

The Retention of Value in a Circular Economy

Drivers and Enablers

Graduate



Nicolas Hofer

Initial Situation: The current economic system threatens life as we know it. It depletes natural resources and is fundamentally unsustainable. Resource scarcity is already an issue for some materials, resulting in supply shortages and increased prices. The concept of a circular economy (CE) has received increasing attention over the last decade. It offers environmental, economic, and social benefits and aims to decouple economic growth from resource consumption. But more importantly, it offers new possibilities to businesses to increase their financial profitability through resource efficiency and product lifecycle-extending activities known as value retention strategies (R). However, the adaption of Rs is said to be slow in Europe, with producing companies being no exception.

Approach: To understand the potential benefits of implementing CE practices into business models, this thesis discusses the concept of retention strategies and provides an overview of 10 specific Rs. Moreover, it connects them to particular value propositions and illustrates with examples the type of waste that can be prevented. As the main contribution to existing literature, the drivers and enablers of Rs are investigated through an extensive literature review from the perspective of European producing companies to construct a framework. The findings are then verified with a survey which was distributed throughout Europe targeting the industry. The goal of the survey is to determine which Rs are implemented by practitioners and to determine the drivers and enablers that play the most significant role in their adoption. Furthermore, the study aims to provide evidence that adopting Rs into the business model can positively affect business performance factors, such as profit, company image, and manufacturing costs.

Result: The literature review identified 16 driving factors and 12 enabling factors that influence the adoption of CE practices. The review also provides insight into the challenges faced by companies as they implement them. The survey results are based on the answers of 512 entities from 32 European countries. The majority of participants were from the manufacturing industry, with 223 holding the position of CEO. From the results, it can be concluded that incorporating Rs into the business model can strengthen business performance factors and increase a company's competitiveness. The survey also revealed that individual Rs are driven and enabled by different factors, providing valuable insight for practitioners looking to boost their company's performance and understand the prerequisites necessary to implement an R.

Advisors

Prof. Dr. Katharina Luban, Prof. Dr. Roman Hänggi

Co-Examiner

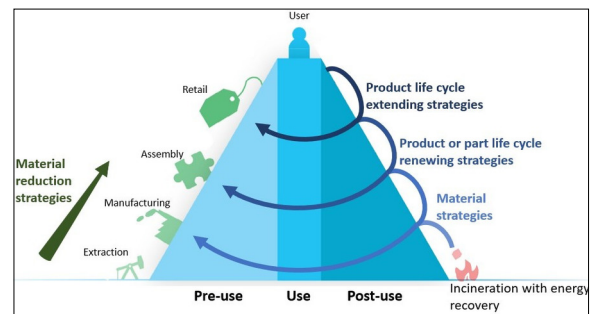
Dr. Urs Hafen, ABB Turbo Systems AG, Baden, AG

Subject Area

Innovation in Products, Processes and Materials - Business Engineering and Productions

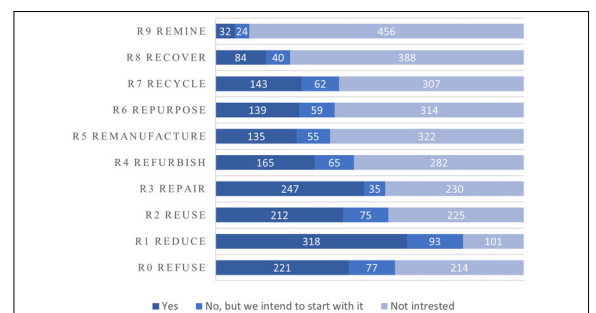
The Circular Value Hill

own representation - adapted from Achterberg et al., 2016



Frequency of Prevalence and Interest in Rs Among Entities (N = 512)

Own presentation



Impact of Circular Strategies on Business Performance Factors (n = 351)

Own presentation

