

Editorial

Circular Economy Practices in the Context of Emerging Economies

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A circular economy (CE) is a key solution to dealing with resource crises in terms of waste produced and the resources consumed [1]. It reduces the need for raw materials by making better use of existing ones. There is a growing need in the CE for the organizational culture to change toward sustainability. Supply chains can benefit from a CE, which requires a paradigm shift from conventional to sustainable practices. Due to this concern, CE integration has become one of the most critical strategies in developing sustainable supply chains. In order to contribute to the attainment of sustainability objectives in emerging economics, the CE is committed to ensuring sustainable resource management strategies for more efficient resource utilization to preserve the environment, social conditions, and the economy [2]. A sustainable circular economy (SCE), which combines a CE and sustainability, can contribute to energy recovery, resource efficiency, economic growth, sustained consumption, and circularity at the macro level. Digitalization and smart technologies can promote the transition to an SCE, while businesses can perform more efficient, effective, smart, inclusive, and sustainable operations by integrating smart-enabling technologies into the SCE [3,4]. Getting organizations on board with Industry 4.0 will only be possible if they are motivated by a clear understanding of its strategic significance related to the SCE. A smart sustainable circular economy (SSCE) is crucial for management to devote time and resources to knowledge management programs, training, and education. For an SSCE to succeed, it is necessary to identify employees with the appropriate background for implementing advanced technologies. During the CE adaptation process to SSCE, organizations should also understand the importance of interfacing with humans and machines.

To address the above-mentioned requirements, this Special Issue (SI), entitled “Circular Economy Practices in the Context of Emerging Economies”, enabled the transparent and rapid communication of research highlighting different perspectives on the CE such as the “Identification of sustainability criteria for CE in emerging economies”, “establishment of sustainable operations in the context of Industry 4.0 and CE”, “application of CE and industry 4.0 driven technologies in the food supply chain”, “optimizing sustainable supply chain models for CE framework”, and “advanced analysis of AI/ML models for SSCE 4.0 development”. As a result, we received 40 manuscripts, and a majority of the submissions focused on the specified research topics for this SI. Notably, six manuscripts underwent revisions as per the authors’ requests and were subsequently accepted for publication in Sustainability, resulting in an average acceptance rate of 15%.



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The published manuscripts conducted comprehensive analyses of decision analysis approaches, data analysis, optimization, and AI, consolidating the latest advancements in CE modules and sustainability models. These contributions aim to enhance our understanding of effective practices within the framework of emerging economies and offer valuable practical insights. Here are the specific details of the contributions:

- Chishty (Contribution 1) attempted to assess the economic and environmental efficacy of Indian Fast Moving Consumer Goods (FMCG) companies and examine their dependence on technology and circular methodologies using the Structural Equation Modeling (SEM) approach.
- Feng and Goli (Contribution 2) delved into the significant influence of CE practices, which are recognized for promoting sustainability and enhancing resource efficiency. They offered a methodology based on a mathematical model and statistical analysis to investigate the financial performance as an essential metric for evaluating a company's success.
- The circularity and sustainability of fashion brands were examined by Karadayi-Usta and Tirkolae (Contribution 3) by applying the neutrosophic organisation, rangement et synthèse de données relationnelles (ORESTE) technique.
- Interpretive Structural Modeling (ISM) and Matrix of Cross-Impact Multiplications Applied to Classification (MICMAC) techniques were utilized by Soleimani et al. (Contribution 4) to assess the enablers of Green Entrepreneurship as part of CE principles in Iranian SMEs.
- Zhao and Zhao (Contribution 5) employed sample data from Shanghai and Shenzhen A-share listed companies spanning the period from 2008 to 2017. Through an empirical analysis, they investigated the influence of institutional investors' shareholding on earnings management and explored the mechanisms contributing to the enhancement of corporate sustainable development (using Generalized Method of Moments (GMM) regression analysis).
- Zhu (Contribution 6) addressed the simultaneous consideration of both endogenous and exogenous economic components for demand forecasting. Moreover, the stability of machine learning models for energy exporters and importers was examined against varying uncertainties based on the data from 30 countries between 2000 to 2020.

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Conflicts of Interest: The authors declare no conflicts of interest.

List of Contributions

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