalance by advocating for businesses to create value not only for shareholders but also for society and the environment. However, while the TBL has gained traction as a guiding principle for sustainable business practices, its implementation remains a challenge. Companies often struggle to balance conflicting stakeholder interests and face pressure to prioritize short-term financial gains over long-term sustainability (Elkington, 1994; Opoku et al., 2018). Moreover, measuring and quantifying the social and environmental impact of business activities poses significant methodological and practical hurdles, hindering efforts to effectively integrate sustainability into business models (Arowoshegbe et al., 2016; Pinkse et al., 2023).

Figure 3 illustrates the complexity of the triple bottom line, highlighting the interplay between economic, social, and environmental factors. While economic prosperity is essential for societal well-being, it must be achieved in a manner that is socially inclusive

Sustainable Procurement

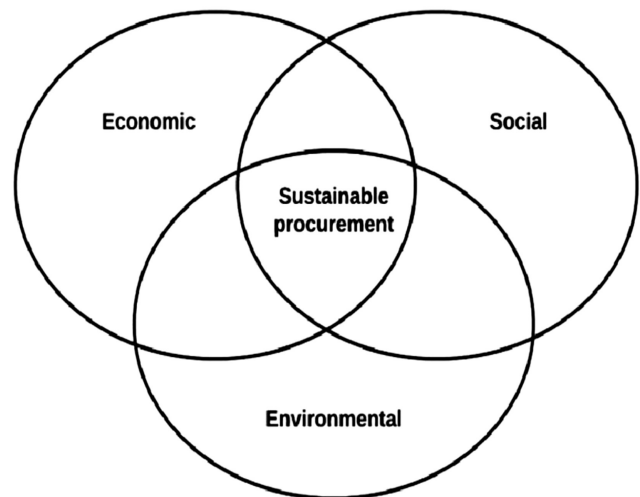


FIGURE 3 Triple bottom line of sustainability (Elkington, 1994).

and environmentally responsible. However, achieving this balance requires a fundamental reorientation of business models and organizational practices, challenging entrenched norms and paradigms (López-Nicolás et al., 2021; Spangenberg, 2005).

While the SDGs offer a compelling vision for a sustainable future, their realization hinges on overcoming significant barriers and challenges. Integrating sustainability into business models requires not only a shift in mindset but also concrete actions to align economic, social, and environmental objectives. This necessitates a critical examination of existing paradigms and practices, as well as a commitment to innovation and collaboration across sectors and

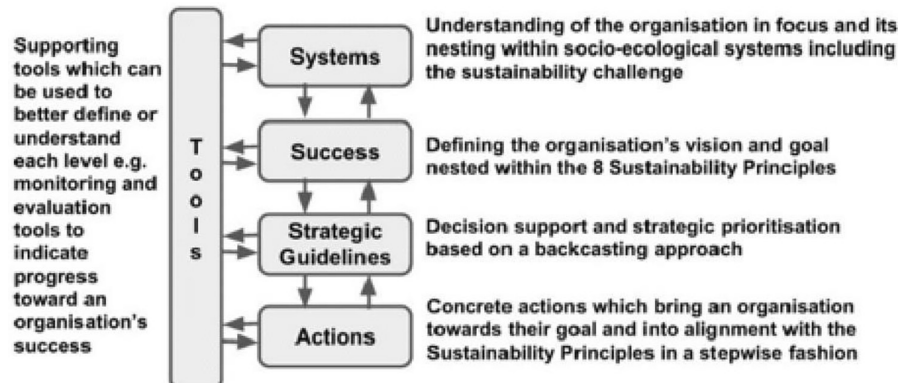


FIGURE 4 Five-level structure of the FSSD design (Broman & Rob rt, 2017).

stakeholders (Rizos et al., 2016; Schaltegger et al., 2016). Only through concerted effort and collective action can businesses truly contribute to the achievement of the SDGs and pave the way for a more sustainable and equitable world.

5 | FRAMEWORK FOR STRATEGIC SUSTAINABLE DEVELOPMENT

Today, while many leaders acknowledge the reality of climate change, there remains a significant gap in understanding its underlying causes and the urgency for action. Broman and Rob rt (2017) highlight this gap, emphasizing the need for a more comprehensive understanding of the challenges posed by climate change. In response to this imperative, the Framework for Strategic Sustainable Development (FSSD) has emerged as a guiding framework for integrating sustainable practices into business models. By providing concepts and tools for organizations to align their operations with sustainability goals, the FSSD offers a pathway for businesses to address their environmental impact while also reaping competitive advantages and reducing operational risks and costs (Broman & Rob rt, 2017; Gren et al., 2020).

Figure 4 illustrates the hierarchical structure of the FSSD, offering a multilevel approach to analyzing and addressing sustainability challenges within organizations. This structured approach enables firms to identify and mitigate their negative environmental impacts while fostering collaboration and knowledge exchange among stakeholders (THE 17 GOALS | Sustainable Development, n.d.). However, the successful implementation of the FSSD requires a fundamental shift in organizational culture and values. Van Hoof and Thiell (2014) emphasize the importance of shared understanding and collaboration in driving sustainable change within organizations. By fostering an environment of information exchange, value sharing, and problem-solving, firms can effectively navigate the complexities of sustainability and embed it into their core business practices (B ttcher et al., 2023; Van Hoof & Thiell, 2014).

The FSSD offers a structured approach to integrating sustainability into business models, providing organizations with the tools and frameworks needed to address environmental challenges.

However, its successful implementation requires a concerted effort to align organizational values and practices with sustainability goals. By embracing sustainability as a core business imperative and aligning with global initiatives such as the UN Sustainable Development Goals (SDGs), companies can not only mitigate their environmental impact but also drive innovation, resilience, and long-term value creation (Rizos et al., 2016; Schaltegger et al., 2016).

Figure 4 illustrates the five-level structure of the FSSD design.

6 | CONNECTING SUSTAINABILITY TO BUSINESS MODELS

The integration of sustainability into business models represents a paradigm shift in organizational thinking, with various definitions and approaches emerging as this concept continues to evolve. L deke-Freund (2010) conceptualizes sustainable business models (SBMs) as those that not only create competitive advantage through superior customer value but also contribute to the sustainable development of both the company and society. In a similar vein, Schaltegger et al. (2012) advocate for SBMs that incorporate voluntary activities aimed at addressing social and environmental challenges, thereby generating positive business outcomes. However, despite these conceptualizations, the literature on sustainable business models remains somewhat fragmented, reflecting the complex and multifaceted nature of sustainability within organizational contexts (Bocken et al., 2014).

Bocken et al. (2014) highlight the importance of overcoming structural and cultural barriers within organizations to effectively integrate sustainability into business models. They argue that collaboration with key stakeholders is essential for fostering system-wide sustainability, underscoring the need for a holistic approach that transcends traditional organizational boundaries. Despite the ambiguity surrounding the relationship between sustainability and business models, scholars are united in their pursuit of integrating economic, social, and environmental considerations into value creation and capture processes (Sinkovics et al., 2021). This convergence of perspectives reflects a shared objective among researchers to develop actionable frameworks that address specific sustainability challenges within organizational contexts.

However, a significant limitation in current research on sustainable business models lies in the fragmentation of knowledge and the lack of synthesis and consolidation. Lüdeke-Freund, Bohnsack, et al. (2018) emphasize the need for a robust and transparent methodology that synthesizes existing knowledge into actionable insights. Building on this need for synthesis, Bocken et al. (2014) propose eight archetypes as a starting point for broadening and unifying the research agenda on sustainable business models. These archetypes provide a framework for understanding the diverse approaches to integrating sustainability into business models, offering valuable insights for researchers and practitioners alike.

The integration of sustainability into business models represents a complex and evolving field of study, characterized by diverse perspectives and approaches. While challenges remain in terms of synthesis and consolidation, scholars are actively contributing to a shared objective of advancing sustainable business practices through the integration of economic, social, and environmental considerations. By addressing these challenges and building on existing knowledge, researchers can develop actionable frameworks that empower organizations to navigate the transition toward sustainable business models effectively. Figure 5 (Bocken et al., 2014).

7 | BARRIERS FOR SBMS

Addressing barriers to the adoption and implementation of sustainable business models (SBMs) is crucial for organizations seeking to integrate sustainability into their operations effectively. Amshoff et al. (2015) propose a framework for standardizing SBMs across different contexts, highlighting the need to distinguish between sustainability's role within the overall business model and its integration within specific components. This framework underscores the importance of contextualizing sustainability initiatives to meet the diverse needs of organizations operating in various sectors and industries.

A significant barrier to the widespread adoption of SBMs lies in the classification and synthesis of existing knowledge within the field. Lüdeke-Freund, Carroux, et al. (2018) emphasize the need for a new reference system that builds upon and extends existing frameworks, facilitating a more comprehensive understanding of SBMs. This call for synthesis reflects the fragmented nature of current

research and the necessity of developing cohesive frameworks that can guide organizations in their sustainability efforts.

The introduction of "patterns" by Gassmann et al. (2014) offers a promising avenue for addressing barriers to SBMs by identifying recurring themes and solutions to sustainability challenges. However, the lack of a meta-structure within these patterns hinders their practical application and scalability. Remane et al. (2016) address this limitation by proposing a structured approach to bridge the gap in business model patterns, offering a systematic tool for guiding firms toward the most suitable patterns for their specific contexts. By integrating 182 identified patterns and applying them to different industries, their research provides a solid foundation for understanding the implications of these patterns on business models, thus overcoming barriers to SBM adoption and implementation.

Addressing barriers to SBMs requires a multifaceted approach that includes standardization, synthesis of existing knowledge, and the development of practical tools for implementation. By leveraging frameworks that contextualize sustainability initiatives, organizations can overcome barriers and effectively integrate sustainability into their business models, paving the way for more sustainable and resilient enterprises.

In summary, the literature review delves into the evolving discourse on business models, particularly in the context of sustainability. Despite the term's origins dating back to the late 1950s, there remains a lack of consensus on its definition, complicating distinctions between business models and strategies. Osterwalder's Business Model Canvas, introduced in 2010, provided a structured framework for balancing value creation and capture. However, challenges persist in aligning business strategies with sustainability goals, as highlighted by the United Nations 2030 Agenda and the triple bottom line approach.

Efforts to integrate sustainability into business models, as evidenced by the Framework for Strategic Sustainable Development (FSSD), face hurdles such as standardization and synthesis of diverse knowledge. Nonetheless, scholars continue to contribute valuable insights into sustainable business models (SBMs), emphasizing the need for competitive advantage while addressing societal and environmental concerns. Overall, the expanded literature review underscores the growing significance of sustainability in shaping business models and strategies, highlighting the ongoing need for innovation and alignment to navigate contemporary challenges effectively.

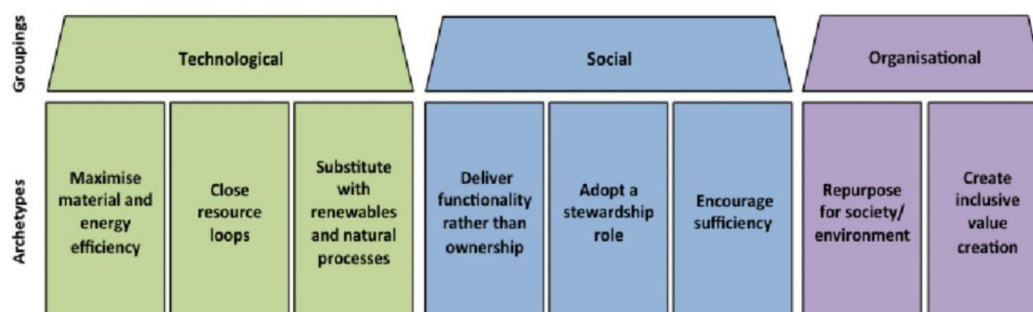


FIGURE 5 Archetypical business models (Bocken et al., 2014).

8 | METHODOLOGY AND RESEARCH DESIGN

To support the critical analysis performed in the literature review about the relationship between business models and sustainability within start-ups, a qualitative study was conducted. Qualitative research provides a comprehensive understanding of rich, contextual, and generally unstructured, non-numeric data that produces explanations or arguments which are “generalizable” in some way or have some demonstrable wider resonance (Mason, 2002). Jamshed (2014) found that by adopting the qualitative method, the researchers can fine-tune the preconceived notions to envision the thought process and analyze issues from an in-depth perspective.

Concerns about the accuracy of qualitative research have been questioned and, thus, Lincoln and Guba (1985) investigated the absence of validity within qualitative research. They outlined four fundamental criteria that should be assessed: credibility, reliability, dependability, and confirmability (Lincoln & Guba, 1985). For each of these concepts are research activities or steps that the researchers should engage in to be able to safeguard or satisfy each of the previously mentioned criteria and thus attain trustworthiness (Cypress, 2017). The aspects of these criteria were applied as guidelines in this study as a means of justifying the data collected and theories generated in the next chapter.

9 | RESEARCH PHILOSOPHY: INTERPRETIVISM

Interpretivism is often the underlying research philosophy associated with qualitative studies. Interpretivists study meanings to create new, rich understandings of organizational realities (Saunders et al., 2018). The interpretive research paradigm is characterized by a need to understand the world from a subjective point of view and seeks to provide an explanation within the frame of reference of the participant rather than the observer of the action (Ponelis, 2015). In this type of study, meanings usually emerge toward the end of the research process (Dudovskiy, 2014). This paper focuses on two popular interpretivist approaches for collecting qualitative data which will be discussed in detail later in this chapter. The two techniques are briefly described below:

1. Interviews—the most common technique that can manifest in several forms such as face-to-face, via telephone, or in focus groups (Nickerson, 2022).

2. Documentation—secondary information including annual reports, financial statements, and newspaper articles (Nickerson, 2022).

10 | RESEARCH TYPE: INDUCTIVE

Also in accordance with the preceding philosophy, this research will seek to create an understanding using an inductive approach, where theory is built after data collection and analysis (Saunders et al., 2012). Glaser et al. (1968) pioneered the notion that theory can be generated inductively, allowing the researchers to gain insight into areas that cannot be quantified such as behaviors, motivations, and societal norms. These insights aim to generate meanings from the data collected to identify patterns, resemblances, and regularities within the research to develop a theory that could explain the observations.

Figure 6 helps to visualize the progression of inductive research.

Information processed using an inductive approach is often referred to as a “bottom-up,” where no hypotheses can be found in the initial stages of the research and the nature of the findings is generally uncertain until the study is complete (Dudovskiy, 2014). An inductive approach offers a convenient and efficient way to analyze qualitative data and establish a clear link between the research objectives and the findings derived from the collected data and ensures that these links are transparent and defensible (Thomas, 2003).

11 | TIME HORIZON: CROSS-SECTIONAL

For practical reasons, the research conducted in this study was cross-sectional, meaning the information gathered from respondents was applicable for a particular instant in time. The data was collected during two months from the end of June of 2022 through the end of August 2022. A cross-sectional study is appropriate as it is strictly observational, allowing it to be used as a foundation for future research. By gathering data once, research and analysis can be completed relatively quickly, and the flexibility of this study allows the researchers to measure multiple factors at once (Jansen & O’Ryan, 2020). Overall, due to the time constraints given for this research, this mode of data collection is the most feasible to fulfill the aims of the previously mentioned objectives.

12 | SAMPLING STRATEGY: NON-RANDOMIZED

Due to the time constraints of this research, four distinct interviews took place with individuals in managerial roles related to

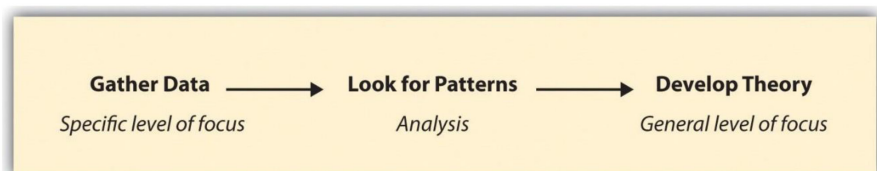


FIGURE 6 Progression of inductive research (DeCarlo, 2018).

sustainability and/or strategy. The interviews focused on the technology industry as this sector continues to face challenges in the wake of growing climate concerns across the globe. During the selection of participants for this project, a purposeful sampling process was used to ensure feasibility and access to relevant data. A nonrandomized approach allowed the researchers to select individuals that are compatible with the research question to provide optimal chances for concepts and theories to be drawn upon concluding the data collection process. All start-ups interviewed were headquartered in the United Kingdom. A brief synopsis of each participant and information on their company has been included in Chapter Four.

13 | DATA COLLECTION METHOD: INTERVIEWS

To validate the research questions, in-depth interviews were conducted with four technology start-ups in London to explore their experiences and challenges related to sustainable business models. The interviews were executed using a semistructured format, allowing the participants to share their stories and insights freely; providing valuable data on how start-ups are approaching sustainability issues in their strategic decisions.

The meetings were designed and developed following the general outline of semi-structured interviews. All interviews were conducted via Zoom and lasted approximately 20 to 30 minutes overall. The exact same 14 questions (see [Appendix](#)) were asked to all participants. These questions were carefully crafted to focus on Business Models and Sustainability, respectively. All data collected was recorded with the permission of the participants and subsequently transcribed into text using a transcription software called Dovetail (see [Appendix](#)). Transcribing verbal data allows the researchers to carefully listen to, pay close attention to, and think deeply about digitally recorded data situated within a particular interview context (Widodo, 2014).

All communication with potential contacts occurred via LinkedIn direct message and company email. All companies are within the tech industry, with different areas of concentration ranging from food and beverage to financial services. All companies interviewed declared an organizational size of 11–50 employees. The main method used to identify prospective participants was LinkedIn's search function. Using filters and features available on LinkedIn, 24 companies were contacted with a success rate of 17%, resulting in 4 companies being interviewed.

For secondary data collection, a limited amount of accessible information existed given the size and age of the companies interviewed. Before each interview, secondary research was administered to investigate how the company is connected to the research topic. This was important as it helped to retrieve information that already exists in the form of publications or other electronic media (Easterby-Smith et al., 2018) such as financial documents, annual reports, and so on, to cast further insight into a phenomenon of interest or to corroborate other forms of data (Smith et al., 2011).

14 | DATA ANALYSIS METHOD: GROUNDED THEORY

The strategy used to interpret and analyze data obtained from this research was Grounded Theory. The qualities of grounded theory rely on three distinct elements (1) the researchers's expertise, knowledge, and research skills (2) methodological congruence with the research question and (3) procedural precision in the use of methods (Tie et al., 2019). This strategy offers an emergent approach to data collection and analysis—in particular, “hypotheses are not formed in advance, and instead the literature review is updated parallel to the data collection, so that both efforts may continuously inform each other” (Carleton, 2010). Many frameworks have been adapted since the theory's conception, and virtually all refer to “codes” that are designed to assist in investigating and, ultimately, forming a theory. [Figure 7](#) provides a deeper perspective on the stages used for grounded theory data analysis that will be expanded on in Chapter Four.

The open, selective, and theoretical coding strategy facilitates a cyclical and evolving data loop that allows the collected data to be assembled, categorized, and thematically sorted, providing an organized platform for the construction of theory (Williams & Moser, 2019). These categories allow the researchers to qualitatively interpret the data to critically examine findings and possible contradictions. According to Dudovskiy (2018), these are the four most popular and effective methods that will be utilized in the data analysis in the following section:

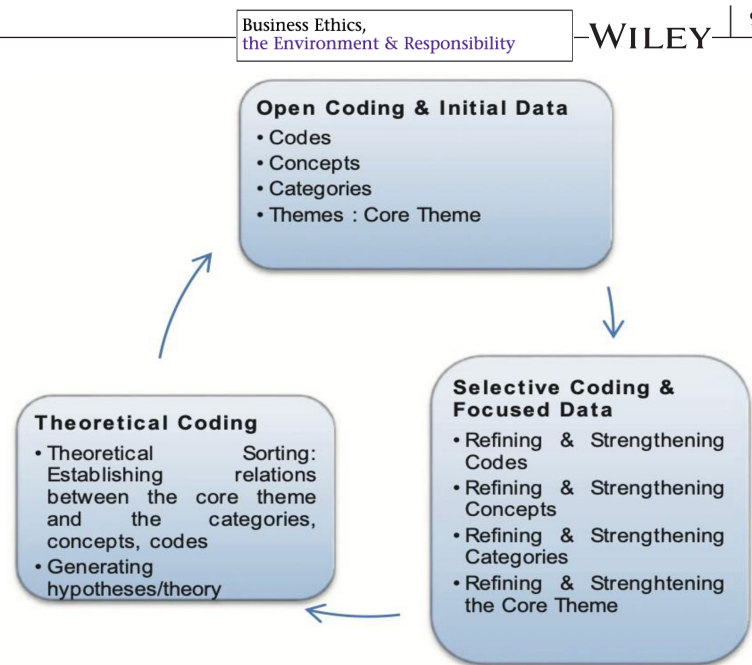
1. *Word and phrase repetitions*—scanning primary data for words and phrases most frequently used by respondents.
2. *Primary and secondary data comparisons*—comparing the findings of interviews/relevant data collected with the findings of literature review and discussing differences between them.
3. *Search for missing information*—discussions about which aspects of the issue were not mentioned by respondents despite anticipating them to be mentioned.
4. *Metaphors and analogues*—comparing primary research findings to phenomena from a different area and discussing similarities and differences

Overall, grounded theory allows the researchers to perform a comprehensive approach to analysis that integrates learnings and insights gained during the process from a refined and sharpened focus, providing the most efficient results.

15 | CREDIBILITY

As with any type of methodology, evaluating the quality of research and the challenges that could have impacted the results is essential. Eisenhardt and Graebner (2007) believe that these challenges can be mitigated through careful justification of theory building, theoretical sampling of cases, interviews that limit informant bias, rich presentation of evidence in tables and appendices, and clear statement

FIGURE 7 Stages used for grounded theory data analysis (Qureshi & Ünlü, 2020).



of theoretical arguments. The researchers took significant steps to avoid jeopardizing the credibility of the methodology and the reliability of the emergent theory. This section identifies three obstacles encountered during the study and discusses how they were resolved.

1. *Recognizing the role of literature:* As noted in Chapter Three, the literature review should not be used as a theoretical background, but rather as data to be used by the analytic strategies of the research (Ramalho et al., 2015). The researchers conducted a foundational literature review focusing on general conceptualizations of business models and sustainability frameworks. However, upon completion of the data collection and analysis stages, the literature review was revisited and updated to avoid lowering the credibility of this study's methodological approach.
2. *Avoiding preconceived notions:* Approaching research with no preconceived ideas that could potentially influence the emergent data is crucial (Glaser, 1978). This was perhaps the most significant obstacle considering the substance of the research question contained material that was studied by the researchers during previous modules. To detach personal preconceptions from the emergent data, the researchers placed greater analysis on the memos generated during interviews when developing codes and categories for the theory.
3. *Achieving saturation:* A major implication of the data collection process was determining how to measure theoretical saturation and anticipating when this target was reached. Terminating data collection too early could lead to an incomplete discovery while collecting too much data can lead to an unnecessarily amplified theory. To alleviate this, the constant comparative method was utilized to ensure that an effective "fit" of the emergent categories was achieved and that no further categories were emerging from the data (Abdellah, 2016).

16 | ANALYSIS

When it comes to the analysis coding took place (extensive details all provided upon request). Throughout the data collection process for this research memos were written to capture supportive documentation that could later be analyzed to extract meaning. Memoing is a flexible practice with no predefined framework; the process can include notes, pictures, sentences, outlines, and diagrams that are conducive to the researchers for conceptualizing emerging ideas (Glaser & Holton, 2004). Regardless of how trivial these thoughts, feelings, and impressions initially appear, the creation of a memo ensures the preservation of such records that may later prove valuable (Polit & Beck, 2006). During the data collection portion of this research, over a dozen memos totaling over 1000 words were recorded by the researchers. This provided the researchers with a strategy for maintaining consistency and interconnectedness (Richards, 2005) by engaging with the data to form potential meanings, codes, and patterns.

These memos and how they contributed to understanding the emergent data are mentioned throughout this chapter to support the conceptual development of the data collected. The identities of the participants described below have been protected for ethical reasons. Anonymity was permitted by this qualitative study and to help stimulate participation. All participants signed a Participant Information Sheet describing the nature of the study and informing them on how the data was collected. They also signed a consent form that granted permission for the data collected to be used by the researchers. Below is a Table 1 that summarizes the participants interviewed and provides a brief overview of their company's mission.

After the first interview was conducted, the first set of codes was developed and re-examined until saturation was achieved. By fracturing the data into manageable portions, the researchers were able to broadly assign codes that could later be analyzed in greater detail. While this process could have been done by hand, the use of

TABLE 1 Overview of participants studied.

Company name	Participant role	Year founded	Tech industry	Background information
1 Ekko	Co-founder	2021	Financial services	Ekko combines fintech, marketplace, open banking and retail into one transformative app—where every transaction has a positive reaction
2 Good Club	Sustainability lead	2019	Food and beverage	Good Club is an online sustainable grocer and is hoping to help our fight with plastic and cardboard packaging through the launch of its zero-waste delivery service
3 Clim8	Head of sustainability	2019	Financial services	Investing for climate impact. Portfolios crafted by Clim8 investment experts that allows you to make money work for you and the climate
4 Allplants	Sustainability lead	2016	Food and beverage	Allplants makes it delicious and easy for anyone to make the switch toward plants one dish or day at a time, with delicious, chef-made, plant-based food straight from their kitchen to yours

this program significantly strengthened the consistency and directional clarity of the initial codes into categories.

The next stage of the coding process, selective coding, focused on hyper-analyzing the codes identified in the previous stage and dividing them into categories. A saturation process followed, during which codes and concepts were reviewed, revised, renamed, added, and deleted as suggested by Charmaz (2014). The selective coding stage resulted in three major categories emerging from the data.

The researchers immersed themselves in the data, exhausting all possible abstract and theoretical concepts that could arise from the initial coding process (Abdellah, 2016). Taking advantage of a reductive approach allowed the researchers to identify only those elements necessary to assess the research question and conduct a thorough analysis of the data. This process was extensive and required continuous comparison and revisitation. By cautiously recoding, the researchers were able to look past the raw data and read between the lines to achieve greater conceptualization. Throughout the initial analysis, several codes were altered or dropped completely as the researchers deemed them relevant or not. For example, the “realistic expectations” code was compared to the “responsive decisions” code and led to the combination of the two into the “open mind” concept displayed above. This system was instrumental in identifying the three core categories that surfaced from the data.

Progressively understanding the underlying meaning of the data allowed the researchers to decide on 3 tentative categories: (i) accessibility of resources, (ii) capacity to change, and (iii) curiosity.

Accessibility of resources—This category comprised of codes that related to how the participants interviewed described the consumer’s perspective on their product relative to its sustainability aspect. The data suggested consumers often lack the time, money, and knowledge to live sustainably. This was often the “problem” that sparked the creation of the start-ups interviewed.

Decision-making—This category was not as evident as the others, however, is suitable as this concept highlights the underlying principles that tend to fuel start-ups. The “Open Mind” code

supports this category as it emphasizes the participants’ attitudes toward new opportunities and the growth mindset of start-ups. This category focuses on the cautious but curious subcomponents that accompany exploration and expansion for the companies in this study.

Overall, selective coding narrowed the data down to three core variables, which acted as a specific guide for the final stage of coding. By confining the data available, the study was able to transition to focusing on the factors that affect the core variable(s). This foundation is pivotal for the detailed connection to be made in the final stage. This allowed for the advancement of theoretical coding and the development of key concepts.

Theoretical coding is considered the final stage of the coding analysis process and revolves around thinking about how substantive codes relate to each other (Glaser, 1978). Meaning derives through developing conceptual links that go beyond concepts and categories; they explore *how* codes, concepts, and categories are analogous. Upon saturating the emergent categories, the data was thoroughly synthesized, and the core phenomenon began to emerge. After extensive analysis, the core concept that emerged was “resilience as a component of sustainable decision-making.” Recognizing how the relationships between the three separate variables mentioned in the previous stage are interrelated allowed the core concept to surface. Resilience, in the broader sense, revealed itself frequently within the data and appeared to be a uniting factor upon validation. As the categories progressed and developed, the core concept consistently established itself as a vital element in decision-making, particularly in the context of the uncertainty associated with sustainability.

The core concept of “resilience as a component of sustainable decision making” supports the pursuit of the research question and objectives and attempts to predict the interplay between sustainable business models and competitive advantage. The insights uncovered through grounded theory allowed the core phenomenon to move into an emergent theory that will be defended in the following section.

17 | DISCUSSION AND CONCLUSION

Culminating our exploration, we now turn to the final part of our study. Our central research focus was to investigate what key success factors are crucial within business models to foster enduring value creation for sustainability-focused start-ups. In doing so, we examined how companies in the sample approach strategic planning for their sustainable business models, with a focus on the role of resilience in achieving long-term sustainability. Resilience, as defined by Marchese et al. (2018), refers to a system's ability to prepare for threats, recover, and adapt following a disruptive or stressful event. Through analysis, it was determined that adaptability and convenience were key factors in promoting resilience, aligning with the research question's objectives. In today's fast-paced business landscape, the ability to adapt is essential for effective leadership. This requires critical and creative thinking, comfort with ambiguity, risk-taking, and the capacity to rapidly adjust to new situations while continuously evaluating them. While not a novel concept, adaptability has become a critical success factor for start-ups that operate in an ever-changing environment. Unlike larger companies, start-ups do not follow a predetermined formula for decision-making. Their agility in making quick changes can be the difference between success and failure. An individual participating in a study on adaptability stated that they change decisions quickly to avoid following outdated trends. Instead, they aim to anticipate and create future trends: "...we change decisions very quickly or we add to our, you know, our roadmap [sic. whatever it is] very quickly because we want to make sure that we're not doing something that was a trend five years ago. We, we need to make sure we're doing something that's actually going to be the trend in five years. So it's, it's really thinking, thinking forward."

Adaptability and resilience are critical for sound decision-making that can withstand the test of time. Both aspects offer different perspectives on evolving situations, enabling companies to shift their thinking and make the best decision that will benefit them in the long run. In the realm of business models, adaptability is a vital component of strategic planning for companies that want to outperform their competitors and generate lasting value. In the realm of sustainable decision-making, it is vital to possess adaptability and resilience. These qualities allow for a comprehensive evaluation of an evolving situation, enabling a thoughtful and effective response that carries valuable insights and learning into the future (Davis et al., 2014). Within the framework of business models, adaptability stands as a crucial factor for strategic planning, allowing companies to outshine their competitors and create long-term value.

When it comes to convenience factor, in the wake of the pandemic, customer satisfaction has become increasingly reliant on it. In fact, during the initial analysis stage, convenience was the most frequently discussed topic. The data collected revealed that convenience, or similar phrases, were mentioned a total of 15 times, underscoring its importance for success. One noteworthy observation was that customers tend to be hesitant to alter their daily routines, which is particularly true for their day-to-day operations.

This was one of the key barriers identified during analysis and can be seen from Participant 4's insight on the issue:

This is actually, it's often the reason why people are sort of hesitant to live a vegan lifestyle is because they don't know where to start and it can get overwhelming very quickly. But having easy access to the dishes we offer is solving the issue of getting each ingredient individually and overall saves time on the cooking aspect.

In multiple instances, the solution to encouraging a sustainable lifestyle appeared to rely heavily on convenience to persuade consumers to shift their preferences. Participant 3 stated:

...if you could take a lazy person, right, who acknowledges climate change, who doesn't want to do anything extra on their day or spend any more money, this product will make it easy, convenient, and make it effortless for them to make that difference and tangible...

The role of convenience cannot be overstated in driving business opportunities, especially for sustainability-focused companies that aspire to remain relevant and visible. As the future of business is expected to become increasingly uncertain and competitive, it is paramount to understand convenience as a subcomponent of resilience when making business decisions. This understanding can create an effective avenue for long-term value creation.

The comparative analysis imposed by grounded theory can yield two possible types of theory: substantive and formal. Substantive theories arise from work in a specific area and do not attempt to theorize outside the existing area of investigation. Formal theory, on the other hand, can explain concepts across a range of situations. The research presented herein leans more toward substantive theory and can be considered a "springboard or steppingstone" for additional discoveries to be made, as posited by Glaser and Strauss (1967). Overall, this research presents a valuable contribution to the existing literature on the topic.

18 | CONTRIBUTION AND IMPLICATIONS

The research findings offer substantive contributions to the understanding of how technology start-up companies in London can effectively integrate sustainability into their business models.

The study presents a comprehensive framework that elucidates the crucial factors contributing to competitive advantage in this context. By synthesizing various strands of research, including theories on business models and sustainability, our work provides a valuable foundation for future scholarly inquiries.

18.1 | Contributions for theorists

This study makes a significant contribution to the field of qualitative research by advancing our understanding of data analysis techniques. It provides a comprehensive exploration of memoing, coding, and selective coding, offering valuable insights into their practical application in qualitative analysis. The flexible memoing approach employed in this research enables the systematic capture of emerging ideas, thoughts, and impressions, thereby enriching the data collection process. Researchers can benefit from this methodology, which breaks down data into manageable portions and refines codes into coherent categories, facilitating the identification of underlying themes and patterns in qualitative data.

Moreover, this study underscores the importance of theoretical coding as the final stage of the analysis process. By demonstrating how substantive codes can be linked conceptually to form a foundation for emergent theory development, it offers researchers a roadmap for uncovering deeper layers of meaning within their data. This advancement contributes to the enhancement of knowledge and understanding in qualitative research practices.

The introduction of the concept of “resilience as a component of sustainable decision-making” represents a significant contribution to academic discourse. This concept has the potential to catalyze further theoretical exploration within the context of sustainable business models. Given the pivotal role of resilience in navigating evolving and uncertain environments, it holds relevance for researchers across sustainability and business strategy domains.

Furthermore, this research aligns with the tradition of developing substantive theories, focusing on specific areas of investigation. In accordance with Glaser and Strauss's conceptualization, this study serves as a “springboard” for additional discoveries within the same domain, thereby enriching the theoretical foundation and knowledge base of the field.

18.2 | Implications for practitioners

From a critical standpoint, this research provides significant implications for practitioners engaged in data management and decision-making processes. It highlights the importance of memoing as a tool for organizing and preserving insights during data collection. While memoing can enhance data management, its effectiveness may vary depending on the thoroughness and consistency of its application, posing challenges for practitioners to maintain comprehensive records amidst the complexity of qualitative research.

The study emphasizes adaptability and convenience as critical success factors for sustainability-focused start-ups. While these insights offer valuable guidance, practitioners must critically assess their applicability within their specific business contexts. Adapting to evolving consumer preferences and market dynamics requires a nuanced understanding of the trade-offs involved, which may pose challenges for practitioners striving to balance sustainability goals with commercial viability.

Furthermore, the research advocates for prioritizing resilience within business models, acknowledging the need to navigate rapidly changing and uncertain environments. However, practitioners must critically evaluate the feasibility of integrating resilience strategies into their existing frameworks, considering potential resource constraints and organizational capabilities. Implementing resilience-centered strategies may require substantial investments in training, technology, and organizational culture, posing challenges for practitioners seeking to align sustainability objectives with operational realities.

The emphasis on convenience as a driver of customer satisfaction raises questions about the trade-offs between convenience and sustainability. While convenience may enhance consumer adoption of sustainable practices, it may also perpetuate unsustainable consumption patterns and exacerbate environmental degradation. Practitioners must critically evaluate the ethical implications of convenience-driven strategies, balancing short-term gains in customer satisfaction with long-term sustainability goals.

Moreover, while adaptability is presented as a core principle in decision-making, particularly for start-ups, practitioners must critically assess the risks associated with rapid changes. While agility can confer a competitive advantage, it may also increase organizational vulnerability to market disruptions and regulatory changes. Practitioners must critically evaluate the trade-offs between agility and stability, considering the long-term implications for organizational resilience and sustainability.

The concept of “resilience as a component of sustainable decision-making” offers a strategic framework for practitioners to navigate complex and uncertain environments. However, practitioners must critically evaluate the feasibility of implementing resilience-centered strategies within their organizational contexts, considering competing priorities and resource constraints. Effectively integrating resilience into decision-making processes may require organizational restructuring, cultural transformation, and stakeholder engagement, posing significant challenges for practitioners striving to foster long-term value creation.

While this research offers valuable insights for practitioners, it also underscores the need for critical reflection and contextual adaptation. Practitioners must critically assess the applicability and feasibility of the proposed strategies within their specific organizational contexts, recognizing the inherent trade-offs and complexities involved in integrating sustainability into business practices.

In summary, this research not only enhances theoretical understanding but also offers practical insights, bridging the gap between academic exploration and real-world application. It contributes to a deeper comprehension of resilience within the context of sustainability-focused start-ups, benefiting both the academic and practitioner communities.

19 | RECOMMENDATIONS FOR FUTURE RESEARCH

This theory offers valuable guidance to business leaders looking to apply interrelated concepts to their organizations. For a deeper

understanding of each topic, we recommend independent research on every concept identified in the previous chapter. This approach may lead to the development of new frameworks, with research findings forming the basis for future agendas.

Our paper lays the groundwork for creating long-term value through effective decision-making, which may be relevant to other emergent theories. Future research could explore the impact within organizations facing similar situations, considering comparable parameters. Additionally, it is important to examine the implications of neglecting sustainability within business models.

Our study serves as a feasible starting point for further research in the field of sustainable business models. We have identified key issues that require attention in future studies. To expand the scope of our research, we suggest conducting additional sampling. Comparing results with the assumptions presented in this paper would provide a more comprehensive understanding of the subject and make a valuable contribution to the field.

20 | STUDY LIMITATIONS

Although the study was conducted with great care and thoroughness, there were certain limitations that prevented the data from reaching its full potential. One of the primary constraints was the size of the population.

The benchmarking process posed specific challenges. While many companies were contacted to participate in the research, it was difficult to find those who were willing to openly share their opinions and engage in honest discussions during the interviews. Therefore, the interviewees were not randomly selected but were chosen based on their willingness to participate in an open dialog where they could freely express their thoughts.

Some of the individuals contacted did not meet the research criteria, while others took longer than expected to respond, and some never responded at all. These factors limited the scope of the research and hindered the understanding of the start-up environment, which negatively impacted the ability to conduct a comprehensive analysis of the research. Although the results are still reliable, small sample sizes may not be representative of the population, indicating that further research may be necessary.

Another constraint was the limited availability of data. Obtaining information that was not directly available would have been unethical and would have compromised the reliability of the study. The use of secondary sources was also limited, as the interview did not always cover internal documents. Collecting additional relevant documents with the interviewees' consent could have further validated the results of this research, making it an important limitation.

ACKNOWLEDGMENTS

We declare that this manuscript is original and has not been published before. It is not currently being considered for publication elsewhere.

FUNDING INFORMATION

No financial support was received for this study.

CONFLICT OF INTEREST STATEMENT

There are no conflicts of interest to any other party, physical person, or legal entity.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ORCID

Ioannis Rizomyliotis  <https://orcid.org/0000-0002-3516-0050>

Francesco Paolone  <https://orcid.org/0000-0002-1728-5052>

REFERENCES

- Abdellah, I. M. (2016). *A grounded theory study of decision-making within informal work environments*. The University of Liverpool.
- Amshoff, B., Dülme, C., Echterfeld, J., & Gausemeier, J. (2015). Business model patterns for disruptive technologies. *International Journal of Innovation Management*, 19(3), 1–54.
- Arowoshegbe, A. O., Emmanuel, U., & Gina, A. (2016). Sustainability and triple bottom line: An overview of two interrelated concepts. *Igbinedion University Journal of Accounting*, 2(16), 88–126.
- Böttcher, T. P., Empelmann, S., Weking, J., Hein, A., & Krmar, H. (2023). Digital sustainable business models: Using digital technology to integrate ecological sustainability into the core of business models. *ISJ*, 34(3), 736–761. <https://doi.org/10.1111/isj.12436>
- Bellman, R., Clark, C. E., Malcolm, D. G., Craft, C. J., & Ricciardi, F. M. (1957). On the construction of a multi-stage, multi-person business game. *Operations Research*, 5(4), 469–503.
- 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. P., Schuit, C. S. C., & Kraaijenhagen, C. (2018). Experimenting with a circular business model: Lessons from eight cases. *Environmental Innovation and Societal Transitions*, 28, 79–95.
- Broman, G., & Robért, K. (2017). A framework for strategic sustainable development. *Journal of Cleaner Production*, 140, 17–31. <https://doi.org/10.1016/j.jclepro.2015.10.121>
- Brundtland, G. (1987). Report of the world commission on environment and development: Our common future. United Nations General Assembly document A/42/427. <https://www.sciepub.com/reference/92946>
- Caputo, A., Schiocchet, E., & Troise, C. (2023). Sustainable business models as successful drivers in equity crowdfunding. *Business Strategy and the Environment*, 31(7), 3509–3522.
- Carleton, T. (2010). *The value of vision in radical technological innovation*. Stanford University.
- Charmaz, K. (2014). Grounded theory in global perspective. *Qualitative Inquiry*, 20(9), 1074–1084. <https://doi.org/10.1177/1077800414545235>
- 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.
- Comin, L. C., Aguiar, C. C., Sehnem, S., Yusliza, M. Y., Cazella, C. F., & Julkovski, D. J. (2019). Sustainable business models: A literature review. *Benchmarking: An International Journal*, 27(7), 2028–2047. <https://doi.org/10.1108/bij-12-2018-0384>

- Cypress, B. S. (2017). Rigor or reliability and validity in qualitative research: Perspectives, strategies, reconceptualization, and recommendations. *Dimensions of Critical Care Nursing*, 36(4), 253–263.
- Davis, R., Campbell, R., Hildon, Z., Hobbs, L., & Michie, S. (2014). Theories of behaviour and behaviour change across the social and behavioural sciences: a scoping review. *Health Psychology Review*, 9(3), 323–344. <https://doi.org/10.1080/17437199.2014.941722>
- DeCarlo, M. (2018). *Scientific inquiry in social work*. Open Social Work Education.
- Duan, C. (2023). A state-of-the-art review of sharing economy business models and a forecast of future research directions for sustainable development: A bibliometric analysis approach. *Sustainability*, 15(5), 4568. <https://doi.org/10.3390/su15054568>
- Dudovskiy, J. (2018). The ultimate guide to writing a dissertation in business studies: A step-by-step assistance. <https://research-methodology.net/about-us/ebook>
- Dudovskiy, J. (2018). Implications of individual resistance to change. *Research Methodology*.
- Easterby-Smith, M., Jaspersen, L. J., Thorpe, R., & Valizade, D. (2018). *Management and business research*. Sage.
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25–32.
- Elkington, J. (1994). Towards the sustainable corporation win-win business strategies for sustainable development. *California Management Review*, 36, 90–100.
- Gassmann, O., Frankenberger, K., & Csik, M. (2014). *The business model navigator: 55 models that will revolutionise your business*. Pearson.
- Glaser, B. (1978). *Theoretical sensitivity advances in the methodology of grounded theory*. Sociology Press. <https://www.scirp.org/reference/ReferencesPapers?ReferenceID=415464>
- Glaser, B. G., & Holton, J. (2004). Remodeling Grounded Theory. *Forum Qualitative Sozialforschung Forum: Qualitative Social Research*, 5(2). <https://doi.org/10.17169/fqs-5.2.607>
- Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory strategies for qualitative research*. CA Sociology Press. <https://www.scirp.org/reference/ReferencesPapers?referenceid=1873897>
- Glaser, B. G., Strauss, A. L., & Strutzel, E. (1968). The discovery of grounded theory; strategies for qualitative research. *Nursing Research*, 17(4), 364.
- Gren, K., Lotfalian, A., & Ahmadi, H. (2020). Applying a strategic sustainable development lens to supplier network collaboration (Dissertation). <https://urn.kb.se/resolve?urn=urn:nbn:se:bth-20022>
- Ibarra, D., Valenciano, A. M., & Igartua, J. I. (2023). Business model patterns: A systematic literature review. In *Lecture notes in management and industrial engineering* (pp. 281–289). https://doi.org/10.1007/978-3-031-29382-5_28
- Jamshed, S. (2014). Qualitative research method-interviewing and observation. *Journal of Basic and Clinical Pharmacy*, 5(4), 87–88.
- Jansen, J., & O'Ryan, E. (2020). *Learning under lockdown voices of South Africa's children*. CNA Holdings (Pty) Ltd. <https://scirp.org/reference/ReferencesPapers?referenceid=3199197>
- Johnson, M. W., Christensen, C. M., & Kagermann, H. (2008). Reinventing your business model. *Harvard Business Review*. <https://hbr.org/2008/12/reinventing-your-business-model>
- Laukkanen, M. (2019). *Sustainable business models for advancing system-level sustainability*. ResearchGate. <https://doi.org/10.13140/RG.2.2.27016.44804>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- López-Nicolás, C., Ruiz-Nicolás, J., & Mateo-Ortuño, E. (2021). Towards sustainable innovative business models. *Sustainability*, 13(11), 5804. <https://doi.org/10.3390/su13115804>
- Lüdeke-Freund, F. (2010). Towards a conceptual framework of 'business models for sustainability'. In R. Wever, J. Quist, A. Tukker, J. Woudstra, F. Boons, & N. Beute (Eds.), *Knowledge collaboration & learning for sustainable innovation* (pp. 25–29). Delft.
- Lüdeke-Freund, F., Bohnsack, R., Breuer, H., & Massa, L. (2018). Research on sustainable business model patterns: Status quo, methodological issues, and a research agenda. In *Palgrave studies in sustainable business in association with Future Earth* (pp. 25–60). Springer. https://doi.org/10.1007/978-3-319-93275-0_2
- 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.
- Marchese, D., Reynolds, E., Bates, M. E., Morgan, H., Clark, S. S., & Linkov, I. (2018). Resilience and sustainability: Similarities and differences in environmental management applications. *Science of the Total Environment*, 613, 1275–1283.
- Mason, J. (2002). *Qualitative researching*. Sage.
- Nickerson, C. (2022). Interpretivism paradigm & research philosophy. *Simply Sociology*. <https://simplysociology.com/interpretivism-paradigm.html>
- Novak, A. (2014). Business model literature overview. *Financial Reporting*, 22(2), 79–130.
- Opoku, D., Ayarkwa, J., & Agyekum, K. (2019). Barriers to environmental sustainability of construction projects. <https://www.semanticscholar.org/paper/Barriers-to-environmental-sustainability-of-Opoku-Ayarkwa/7d76c51efcc26277c46b2dba67e94c41ecf0d0ab>
- Osterwalder, A. (2004). The business model ontology a proposition in a design science approach. (Doctoral dissertation). Université de Lausanne, Faculté des hautes études commerciales.
- Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: A handbook for visionaries, game changers, and challengers* (Vol. 1). John Wiley & Sons.
- 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. <https://doi.org/10.1177/10860266231176913>
- Polit, D. E., & Beck, C. T. (2006). *Essentials of nursing research* (6th ed.). Lippincott Williams & Wilkins. <https://www.scirp.org/reference/ReferencesPapers?referenceid=1895027>
- Ponelis, S. R. (2015). Using interpretive qualitative case studies for exploratory research in doctoral studies: A case of information systems research in small and medium enterprises. *International Journal of Doctoral Studies*, 10(3), 1–16.
- Porter, M. E. (1996). What is strategy? *Harvard Business Review*. https://www.uniba.it/it/docenti/somma-ernesto/whatisstrategy_porter_96.pdf
- Porter, M. E., & Kramer, M. R. (2011). Creating shared value: Redefining capitalism and the role of the corporation in society. *Harvard Business Review*, 89(1/2), 62–77.
- Qureshi, H. A., & Ünlü, Z. (2020). Beyond the paradigm conflicts: A four-step coding instrument for grounded theory. *International Journal of Qualitative Methods*, 19, 16–48.
- Ramallo, R., Adams, P., Huggard, P., & Hoare, K. (2015). Literature review and constructivist grounded theory methodology. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*, 16(3), Art. 19.
- Ramdani, B., Binsaf, A., & Boukrami, E. (2019). Business model innovation: A review and research agenda. *New England Journal of Entrepreneurship*, 22(2), 89–108. <https://doi.org/10.1108/neje-06-2019-0030>
- Remane, G., Hanelt, A., Tesch, J. F., & Kolbe, L. M. (2016). The business model pattern database—A tool for systematic business model innovation. *International Journal of Innovation Management*, 21(1), 1–37.

- Richards, L. (2005). *Handling qualitative data: A practical guide*. Sage Publications, Inc.
- Rizos, V., Behrens, A., Van Der Gaast, W., Hofman, E., Ιωάννου, Α., Kafyeke, T., Flamos, A., Rinaldi, R., Papadelis, S., Hirschnitz-Garbers, M., & Topi, C. (2016). Implementation of circular economy business models by small and medium-sized enterprises (SMES): Barriers and enablers. *Sustainability*, 8(11), 1212. <https://doi.org/10.3390/su8111212>
- Robinson, M., & Lock, S. (2016). An introduction to the business model canvas. *Culturehive*. <https://www.culturehive.co.uk/wp-content/uploads/2016/01/Introducing-the-Business-Model-Canvas.pdf>
- Saunders, M., Lewis, A., & Thornhill, A. (2018). *Research methods for business students*. Pearson.
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business students* (6th ed.). Always learning. Pearson.
- Schaltegger, S., Hansen, E. G., & Lüdeke-Freund, F. (2016). Business models for sustainability: Origins, present research, and future avenues. *Organization and Environment*, 29(1), 3–10. <https://www.jstor.org/stable/26164751>
- Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. (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.
- Shafer, S. M., Smith, H. J., & Linder, J. C. (2005). The power of business models. *Business Horizons*, 48(3), 199–207.
- Sinkovics, N., Gunaratne, D., Sinkovics, R. R., & Molina-Castillo, F. J. (2021). Sustainable business model innovation: An umbrella review. *Sustainability*, 13(13), 7266.
- Smith, A. K., Ayanian, J. Z., Covinsky, K. E., Landon, B. E., McCarthy, E. P., Wee, C. C., & Steinman, M. A. (2011). Conducting high-value secondary dataset analysis: An introductory guide and resources. *Journal of General Internal Medicine*, 26(8), 920–929.
- Spangenberg, J. H. (2005). Economic sustainability of the economy: Concepts and indicators. *International Journal of Sustainable Development*, 8(1–2), 47–64.
- THE 17 GOALS | Sustainable Development. (n.d.). <https://sdgs.un.org/goals>
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27(2), 237–246. <https://doi.org/10.1177/1098214005283748>
- Tie, Y., Birks, M., & Francis, K. (2019). *Grounded theory research: A design framework for novice researchers*. Sage. <https://doi.org/10.1177/2050312118822927>
- Van Hoof, B., & Thiell, M. (2014). Collaboration capacity for sustainable supply chain management: Small and medium-sized enterprises in Mexico. *Journal of Cleaner Production*, 67, 239–248.
- Vithessonthi, C. (2009). Corporate ecological sustainability strategy decisions: The role of attitude towards sustainable development. *Journal of Organisational Transformation & Social Change*, 6(1), 49–64.
- Widodo, H. P. (2014). Methodological considerations in interview data transcription. *International Journal of Innovation in English Language Teaching and Research*, 3(1), 101–107.
- Williams, M., & Moser, T. (2019). The art of coding and thematic exploration in qualitative research. *International Management Review*, 15(1), 45–55.
- Yip, G. S. (2004). Using strategy to change your business model. *Business Strategy Review*, 15(2), 17–24.
- Zott, C., Amit, R., & Massa, L. (2011). The business model: Recent developments and future research. *Journal of Management*, 37(4), 1019–1042.

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: 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*, 00, 1–15. <https://doi.org/10.1111/beer.12681>