

ABSTRACT

The coconut industry plays a significant role in the economies of major producing countries such as Indonesia, the Philippines, and Vietnam. Despite the strong potential of coconut shells as a valuable by-product, they remain largely underutilized and are often treated as low-value waste, limiting economic opportunities for upstream actors and contributing to environmental inefficiency. This study aims to develop a sustainable and financially feasible business model for coconut shell utilization by integrating value chain analysis, circular economy principles, and financial feasibility considerations.

A qualitative research approach supported by simplified quantitative financial evaluation was adopted, combining a structured literature review with semi-structured interviews with practitioners from two Indonesian coconut processing companies, PT Coco Reina Global Indonesia and Inari Coco. The findings indicate that coconut shells possess strong potential to be transformed into higher-value products such as activated carbon, biochar, and charcoal briquettes, with growing market opportunities particularly in European and Middle Eastern export markets.

The study concludes that circular economy approaches can simultaneously improve resource efficiency, reduce agricultural waste, and create additional economic value within the coconut industry. The proposed business model demonstrates promising financial viability when supported by stable raw material availability and reliable market demand, while also addressing key sustainability reporting implications relevant to the Corporate Sustainability Reporting Directive (CSRD) for coconut-exporting SMEs seeking access to European markets.

Keywords: Coconut shell utilization, circular economy, sustainable business model, value chain analysis, financial feasibility, activated carbon, biochar, CSRD, Indonesia, small and medium enterprises.