



Entrepreneurship for Circularity: Circular Business Model Implementation by Emerging Enterprises

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Abstract

Transitioning to a circular economy demands switching from conventional linear business models to circular enterprises. While we acknowledge the potential benefits of CBMs, their execution, particularly by startups, presents unique challenges. This comprehensive literature review analyzes contemporary research on enterprises toward circularity, stressing the barriers and drivers experienced by new ventures as they implement circular business models (CBMs). This research reviews existing literature to pinpoint key issues across several domains, including financial, organizational, technological, knowledge supply chain, markets, and institutional variables. The analysis reveals various possibilities for future research to enhance our understanding of supporting new firms in shifting to a circular economy.

Keywords: Circular economy, Circular business models (CBM), Cyclical new ventures (CNV), Circular entrepreneurship and Sustainability.

1. Introduction

The decreasing availability of natural resources and growing environmental impacts of business activity demand a shift to a more environmentally friendly and sustainable framework (Demirel & Danisman, 2019; Ghisellini et al., 2016; Kuik et al., 2023; Rigos et al., 2016). The

circular economy (CE) provides an achievable alternative to the classical linear economy by enhancing the efficiency of resources and minimizing waste while preserving value (Kirchherr et al., 2017; Ormazábal et al., 2018). The core concept of the Circular Economy (CE) includes circular business models (CBMs) that stress systems with closed loops, the longevity of products, as well as resource restoration (Geissdoerfer et al., 2017; Kirchherr et al., 2017; Kuik et al., 2023).

Entrepreneurship is vital for supporting the shift to a circular economy (Kanda et al., 2024; Suchek et al., 2022). Emerging businesses, renowned for their responsiveness and innovative perspective, have the perfect opportunity to create new Circular Business Models (CBMs) and promote sustainable development (Kanda et al., 2024; Lit et al., 2024; Panait et al., 2022). However, such cyclical new ventures (CNVs) have specific difficulties compared with established firms (Kanda et al., 2024). This extensive literature review intends to explore the barriers and drivers emerging companies face in embracing Circular Business Models (CBMs).

2. Context

The idea of a circular economy has drawn significant attention in recent years, attracting policymakers, researchers, and corporations (Geissdoerfer et al., 2017, 2020; Ghisellini et al., 2016; Kirchherr et al., 2017). Some research papers have looked into the basic concepts, rewards, and methods for implementing CBMs (Geissdoerfer et al., 2020; Panait et al., 2022; Pieroni et al., 2019). Some researchers have also focussed on the potential of CBMs to boost economic opportunities, increase competitiveness, and encourage Sustainability (Lit et al., 2024; Panait et al., 2022). Small and medium-sized enterprises (SMEs) and new startups face constraints in implementing CBMs (Cullen & De Angelis, 2021; Kanda et al., 2024; Kuik et al., 2023; Rizos et al., 2016). It is essential to understand that many stakeholders face

challenges while formulating the right policies and support structures for facilitating the transition to a circular economy (Rizos et al., 2016).

3. Methodology

The literature review employs a structured method to summarize relevant studies about the adoption of Circular Business Models (CBMs) by new enterprises (Geissdoerfer et al., 2020; Kirchherr et al., 2017; Kuik et al., 2023; Suchek et al., 2022). The evaluation procedure includes the subsequent stages:

- Articulating the research inquiry: The key research inquiry directing this assessment is what principal obstacles impede the adoption of circular business models by emerging enterprises?
- Identifying pertinent databases and search terminology: The review concentrates on peer-reviewed journal papers cataloged in esteemed databases such as Scopus and Web of Science. Search terms include combinations of keywords pertinent to the circular economy, circular business models (CBM), cyclical new ventures (CNV), circular entrepreneurship, and Sustainability.
- Identifying and choosing articles: A bifurcated screening procedure is utilized. Initially, titles and abstracts are evaluated for their pertinence to the study inquiry. Subsequently, full-text publications are assessed for inclusion based on their emphasis on CBMs and new venture contexts.
- Extraction and processing of data: Essential information is derived from the chosen publications, encompassing the categories of CBMs examined, the particular issues recognized, and the suggested remedies. Thematic analysis is employed to classify and integrate the data.

4. Results

The comprehensive literature study identified several significant hurdles that impede the adoption of CBM by new businesses, classified into the following domains:

4.1. Financial Challenges

1. Restricted access to funding
2. Elevated initial investment expenses
3. Ambiguous financial justification for Circular Business Models (CBMs)
4. Challenges in demonstrating the long-term economic Sustainability of access-based models.
5. Perception of service-oriented models as lacking innovation
6. Difficulty in capitalizing on environmental and social value

4.2. Organizational Challenges

1. Insufficient human resources
2. Challenges in forming teams with complementary competencies
3. Administrative challenges associated with managing circular processes
4. Ensuring operational capacity for circular practices

4.3. Knowledge and Technology Challenges

1. Insufficient technical skills in circular principles and practices
2. Restricted access to dependable data regarding material flows and product lifecycles
3. Limited availability of innovative technology for circular processes

4.3. Supply Chain Challenges

1. Issues in procuring superior recycled or reusable materials
2. Increased reliance on external collaborators
3. Insufficient transparency and information exchange within the supply chain
4. Contradictory interests among current stakeholders in preserving linear models
5. Absence of product/service standards for circularity

4.4. Market Challenges

1. Limited consumer awareness and engagement with circular products and services
2. Price competition from products manufactured with inexpensive virgin materials or
Intense competition from established businesses utilizing linear models
3. Difficulties in transitioning Circular Business Models (CBMs) from niche to
mainstream markets

4.5. Institutional Challenges

1. Ineffectual or conflicting policies concerning waste management, recycling, and
material utilization
2. Absence of explicit guidelines and standards for circularity
3. Inadequate governmental support via financial incentives and policies
4. Deficiency in societal awareness and urgency about circularity
5. Tax systems that prioritize linear models over circular enterprises

5. Discourse

This review's findings underscore the diverse hurdles new enterprises encounter in implementing circular business models (CBMs). These obstacles are frequently exacerbated by the disadvantages of novelty and diminutiveness, encompassing restricted experience, resources, networks, and legitimacy (Kanda et al., 2024; Kuik et al., 2023; Rizos et al., 2016). Financial limitations are a significant obstacle that hinders investment in circular economy initiatives (Magdalena et al., 2024). It includes infrastructure, technology, and qualified workers. The absence of a definitive financial business case for CBMs poses a challenge in attracting investors, who may be unaware of circularity's long-term advantages and value proposition (Kanda et al., 2024).

Organizational constraints, such as small teams, restricted expertise, and administrative responsibilities, exacerbate the challenges of adopting CBMs, frequently requiring specialized knowledge and intricate processes (Hoang & Böckel, 2024). Access to suitable technologies and data is essential for enhancing circular processes; nevertheless, new enterprises frequently encounter constraints in these domains (Kanda et al., 2024). The complexity of the supply chain poses a further obstacle, as procuring recycled materials, orchestrating circular processes, and managing partnerships can be complex for emerging enterprises (Kanda et al., 2024). Market acceptance and demand are essential for the success of Circular Business Models (CBMs); nonetheless, new Companies may find it challenging to compete with established linear businesses and to surmount customer reluctance to change.

The institutional context significantly influences the environment in which CBM is adopted. Supportive legislation, explicit instructions, financial incentives, and a comprehensive societal transition toward circularity are crucial for facilitating the success of new enterprises (Kuik et al., 2023; Kuzma et al., 2021; Ormazábal et al., 2018; Panait et al., 2022; Rizos et al., 2016).

6. Prospective Research Avenues

This review reveals multiple prospects for future research.

- Empirical research: Further empirical research is required to examine the distinct hurdles encountered by new businesses in various industries and geographies. Comprehensive case studies can yield significant insights into the practical execution of CBMs and the tactics employed to surmount obstacles.
- Financial models for circularity: It is essential to develop comprehensive financial models and metrics to assess the economic feasibility of circular business models (CBMs). Researchers may try to figure out how to measure the environmental and social benefits of circularity while also showing how circular business models (CBMs) can successfully attract investors in the long term.
- Policy interventions: It is crucial to examine the efficacy of diverse policy instruments in facilitating CNVs. Research may investigate the effects of financial incentives, legislation, public procurement policies, and other interventions on the adoption of CBM and the performance of new enterprises.
- Consumer behavior: Comprehending consumer views and acceptance of circular products and services is essential for market advancement. Research may Focus on identifying factors influencing consumer choices and establishing effective communication techniques to advocate for circularity.
- Ecosystem development: Investigating the function of accelerators, incubators, and additional support groups in promoting CNVs might yield significant insights for cultivating a robust ecosystem for circular entrepreneurship.

7. Conclusion

The shift to a circular economy depends on the practical implementation of circular business models. With their capacity for innovation and disruption, emerging enterprises can significantly influence this change (Kanda et al., 2024; Lit et al., 2024). Nevertheless, individuals encounter substantial obstacles that necessitate focused assistance and conducive settings. This systematic literature review has pinpointed significant obstacles across multiple areas, emphasizing the necessity for additional research and focused initiatives to promote CBM adoption by emerging enterprises.

Confronting these constraints and enabling CNVs is crucial for realizing a circular economy's economic, environmental, and social advantages (Hoang & Böckel, 2024). Future studies must concentrate on comprehending the particular settings and dynamics of CBM adoption by nascent enterprises, devising creative solutions, and cultivating a conducive ecosystem for circular entrepreneurship.

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