

## Effective Information Sharing for Circular Economy Business Models – A Conceptual Paper

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### Abstract

The innovations of circular business models led to changes in the information sharing process and dynamics. The uncertainty from the new material treatment and coordination issues of new stakeholder dynamics poses significant challenges for information sharing methods to distribute adequate and accurate information. Current studies lack the consideration of incorporating advanced information technologies and high-level automation into the information sharing model. This research hopes to establish an effective information sharing model and identify the information sharing requirement to support the business model transformation in the circular economy. This research conducts an extensive literature review to analyse the characteristics of the circular business model and essential information sharing requirements. Building upon information sharing studies in relevant disciplines, this research proposes an information sharing model emphasising the information technologies application. The information sharing requirements were identified for the four critical components of unique information sharing in the circular economy. The stakeholder collaboration and openness are essential to build a trusted network for information sharing. Information availability is critical to generate integrated data for adopting new technologies in the circular economy. Adequate information updating is required to ensure that the shared information is accurate for guiding the decision-making process. Lastly, interoperability is the key to establishing effective technical infrastructure for information sharing. The finding of this research suggests that well-managed information sharing contributes significant value to the design and implementation of circular business models.

**Keywords:** Circular economy, circular business models, information sharing, information technology