

# Article A Systematic Literature Review on the Transition to Circular Business Models for Small and Medium-Sized Enterprises (SMEs)

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**Abstract:** The transition of a business to a circular business model (CBM) calls for significant and ongoing shifts in different business management models and strategies. However, there is a lack of research focused on the technological, financial, societal, and institutional influences on the CBM transition in small and/or medium-sized enterprises (SMEs). To address this gap, our study develops a theoretical framework for the transition towards CBM. We conducted a systematic literature review with the objective of determining the relationships among technological, financial, societal, and institutional influences for CBMs. Following this, we then established a conceptual framework that comprises these four key influences for a transition plan in the context of an innovative business model with a focus on the value proposition, value creation, and value delivery. An illustrative case example of the manufacturing industry for the transition plan to CBM was presented as well. The proposed framework is designed to lead the shift towards circular economy-oriented business models that aim to promote sustainability in business. In addition, we uncovered several potential avenues for further investigation. We expect the framework towards both contribute to the expansion of the existing body of research in the field and provide business practitioners with guidelines on the CBMs' transition for SMEs.

Keywords: circular economy; circular business models; business model innovation

# 1. Introduction

To achieve sustainability, a fundamentally new model of societal organiation is required. The business model should diverge from the notion that rising prosperity is inherently linked to ever-increasing resource use and consumption. The notion of the circular economy proposes a business strategy that strives to go beyond incremental efficiency gains to bring about a societal revolution [1,2]. The circular economy is regarded as a novel way to conceptualise the integration of environmental sustainability and economic activity for resource use and consumption control [3,4].

A working definition of a circular economy is an industrial system that is designed to be restorative or regenerative [1,5,6]. It replaces the paradigm of end-of-life with restoration, shifts towards the use of renewable energy, eliminates the use of hazardous chemical elements that impede reuse, and attempts to reduce waste via the improved design of materials, products, systems, and business models [7–9].

The rise of prosperity in society prompts the need for restorative and regenerative designs as well as more sustainable production methods, such as the utilisation of renewable energy and the elimination of hazardous substances that might be harmful to humans or the environment [10–12]. In addition, the ESG (environment, social, and governance) concept places emphasis on three key bases of stakeholder-business relationships, i.e., environmental, social, and governance aspects. It broadens the traditional scope and range of corporate performance evaluation and offers a promising route for enterprises to



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**Copyright:** © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). acquire external capital and move towards sustainable growth [13]. However, the development of a circular economy also reinforces the necessity for enterprises to incorporate the end-of-life paradigm initially into their business strategies to establish a restorative and regenerative industrial system [14,15]. According to the studies in [14,15], the move from a linear economy to a circular economy is primarily influenced by two viewpoints. The first is that the transition may be amplified or slowed considerably, depending on the legislation and policy mechanisms used by government institutions. Secondly, the transition is intrinsically tied to enterprises that incorporate circularity into their business models to create a healthy economy that satisfies demand within environmental constraints [14,16,17].

Even though over 90% of enterprises in many nations are classified as small and/or medium-sized enterprises (SMEs), their contribution to a circular economy and a sustainable future has received little attention to date [18-20]. Small businesses may be more embedded in their local communities and have a closer relationship with their customers, which can create opportunities for collaboration and co-creation of circular solutions, despite large corporations having substantial resources to implement them. Additionally, SMEs may use their adaptability and nimbleness to experiment with new business models and collaborations that enable them to generate value in novel ways. As a result, the emphasis of this research is on developing entrepreneurial insights and business strategies on circular business models (CBM) for SMEs to fill this gap in the current literature. Many SMEs are entrepreneurs who recognise opportunities, develop new businesses, and innovate inside current organisations. Specifically, entrepreneurship may take different forms, ranging from a small enterprise to a technology startup, and can occur in any industry sector. They can then use the CBMs as a strategic opportunity to differentiate themselves from the competition [4,9,20,21]. In many nations, SMEs are viewed as growth labs for innovation and product development, which are crucial for the transition [22,23]. For example, SMEs are more likely to adopt a business model quickly since their corporate structures, processes, and policies tend to be less rigid than those of larger corporations, which might delay the process of adopting a business model in the transition to CBMs. According to some research studies [2,13,24], the contribution of SMEs to business circularity and innovation extends beyond the national economy since they take advantage of market liberalisation, rely on multiple upstream and downstream suppliers, profit from trade integration, and can operate in the global market.

Transitioning to a CBM, which is required to address environmental and social concerns, poses complex hurdles for SMEs in the face of low margins and pressures to maintain their overall performance and profitability [13,23,24]. In addition, existing CBM research is quite limited, which hinders the application of circular economy techniques to small businesses [2,22,23]. Nonetheless, despite the extensive literature on CBM related business management, including physical and statistical evidence, systems and techniques, technology utilisation, and policies for business model innovation [25–29], little attention has been paid to the role of entrepreneurs in transitioning from a linear economy (LE) model to a CBM. To pave a new path in the existing literature, this study presents a systematic literature review by addressing the following research questions:

- (1) What is the current extent of understanding about the transition of SMEs from the LE model to CBM?
- (2) What are the key factors that influence this transition?
- (3) What kind of new business models can assist the transition to a circular economy?

Following the introduction, this article is organised into sections that include the background, the research methodology, the findings, and the discussion and conclusions. This research highlights the important insights associated with transitioning from the LE model to CBM for SMEs. However, because the existing literature linking CBMs and SMEs remains limited, the literature on business innovation and entrepreneurial opportunities is reviewed concurrently to broaden the scope of research and provide a better understanding of how entrepreneurs for SMEs can move towards CBM. In short, a conceptual framework to explore the transition to a CBM for SMEs is provided in this study.

## 2. Background and Literature Review

In a competitive environment, entrepreneurs attempt to work on the successful transition from LE models to CBMs, as shown in Figure 1, for both environmental and economic advantages [27,30,31]. By creating innovative products, advanced technology, and/or profitable business models, they may realise a considerable advantage from going circular and reap economic rewards [4,32]. In Refs. [26,33], the researchers emphasise the need to understand the necessity for governmental and entrepreneurial core components and their interdependence and collaboration to make the transition to a CBM. Transitioning to a CBM necessitates accelerating the integration of bottom-up (enterprise level) and top-down (governmental) actions that could rely heavily on technological, financial, societal, and institutional influences. The widespread fear that businesses will fail to address current sustainability issues, such as resource depletion, industrial pollution, and rising CO<sub>2</sub> emissions, must be remedied by an approach in which businesses proactively and urgently drive the transition to a CBM based on the principles of reuse, recycling, and the utilisation of alternative business models [6,34]. Therefore, nations across the world have developed a government-wide plan for a circular economy to contribute to an environment in which businesses and governments collaborate to integrate circular economy goals into all aspects of society [6,24,33,35].





SMEs need to start by selecting certain circular business initiatives that are compatible with their operations and resources. For example, they must concentrate on the areas in which they have the most potential to make a difference, such as the elimination of waste, the optimisation of resource use, or the development of new products. Business circularity for SMEs results from successful business model innovation and implementation [27,35–37]. This requires seeking opportunities and assessing current advances and potential gains in all aspects of sustainability. According to Rosa et al. [5], business circularity as a concept that combines economic advantages and sustainability was introduced over a decade ago. The concept promotes efficient resource utilisation by decreasing the rate of material induction and energy flow in manufacturing. Chen et al. [38] propose that circularity necessitates modifications to the inherent characteristics of the conventional business model by analysing its actual financial and operational performance. In addition to altering their nature to recognise value, enterprises must migrate from enterprise-centric to networkcentric by integrating with other stakeholders [10,16,17]. Some research studies (e.g., [35,39]) argue that for enterprises to change, fundamental rethinking is required, including value generation through decoupling enterprise growth and resource use. Huvnh [23] uses a modern business model based on the LE concept as a starting point to explain the rethinking necessary for future development. Many studies (e.g., [10,20,40]) point out that the LE is driven by the acquisition, consumption, manufacture, and disposal of raw materials after product use. Moreover, the product is discarded after usage without any of its components being reused as raw materials. Such an approach is no longer viable. In fact, there is an urgent need for a CBM based on innovation, yet there is no agreed-upon scope for it in the extant literature [25,36]. The perspectives of some scholars on business circularity and innovation are listed in Table 1. They are similar in spirit, with a focus on conservation of resources and value creation.

The LE model led to linear consumption patterns and disposable items in most of the world [15,19,41]. Now, because of the expanding population and the associated increase in consumer demand, all stakeholders and enterprises must employ sustainable practises to reduce environmental stress and respond urgently to the global existential crisis facing us. In a similar vein, Shao et al. [42] assert that businesses require a paradigm shift by "completing the loop" and recycling components as raw materials to manufacture new goods. According to the study of Gusmerotti et al. [19], CBMs can reduce the long-term downsides of linear manufacturing while also enhancing sustainability. Redesigning business models is not a simple operation because enterprises throughout the world and their supply chains are built on the same LE model [43–45].

Table 1. Business model innovation for the circular economy.

Importance of Business Circularity and Innovation	Reference
CBM underpins how a company develops, distributes, and collects value inside closed material loops.	Aamer et al. (2022) [30]
The CBM is an alternative and creative technique for minimising waste and maximising operational efficiency to remain competitive.	Bocken et al. (2022) [46]
CBM aims to establish a sustainable and regenerative economy in which resources are saved and economic growth may be sustained throughout time.	Puglieri et al. (2022) [34]
The CBM is beneficial when applied to all natural resources. Using eco-design, reuse, refurbishment, remanufacturing, and recycling, CBM in an industrial context saves waste and decreases resource consumption in addition to conserving resources.	Ferasso et al. (2020) [7]
A business model with circular characteristics indicates the creation of value through the exploitation of the value remaining in old and used items to produce new offerings. The CBM changes from a single transaction between actors to several transactions in cycles with closed loops.	Dragomir et al. (2022) [13]
The CBM is a strategy for focusing production systems that reduces the rate at which resources are extracted as well as the waste and emissions that are produced as a result. This is accomplished by closing the loop to increase resource value over a greater span of time by relying on design, innovation, and knowledge at any scale.	Shao et al. (2020) [42]

In addition, the CBM supported by entrepreneurs should improve social and economic performance, along with environmental performance, through the application of innovative business strategies. The scope of CBM should also include upstream and downstream supply chain partners. To understand these various perspectives better, we have explored important influences for CBMs according to the relevant scholarly literature review articles on entrepreneurial viewpoints, as discussed in the following sections. In fact, entrepreneurs have different perspectives on the influences of CBM in relation to transition planning [19,25,26,28,47].

#### 3. Research Methodology

To understand the innovative CBM scholarly literature from an entrepreneurial perspective, an in-depth, systematic review of relevant and available academic publications published between 2018 and 2022 was conducted. This time period was significant for many developments in business circularity and business model innovation for SMEs. Although the literature on CBM is still in its relative infancy, the notion of sustainability, from which business circularity principles (i.e., known as circular economy principles) are derived, dates to the 2000s. Similarly, a systematic review methodology was chosen due to its capacity to characterise existing research to uncover or support developing patterns. According to Wasserbaur et al. [14], this method of reviewing the literature is the most effective way to examine voluminous material in pursuit of high-quality results. Numerous research scholars [4,7,14,18,28] have effectively utilised this method of data collection to synthesise study findings on related topics based on pre-set selection criteria.

In our study, we adopted a five-step process for conducting a comprehensive literature review, as illustrated in Figure 2. This method comprises the framing of question(s), the identification and location of relevant research, the selection and assessment of research studies, analysis or synthesis, and the reporting of outcomes and analyses as suggested by Transfield's methodology [48]. This method is noteworthy for its rigour and application in past research to promote easy replication, focus on understanding any related research issues utilising current studies, and description of the known and unknown outcomes [2,4,5,28].



Figure 2. Research process of the systematic literature review.

# 3.1. Selection Process

More specifically, the purpose of our study is to identify the most recent developments and trends in CBM and entrepreneurial perspectives on SMEs in the extant literature. The most popular bibliographic databases are Web of Science (WoS) and Scopus. Since we found considerable duplication between them, we decided to limit our search to the Scopus database only and compile a summary of 58 publications that are relevant to our study. Figure 3 shows the steps that were employed for evaluating and selecting peer-reviewed journal articles. All notable publications were examined for articles with "Circular Economy", "Circular Business Models", "Entrepreneurs", "Barriers", "Implementation", and "Small Businesses" in the title or abstract during the preliminary phase. An example query consists of the keyword combinations: "Circular Economy, Circular Practices, Circularity, Circular Business Model Innovation, and Circular Model". To include more current and recent scientific advancements, the evaluation period criteria were set for 2018–2022.

# 3.2. Study Overview

Only peer-reviewed journals from renowned publishers, such as "Springer, Emerald, Wiley Online, Taylor and Francis, Elsevier, and MDPI," were selected to preserve the research quality. The chosen journals have published many high-quality research articles on circular economics that cover models, methods, practises, and emerging trends in a variety of business studies, environmental science, engineering, chemistry, and economics disciplines. For the study, 58 papers from various publications were selected. Appropriate time was allotted for screening, filtering, and article selection to maintain rigour. The reviewed publications were chosen not merely by their quality but also based on the reliability of their results and their relevance to the current study. Subsequently, the most recently published literature review papers in the CBM domain were also re-examined as a reference for searching the Scopus database, which suggested that no one has examined the transition plan for SMEs towards CBMs. This is done to gain a better grasp of the existing body of literature.

#### 3.3. Taxonomy Analysis

To comprehend CBM better, researchers have devised the following categorisation system or taxonomy: journal name, publisher name, publication year, purpose of the study, study findings, and methods. It offers a structured approach for conducting a systematic review to provide present research findings, definitions, ideas, technical advances, and the most recent studies in the study domain. The distribution of articles over time (see Figure 4) underlines the growing interest in the field, notably during the past five years, as seen by the increasing number of publications in the areas of business circularity models and innovation for SMEs. "Management, Business Administration, Product-as-a-Service, Engineering, Management Science, Environmental Science, and Computer Science" are among the fields in which CBM is attracting the interest of scholars. The top 15 journals are listed in Table 2.



Figure 3. Steps employed in the selection process for reviewing relevant journals.



**Figure 4.** Distribution of articles per year (n = 58).

Journal Name	Qty
Journal of Cleaner Production	20
Business Strategy and the Environment	19
International Journal of Productivity and Performance Management	2
Journal of Business Research	2
Technological Forecasting and Social Change	2
Cleaner Logistics and Supply Chain	1
Corporate Governance (Bingley)	1
Cuadernos de Gestion	1
Industria Textila	1
International Journal of Production Economics	1
Journal of Entrepreneurship in Emerging Economies	1
Journal of Fashion Marketing and Management	1
Journal of Manufacturing Technology Management	1
Journal of Risk and Financial Management	1
Micro and Macro Marketing	1
Production Planning and Control	1
Sinergie	1
South Asian Journal of Business and Management Cases	1

**Table 2.** Periodical wise research article distribution (n = 58).

The taxonomy analysis outlines the study according to the employed approach. The methods are split into three major categories: literature review, qualitative analysis, and quantitative analysis. After applying inclusion and exclusion criteria based on the taxonomy, the articles included in our research are all based on major studies that employed qualitative methods. About 65% of the survey was based on qualitative research, while another 25% was evaluated using questionnaires and in other ways. The literature review articles contributed about 10%. This trend indicates that further research is necessary to understand the CBM phenomenon and provide a framework for using CBMs to enhance the sustainability and financial performance of SMEs.

#### 4. Results and Discussions

For SMEs, social, and ecological entrepreneurship and business circularity related activities have been popular in the discussion [15,17,34]. As noted above, we use the word cloud to understand the distribution of the frequently used key terms in the selected articles, as shown in Table 2, and summarise selected articles from the results of the content analysis, as shown in Table A1 (Appendix A). Four main influences contribute to the transition of the LE model to CBMs for SMEs: technological, financial, societal, and institutional. Several studies indicate that entrepreneurs may be motivated by a desire to have a positive societal or environmental effect in addition to maximising profits for their own SMEs [25,35,36]. The contextual elements, such as technological advancement, financial implications, information technology, and social/personal values, have led to the view that entrepreneurs aspire to provide value proposition, creation, and capture at different levels. The entrepreneurs' enterprise strategies strive to reconcile societal issues and environmental challenges with economic success, thus combining business and humanitarian motivations [32,36,37,41]. In other words, the motivation of SMEs for applying CBM is related to the development of economic value that concurrently supports social and/or environmental goals and thereby influences society and the environment [16,17].

The transition to a regenerative and distributive CBM is intrinsically linked to innovations that enable the development of new products, processes, and techniques that increase the capacity to reuse, remanufacture, and recycle resources as per business circularity principles [6,34,47]. Entrepreneurs such as SME leaders are regarded as innovators in that they contribute either revolutionary or incremental changes to existing goods, services, or manufacturing processes [28,40,49,50]. This drives a "creative destruction" process that results in fundamental economic changes and digitalisation, ultimately leading to improved employment, economic expansion, and prosperity. Several studies [4,25,27,31] offer different viewpoints on entrepreneurship, innovation, and economic growth by introducing the topic of entrepreneurial success and failure. After that, not all transitions from LE to CBMs for SMEs will succeed, and interventions undertaken by entrepreneurs may fail and not contribute to economic progress [6,45,51]. Moreover, it is impossible to forecast if an innovation will be successful despite the risks taken to make the transition.

An entrepreneur capitalises on market opportunities through technology and business model innovation. The shift to a CBM, fundamentally distinct from an LE model, requires technological, financial, institutional, and societal adjustments within businesses. Of course, not all enterprises using business circularity principles will necessarily be successful or produce fundamental economic change [7,20,26,35]. Yet, innovators who respond to market possibilities and situations that necessitate delivery of alternative goods, services, or processes according to CBM methods will get rewarded [10,26,47,52].

#### 4.1. Business Model Innovation and Circularity

Commitment from top management to transition towards a CBM is a common practise in many large corporations [26,33]. To achieve better performance, a comprehensive strategy is developed to outline the corporation's goals, priorities, and timelines for implementation. Furthermore, major corporations possess the capability to assign exclusive resources in an efficient manner, such as a specialised team or department, to spearhead the implementation of circular economy strategies [26,53]. For example, the team can devote its efforts to research and development, designing products, optimising a supply chain, and establishing partnerships with relevant stakeholders [24,26,28,33]. In addition, the product design and development strategies are reconsidered to guarantee durability, recyclability, and simplicity of repair. This can lead to potential avenues for implementing a product-as-service model, whereby consumers opt to lease or subscribe to products rather than acquire them outright [42,46].

For both Corporations and SMEs, a business model explains how an enterprise generates, delivers, and captures value. To understand better how business circularity works, according to research studies [3,7,54], a sustainable business model creates value from waste. This waste becomes a significant and useful raw resource for other production within the same enterprise. To create value, SMEs must take actions to build alliances to eliminate life cycle waste; this action can guide any enterprise to form an alliance with collaborators who have already developed the knowledge, and created logistics networks and technology [2,13,24]. They must gain the capacity to operate an efficient logistics system. According to Henry et al. [36], a CBM is viewed as a business model in which the conceptual logic for value creation is based on realising the economic value retained in products after their use in the production of new offerings. Additionally, it allows the SMEs to become more socially responsible, and the model's primary benefit is that it enables enterprises to develop a sustainable solution that reduces operational waste and delays [3,55]. Salvador et al. [9] conducted a literature study on the transition of CBMs and business innovation and implementation challenges. Some key characteristics of business circularity to be adapted by SMEs are that products are developed with an extended lifespan and enterprises provide excellent customer service to retain customers for a longer period [4,25,51,53]. As shown in the prior literature studies [1,22,37,56], these characteristics of business circularity can be directly or indirectly applied by SMEs as follows.

- circular supply [23,50], e.g., by promoting renewable energy and bio-based recyclable inputs,
- resource recovery [40,52,55], e.g., by focusing on the recovery of valuable resources from materials, by-products, or waste,
- product life-extension [11,12,37], e.g., by understanding the product lifecycles through repair, upgrade, and resale stages, as well as from innovative and durable product design,
- sharing platform [17,35,45], e.g., by emphasising the capability of linking product users with one another and encouraging shared usage, access, or ownership to boost efficiency and capitalise on product use synergies.

From a business model innovation perspective, the entrepreneurs attempt to utilise circularity business practises for economic growth and environmental resilience by offering products for multiple consumption cycles and reducing the quantity of resources used in the manufacturing process [32,42,51,57]. They enable customers to recycle outdated goods, minimise waste, and let businesses profit financially from increased accountability for multiple product life cycle practises [13,37,44]. As a result, business circularity allows customers to recycle outdated products and provides a product with many consumption cycles. SMEs can offer better direct support in terms of building customer relationships. The profit derived from this sort of activity is dependent on the participation of consumers and the effort of shareholders who engage with experience, skill, and awareness [37,44].

## 4.2. Transition to the CBMs for SMEs and Its Framework

From the literature review, we identified numerous factors that influence the transition from a LE model to a CBM, as shown in Table A1. Many researchers have emphasised the need for a transition to a fully CBM model for SMEs, e.g., [19,25,31,47]. Even though there is still a huge gap in practical recommendations for transitioning a business model from linear to circular and the discussions on CBMs are still fragmented and immature, the existing literature provides a few strategies and insights on the development of implementation strategies that could be deployed [1,2,19,25,35]. For example, adopting a stewardship role [1,37], formulating and offering a sustainable value proposition (thus embedding environmental, social, and economic aspects) [16,45,53], engaging in collaborative circular networks [7,10,42] and partnering with and developing suppliers, service suppliers, manufacturers, retailers, and customers in addition to understanding how to create value are all required for the implementation of circularity in business models [3,13,26].

In addition, we utilised the MAXQDA 20.3 software (http://www.maxqda.com/, accessed on 18 February 2023), which is commonly used in data mining and qualitative analysis applications to produce the word cloud shown in Figure 5. The abstracts of 58 articles were retrieved and analysed using MAXQDA, and the extracted frequently occurring terms were used to create the word cloud. The top 36 frequently used keywords were organised logically into four topics: technological, financial, societal, and institutional, as shown in Table 3. Some of the less relevant terms in the word cloud, or those whose meaning is already captured by another similar term, were not included in Table 3. Subsequently, we reviewed and selected some research papers that were published in 2022, particularly scientific literature, and case studies directly related to CBMs. Thus, a subset of the most insightful previous scholarly literature review articles and case studies was culled from the set of 58 articles and summarised in Table A1 in Appendix A for interested readers. Along with a short highlight of these articles, we show with checkmarks the emphasis that each research article places on the four different types of influences. We believe our study will add to business circularity research and be useful for managers, regulators, and academics.

The value propositions of SMEs are shifting from providing a physical product to delivering functionality through business model innovations. According to some research studies [25,26] to adopt an existing business model towards greater circularity, it is necessary to offer a clear value proposition. This value proposition should be supported by internal awareness and capacity to deliver the proposed value, align it with the strategy of the enterprise, communicate it to customers, and find ways to engage them in the process [23,25,43,49,52].

There are three key elements associated with business model innovation for SMEs that assist entrepreneurs in moving forward with their strategies. First, a business's value proposition describes the benefits it will provide to consumers and other stakeholders. Second, value creation and delivery refer to how value is created or co-created through the value network, such as resources, processes, infrastructure, and partnerships, and how it will be delivered to stakeholders including channels/mechanisms of communication, sales, and distribution. Third, value capture explains how a corporation retains and/or recovers

value, transforming it into results, typically referring to a revenue model. Based on the literature review and the word cloud, a framework for the incorporation of circularity and business model innovation as a transition plan for SMEs is developed, as illustrated in Figure 6. This transition plan focuses on the identified technological, financial, institutional, and societal influences, as well as their relationship to the enhancement of business model innovation in terms of value proposition, value creation, and value capture for SMEs. A more detailed discussion of each factor follows next.



Figure 5. Frequent key terms generated and word cloud for the abstracts of 58 scholarly articles.

Category	Key Terms Extracts from Word Cloud		
	digitalisation, technological, innovation, technology		
Technological	enablers, collaboration, remanufacturing,		
_	manufacturing, capability, production.		
Financial	finance, assets, transition, benefits, chain, data.		
	society, societal, consumers, relationships, organisation.		
Societal	awareness, communication, coordination, engagement,		
	community, market, culture.		
To attraction of	Ecosystems, governmental, regulations, efficiency, waste,		
Institutional	energy, environment, policymakers.		

Table 3. The 36 most frequently used key terms extracted for the word cloud.

## 4.2.1. Technological Influence

According to recent literature [6,18,34,37], the technological innovations most critical to develop are technologies for continuous resource optimisation and reuse. SMEs are hampered in their capacity to capitalise on circular business prospects due to a lack of access to adequate technologies, which prevents them from implementing CBMs [19,25,26]. A lack of advanced technology may be a signal of low levels of innovation among SMEs; however, it may also be an indication of insufficient access to financial resources to be able to cover the operating costs necessary for further innovations that result in enhanced technologies [18,30,55,58].



Figure 6. Business circularity and innovation framework for SMEs.

In an age of increasing digitalisation and manufacturing networking, a wide variety of CBMs for SMEs rely on digital technologies to maintain and restore the value of goods and materials that have been lost in the production and consumption systems. For example, many enterprises explore opportunities for developing new markets and satisfying new market demands. Some CBMs [3,5,9,23] of service providers, like Uber and Airbnb, are built on the idea of the sharing economy; yet, they could not have achieved their level of success without the assistance of digital technologies, such as real-time data, the internet of things, and digital platforms. By optimising material flows and enabling reverse material flows [20,42,51]; by integrating value chains through data collection and sharing [1,13,33]; and by improving traceability and transparency through the product timeline [5,49], digital innovations can enable business circularity both directly and indirectly [16,55].

The use of digital technology can change the inputs, procedures, and consequences of innovative endeavours [16,55]. For example, using real-time data and digital platforms, stakeholders in digital innovation systems can exchange novel ideas in a manner that is more open, collaborative, transparent, and expedient. The procedures for developing and managing innovations enabled by digital technology also require increased engagement from business partners and input from customers [3,51,58]. During the product development phases, digital technologies may be incorporated in a flexible manner to produce a wide range of product and service innovations with less complexity and less unpredictability [3,51,58]. Additionally, technological advancements make the results of innovations less pre-set, making it simpler to put them into action and modify them in an iterative cycle after they have been introduced to the market for the first time from an entrepreneurial perspective [27,36,53]. To make it realistic for SMEs, there are important insights into improving the technological elements. Firstly, SMEs can commence the process by assessing their current technological usage and pinpointing domains in need of enhancement. For example, within an operating environment, SMEs need to search for obsolete systems and operational inefficiencies that can be automated [23,43,49]. IT-enabled systems can provide SMEs with cost-effective solutions due to lower initial costs than procuring and maintaining physical infrastructure [18]. For example, the use of cloud-based software applications and virtual servers can reduce expenses and increase flexibility for SMEs' operations. In addition, by collaborating with other small businesses or industry counterparts to pool technology resources and expenses, collaborative endeavours have the potential to facilitate the

consolidation of resources, the allocation of investments towards communal technologies, and the attainment of more favourable agreements with technology suppliers [23,26,33].

## 4.2.2. Financial Influence

The transition of SMEs to a CBM depends heavily on the availability of financial resources [15,43,50,54]. It seeks to reduce the amount of waste produced and the adverse effects that it has on the surrounding environment while maximising the amount of time that resources are utilised. For example, a large financial commitment is required in research and development, management of supply chains, product design, and marketing. However, the financial influence, which is to some extent connected to the technological influence, is also frequently described as being the most significant for the adoption of a CBM in the academic literature [43,50,58]. Financial performance should be taken into consideration by SMEs when considering customer satisfaction. Entrepreneurs usually evaluate or assess their operations and businesses by the degree to which customers are content with the goods and services that are provided. Tracking customer satisfaction allows them to identify areas in which financial-related investment and adjustments are needed accordingly to improve the overall experience for the customers and thus realise more profits [30,31,38].

According to the research studies [15,43,50,54], switching to a CBM necessitates making significant financial expenditures in production methods to bring them up to business circularity requirements, even though the returns on these investments are unpredictable. The high initial expenses that are involved in switching to CBMs are relevant for SMEs, as they usually have fewer financial resources available to cover these expenditures than larger enterprises [30,31,38]. A key challenge that SMEs face in the implementation of CBMs is the combination of the need for a large initial investment and an uncertain financial performance [15,43]. For many SMEs, the current financial market favours short-term gains, which is detrimental to circular enterprise structures. It emphasises traditional accounting and reporting methods while ignoring initiatives to decrease environmental and social costs [50,54,58]. It is typically difficult to evaluate actual financial capital and performance due to the lack of adequate assessment metrics for SMEs from an entrepreneurial perspective. For example, the financial element of a SME is a critical issue. Firstly, they must establish a budget that is realistic and consistent with the business's objectives and constraints [40,50]. By tracking operational expenses scrupulously and reviewing the budget frequently, SMEs can identify areas where they can make cutbacks or reallocate funds. Secondly, in an operating environment, SMEs can consider identifying non-essential or excessive costs that should be reduced or eliminated. To make it possible, SME must look for ways to negotiate better rates with vendors or find alternative suppliers for building strong partnerships. They should also explore arrangements for resource sharing and collaborative purchasing with other small businesses to lower their costs [28,30,51].

# 4.2.3. Institutional Influence

The effects of institutionalisation are classified into two separate elements [7,28,35–37]. First, environmental law has the power to impose limitations on the manufacturing process, such as the use of chemicals, the management of waste, the transportation of goods, and/or the availability of recycling options. However, it may be challenging to implement the modifications that are necessary to comply with the restrictions due to the fact that regulated laws do not permit all possible alternative manufacturing methods or recycling processes [5,28,42,51]. Further, the second element of institutional influence acts as an accelerator that enhances the transition to a CBM by providing subsidies to enterprises that implement CBMs or by having taxation policies in place that reinforce noncompliance with sustainability [31,52,54]. These measures are taken to speed up the process of shifting to a CBM. Without stringent oversight, these regulations are rendered meaningless, making it more difficult for prospective business owners to enter an established market, such as one in which maximising profits is the primary objective. In either case, the institutional

framework acts as a boundary-setter for the environment in which businesses function, as discussed by some studies [7,31,41,58]. Enterprises that seek to transition to a CBM but are hindered in their efforts by legislation and bureaucracy may find it difficult to do so due to the institutional framework, which may lead them to continue to use their "non-circular" processes. Although there is no formal legal framework addressing the fundamental nature of a circular economy, environmental sustainability is a critical concern that necessitates a comprehensive legislative framework to prioritise environmental preservation and conservation. Several nations have enacted national environmental protection legislation, such as the United States Clean Air Act and the European Union Environmental Liability Directive. The purpose of these laws is to control emissions, pollutants, and waste disposal and to establish environmental quality standards [56,59].

Even if the government can incorporate business circularity principles into its policies, Wasserbaur et al. [14] address the focus of the government's capacity to implement rigorous restrictions to encourage the use of CBMs due to their limited effect on market processes. Governments also depend on enterprises to create employment in their respective administrative areas and on the taxation of products and enterprises to support government expenditures (not necessarily applicable at all administrative levels). Burmaoglu et al. [49] also mention the ability of governments to drive entrepreneurs to adopt CBMs. The imposition of these stringent laws and regulations might result in businesses migrating to regions where they are not enforced, thereby decreasing tax revenues and economic activity in the region they migrate out of. Other authors note that it would be desirable for the government to establish several laws to incentivise enterprises to act on business circularity principles [14,23,26,49]. For example, government measures should consider offering financial or technical aid to enterprises that are prepared to adopt a CBM to retain SMEs in a certain area. In this regard, as found in existing literature [5,25,40,49,50], government intervention can favourably affect the transition from LE models to a CBMs for SMEs.

To make it possible for SMEs to adapt CBMs, there are several important insights. First, SMEs ought to prioritise customer service and complaints by imparting training to their employees to comprehend the requirements of customers, offering tailored assistance, and promptly resolving any customer concerns, as reported by some research studies [37,44]. The development of customer feedback mechanisms as a means of gathering insights can enhance customer experience with circular products and services. Second, SMEs may be able to utilise technology by optimising organisational procedures [12,33]. The deployment of software solutions is essential for various organisational functions, including customer relationship management, accounting, and supply chain management [13,24]. Typically, a cloud computing solution that has low implementation costs, may be suitable. The integration of automated processes via cloud systems can also significantly reduce the burden of repetitive tasks, thereby enabling individuals to focus on more strategic activities [35,46,49]. In short, SMEs need to rethink their strategy to foster innovation and creativity in circular business practises by providing opportunities to cultivate a culture that nurtures novel ideas and experimentation.

#### 4.2.4. Societal Influence

Societal factors can make the transition to CBM more difficult to accomplish, for example, if there is insufficient incentive for business owners and entrepreneurs to use a CBM and insufficient societal demand for goods produced according to business circularity principles. Increasing societal demand plays a large role in the adoption of CBM. Naturally, if there is little demand for their products and services, prospective business owners or entrepreneurs are not likely to engage in ventures that require a significant initial financial outlay. In addition, there is no need to utilise a CBM if societal acceptance of the entrepreneur's existing non-business circularity approaches exists. In other words, increasing consumer knowledge of business circularity principles and demand for circular products is a key component in the transition from LE to CBM.

In the extant literature, some scholars [42,51] emphasise that a proper labelling system for foods, non-foods, and services helps customers differentiate "circular items" from "noncircular" ones. Some scholars (e.g., [23,26,33,35]) argue that collaborative consumption models are essential for the transition to the CBM. A model in which individuals share the use or function of a service and/or product is one that may be classified as a collaborative consumption model. Such models have a smaller environmental footprint [30,44]. This type of model is also frequently referred to as the sharing economy [35,45]. However, it is important to recognise that the loss of ownership from collaborative consumption models is a concern for some consumers and a key factor that impedes the transition to CBMs. This is one reason why collaborative consumption models have not been widely adopted [9,32,41,45]. It is still challenging to understand consumer behaviour with regards to circular products and services [23,28,42,52]. Despite this, business owners or entrepreneurs play a significant role in increasing customer demand by creating circular goods that are in accordance with consumer preferences regarding quality, affordability, availability, and other factors. It is expected that over time customers may be able to participate in the CBM when they begin to increasingly demand products made in a circular supply chain [3,7,37,40].

In fact, the societal influence is not limited just to the need of society for circular products; rather, it relates to the larger framework in which the entrepreneur operates and, as a result, to supplier interactions. According to various research studies (e.g., [2,13,24,30]), for small businesses to become fully circular, the participation of their suppliers in the implementation of business circularity principles is essential. SMEs adopt business circularity, which is required to create all the required resources and inputs within the enterprise. In addition, the development of a network of enterprises that jointly act upon the business circularity principles underscores the need for using a systems-thinking approach while analysing the transition to a CBM [19,25,26,28]. To assume that a small business must be responsible for all aspects of the manufacturing process to qualify as a circular corporation is intrinsically incompatible with this idea. Thus, the participation of several businesses in the supply chain is a must [23,50]. However, the behaviour of consumers continues to be a key factor in the ability of businesses to function as part of a network of circular enterprises and create value jointly in accordance with CBMs.

SMEs may, for instance, participate in community initiatives, fundraisers, or volunteer programmes that accord with their core values. This can make it simpler for them to form partnerships with local non-profits and social-cause-focused organisations. Another important insight is that, whenever practicable, SMEs should prioritise supporting local businesses and suppliers [42,46,52]. For example, collaboration with other small businesses helps establish mutually beneficial partnerships and joint marketing initiatives for launching circular products and services. These partnerships can contribute to the development and sustainability of the local economy [24,26]. In addition, SMEs should share their societal initiatives and progress with their consumers, employees, and community. Utilising their website, social media platforms, and other channels of communication may be able to demonstrate their dedication to societal advancement, which is the key differentiator [19,41,55]. Transparency and accountability will aid in building loyalty and confidence. For any successful CBM transition for SMEs, customers, employees, suppliers, and community members must get involved to better comprehend the raised concerns and aspirations. In sum, SMEs can solicit valuable input on societal initiatives and incorporate them into the decision-making procedure.

## 4.3. An Example of Transition Plan to a CBM and Its Application in Carpet Industry

A carpet manufacturing enterprise is situated in the United States. In the late 2000s, this SME became aware of the environmental effects of the carpet industry and decided to implement a business strategy that could cut waste and conserve resources. This resulted in the establishment of the enterprise's zero-emission strategy, which is related to the transition to a CBM. To execute this important strategy, the enterprise needs to

have an appropriate transition plan, as illustrated in Figure 6, to address four main goals, e.g., how to minimise waste, reduce energy use, eliminate greenhouse gas emissions from manufacturing processes, and increase the use of renewable materials. To accomplish the enterprise's mission of zero emissions, it has developed a variety of creative initiatives centred on technological influence. For example, the business has devised a method for recycling old carpet tiles, thus allowing them to be repurposed as raw materials in the creation of new items. This procedure has helped to decrease waste and save resources by creating a closed-loop manufacturing method, which implies that all trash generated during production is utilised or repurposed.

Regarding financial influence, the enterprise has made significant investments in the development of alternative energy sources. The energy needs of the business are met in significant part by renewable solar systems that have been installed on the roofs of the factory's buildings. Additionally, in its buildings, energy-efficient lighting and heating and cooling systems were installed, which has contributed to a reduction in the amount of energy consumed. Their efforts to strengthen institutional influences, such as governmental rules and regulations, have had a significant influence on environmental performance. Since then, the enterprise has reduced the quantity of waste sent to landfills, its greenhouse gas emissions, and its energy use. Additionally, their initiatives have also had a positive impact on the enterprise's bottom line. The mission zero strategy and initiatives have contributed to the enhancement of its brand name and the attraction of customers interested in sustainable products, which is referred to as social influence.

This enterprise is a notable example of a business that has incorporated the transition plan for CBM. It has achieved considerable environmental and economic benefits by cutting waste, decreasing energy use, and boosting the usage of renewable resources. As more businesses adopt the ideas of the CBMs, a transition towards a more sustainable and prosperous future is anticipated.

#### 4.4. Managerial Implications

The conceptual framework indicates that technological and financial influences make up an important portion of the elements and, as a result, highlights the interdependence between both societal and institutional influences as well as the significance of addressing all of these for a successful move towards a CBM from an entrepreneurial point of view. Moreover, it places emphasis on leveraging societal and institutional influences to benefit from resilient human capital, relational capital, structural capital, and customer connections. This, in turn, influences how businesses and brands respond to the transitional challenges that arise. The value of all assets, including human resources, is protected.

In the existing literature, we also observed that there is no threshold that specifies the degree of product circularity that is required or considered adequate for a circular economy. A product's or material's circularity may be measured along a continuum spanning from "fully linear" (i.e., take-make-dispose) to "fully circular" (i.e., a closed loop where all resources are reused or recycled). A product's circularity is contingent on several criteria, including its design, material composition, durability, recyclability, and end-of-life management. In general, products with higher circularity ratings are intended for reuse, repair, and recycling, use renewable or recycled materials, and reduce waste and pollution throughout their life cycle, as mentioned in many studies [5,28,40,42,57] The extent of product circularity that is required or desired varies based on factors such as the industry, product category, market demand, and environmental effect. In certain situations, achieving a fully circular solution may not be possible or practical, but even incremental improvements may have a substantial influence on minimising waste and depletion of resources. Instead of concentrating on a certain threshold, it is essential to prioritise and maximise circularity across the whole value chain, from the procurement of raw materials through the management of end-of-life products [2,13,24]. This requires considerable cooperation across stakeholders, including product designers, manufacturers, recyclers, legislators, and consumers, to discover and execute the most effective circular solutions that correspond with their aims and beliefs.

A CBM's deployment can be seen to improve the standing of a SME, particularly with customers who appreciate environmental stewardship and can gain from technological, financial, societal, and institutional advantages. Thus, it is possible that a greater number of customers will keep using the products and services continuously and recommend them to others as well. Given the range of products and services they may offer, SMEs are in a strong position to break into new markets that prioritise sustainability responsibility and the development of long-term, sustainable business models [5,36]. It is possible that putting this strategy into action would also result in business growth and the establishment of new avenues for revenue creation. To convince SMEs to embrace environmentally friendly business practises, governments are enacting environmental rules and passing new laws [5,14]. In most cases, the implementation of a CBM enables SMEs to protect themselves from the possibility of incurring financial penalties as well as other types of legal concerns.

# 4.5. Practical and Theoretical Implications

The findings of the article have the potential to aid in the management of businesses operating in a wide range of sectors by assisting with the implementation of business circularity practises and overcoming the challenges associated with CBM transitions that are encountered at all stages of the production and consumption of materials and energy. This study also emphasises and summarises the challenges that businesses face when seeking to develop CBM strategies for SMEs that are consistent with the insights of entrepreneurs. A conceptual framework is developed to provide guidelines for management to assist with the prioritisation of CBM strategies and actions required to overcome the transition and support the CBMs through performance evaluation for SMEs.

In terms of practical implications for SMEs, it often involves collaboration and creativity across multiple stakeholders, including enterprises, governments, and consumers that manage waste [6,26]. It will take a concerted effort from business partners to redesign products, develop new technologies, set up an infrastructure for recycling, and implement policies that are helpful. This shift towards collaboration and creativity has the potential to cultivate new corporate ecosystems and linkages. In fact, the circular economy presents a challenge to the traditional, linear method of value creation. Instead, it places an emphasis on the entirety of a product's or service's life cycle to maximise its value over the long term. This involves taking into consideration aspects such as durability, repairability, and material recovery, all of which have the potential to result in a business model that is more robust and sustainable.

In terms of the theoretical implications, the circular model for SMEs places an emphasis on making effective use of resources, reducing waste, and minimising the environmental footprint [43,47]. This can result in cost savings by lowering their consumption of materials and energy, reducing their waste output, and improving their resource management. SMEs have the potential to make significant contributions towards a more sustainable future by embracing circular practises. For enhancing their businesses, adopting a CBM model is one way to encourage creativity within the areas of expertise for SMEs, which can help them improve their ability to innovate and differentiate themselves in the market. It inspires original ways of thinking as well as the production of novel products, services, and forms of enterprise.

## 5. Conclusions

The purpose of this research was to conduct a systematic literature review of the most recent advancements in the transition from a LE to a CBM. To do this, we conducted an extensive Scopus database search of pertinent publications published in reputable peer-reviewed journals. The research has a total of 58 articles, which have been arranged and classified systematically for our CBM study. Conceptual articles have seen a rise

in publication over the course of the past five years (2018–2022). A significant number of businesses, especially SMEs, are moving in the direction of CBM to improve their sustainability performance and better serve the numerous stakeholders linked to the business. Recent developments, on the other hand, seem to indicate that researchers worldwide are currently concentrating their efforts on evaluating the intended framework based on the preliminary work that is accessible in the literature. For example, qualitative and quantitative studies provide accurate insight into several elements that complement and aid in the transition of CBMs for SMEs. In addition, the present analysis also identifies a transition plan in terms of technological, financial, societal, and institutional influences.

Since the topic is developing as a direct result of newly emerging digital technologies, numerous opportunities for managers, regulators, and subject specialists lie on the horizon. The findings of the study will likely motivate the development of other transition plans from LE to CBMs in SME sectors. A case example was presented to illustrate the alignment of technological, financial, societal, and institutional influences. In addition, researchers would also be able to design new studies to set a clear direction for business model innovation in an entrepreneurial context. Following are some of the important findings based on our systematic literature review:

- Industries that currently recycle discarded components as raw materials tend to implement a CBM relatively more quickly than other industries. Nevertheless, the CBM must be implemented with the participation of all the stakeholders, particularly the customers, because the loop cannot be closed without them.
- The current study is distinct in that it maintains a holistic approach to the topic at hand and presents the most recent developments. As a result, it provides business practitioners with a more comprehensive understanding of CBM and its practises in an entrepreneurial setting.
- To enable the shift towards CBM, SMEs may participate in community initiatives, fundraisers, or volunteer programmes that accord with their core values. This can make it simpler for them to establish partnerships with local non-profits and social-cause-focused organisations and then prioritise supporting local businesses and suppliers. For example, collaboration with other small businesses helps establish mutually beneficial partnerships and collaborative marketing initiatives for circular products and services. These partnerships can contribute to the development and sustainability of the local economy. In addition, SMEs should constantly share their societal initiatives and progress with their consumers, employees, and community, such as by utilising the website, social media platforms, and other channels of communication to demonstrate their dedication to societal advancement, which is the essential differentiator. Further, management can focus on societal development, since the involvement of other managers and players across the supply chain will potentially help generate new ideas for circularity, processes, opportunities, and activities.
- There is no threshold point that indicates the degree of product circularity that is necessary for a CBM. A CBM can exist with any degree of product circularity. On a continuum that extends from "fully LE" to "fully circular", the degree of circularity of a product or material may lie anywhere. The circularity of a product is dependent on a variety of variables, including its design, the composition of its materials, its durability, its capacity to be recycled, and the management of its end of life.

Finally, management of SMEs can assist in making informed decisions using the proposed transition plan of technological, financial, societal, and institutional influences regarding the marketing of circular products and ensure that messages are communicated in a transparent manner to increase social awareness and influence consumers' trust and perception, which may favourably shift their behaviour and attitudes towards the circularity premium and the purchase of circular products.

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# Appendix A

Table A1. Relevance of case studies and previous scholarly literature review on business circularity.

Ref.	T.I	F.I	S.I	I.I	Relevance of Case Studies and Scholarly Literature Review
Aamer et al. (2022) [30]			$\checkmark$		To focus on customer awareness of CBMs, e.g., using self-administered questionnaires issued to 361 small enterprises' owners in Yemen.
Salmi et al. (2022) [60]		1	V		To focus on a linear corporate culture and reorganising the financial resources, e.g., 7-Finnish medium-sized fashion brand enterprises were studied in a multiple case study.
Mehrotra et al. (2022) [10]			$\checkmark$	$\checkmark$	To collaborate with consumers, suppliers, and local communities, e.g., a semi-structured interview with start-up founders' promoters in small Indian enterprises.
Pugliero et al. (2022) [34]	$\checkmark$	$\checkmark$			To focus on technological and financial aspect for business model and circularity framework, e.g., cosmetics start-up Brazilian firm.
Kalogiannidis et al. (2022) [58]	$\checkmark$				Digital business practises and innovations boost sustainable solutions, e.g., 200 investors and business owners in Greece's financial industry.
Dragomir et al. (2022) [13]				$\checkmark$	To reduce their environmental effect while enforcing stringent regulations on their upstream supply chain, e.g., case studies of 6 European and US enterprises in the retail industry.
Hofmann et al. (2022) [16]		$\checkmark$			To understand intangible assets, e.g., 2 German small businesses for CBM in-depth interviews and case studies
Galvao et al. (2022) [57]	$\checkmark$	$\checkmark$			Incorporating technological and financial resources, e.g., 40 Interviews business circularity-implemented manufacturing enterprises from Brazil and UK.

Ref.	T.I	F.I	S.I	I.I	Relevance of Case Studies and Scholarly Literature Review
Averina et al. (2022) [32]		$\checkmark$			To achieve financial and value-capture, e.g., using 4 case projects in Sweden and Switzerland to illustrate the CBMs implementation.
Santa-Maria et al. (2022) [11]			$\checkmark$	$\checkmark$	To build culture, and engage and coordinate stakeholders in the business ecosystem, e.g., 10 firms to provide 13 of CBM innovation cases for evaluation in Austria and The Netherlands.
Huynh et al. (2022) [23]	$\checkmark$				To implement digital advances that may help the fashion CBM shift together with incremental advancements, e.g., 10 Norwegian enterprises from three fashion industry digital based CBMs.
Yamoah, et al. (2022) [33]			$\checkmark$	$\checkmark$	To emphasise stakeholder involvement in business circularity that transfers to civil society and public institutions, e.g., 11 top managers of four UK food enterprises were interviewed.
Geissdoerfer et al. (2022) [25]		$\checkmark$		$\checkmark$	To understand market and financial reasons that drive start-ups and diversifications, e.g., analysis of 21 case enterprises (i.e., UK, The Netherlands, Austria).
Fallahi et al. (2022) [15]		$\checkmark$	$\checkmark$		To invest more money and social awareness (i.e., Product-as-a-Service), e.g., 8 financial actors, 2 OEMs, and 6 platform-based services providers in Sweden.
Von Kolpinski et al. (2022) [31]			$\checkmark$		To build strong executive commitment to circularity, specific skills and abilities, and cultural concerns inside and outside the organisation, e.g., 12 selected German enterprises.
Henry et al. (2022) [47]			$\checkmark$	$\checkmark$	To codify socio-political components, e.g., 57 founders of circular start-ups in Europe (The Netherlands, Germany, United Kingdom) and Australia.
De Angelis et al. (2022) [8]	$\checkmark$		$\checkmark$	$\checkmark$	To build digital solutions to achieve technological, societal, institutional factors, e.g., using scholarly literature to develop a conceptual framework from a system thinking perspective.
Chauhan et al. (2022) [18]	$\checkmark$				To build digital technology for CBM transformation, e.g., systematic literature review of 123 selected articles.

Table A1. Cont.

Ref.	T.I	F.I	S.I	I.I	Relevance of Case Studies and Scholarly Literature Review
Gusmerotti et al. (2022) [14]	V			$\checkmark$	To enhance government policies, information, communication, for the business circularity and innovation, e.g., systematic literature review of 31 selected articles.
Uhrenholt et al. (2022) [40]		$\checkmark$			To analyse financial perspective that is clustered into three dimensions—context, supply chain, and company—affect product take-back system financial success, e.g., 97 scholarly articles.
Burmaoglu et al. (2022) [49]	$\checkmark$			$\checkmark$	To evaluate regulation-based and technological change-based techniques for sharing economy, e.g., 97 scholarly articles.
Gil-Lamata et al. (2022) [28]		$\checkmark$			To examine drivers, impediments, business circularity for SMEs to streamline production and resource management, e.g., 89 scholarly articles.

Table A1. Cont.

Note: T.I: technology influence, F.I: financial influence, S.I: societal influence and I.I: institutional influence.

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