

Circular Economy Require Short-Term Pain for Long-Term Gain? Financial Trajectories of Taiwan Circular Economy Award Winners

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Amidst the global drive toward net-zero carbon emissions, resource scarcity, and increasingly stringent regulations, the circular economy has become a core strategy for corporate sustainability. Nevertheless, enterprises have long sought clarity on when upfront investments in circular economy implementation will yield returns, as well as how such investments can translate into sustained profitability and competitive advantages.

To understand the impact of implementing circular economy practices on corporate revenue and profitability, this study focuses on past awardee enterprises of the Taiwan Circular Economy Awards. The sample selection required enterprises to be listed, OTC or public in the year they received the award, while excluding branch units and awardees for whom complete annual reports for the two years post-award were unavailable (i.e. Enterprises winning awards for the first time in 2025 and 2026). This yielded 22 eligible enterprises. Using the year of their first award as the baseline, annual report data from two years prior to and two years following that year were collected. For instance, if a qualifying enterprise first won the award in 2023, this study collected annual report data disclosed between 2021 and 2025 to examine the cross-period changes in their financial performance from 2020 to 2024.

This study employs a before-and-after self-comparison method alongside descriptive statistics. It observes the year-over-year growth rates and average annual growth rates of three key financial indicators: operating revenue, operating income, and profit before tax. Furthermore, it tallies the number and proportion of enterprises showing positive growth at different stages to analyze the financial trajectories of enterprises promoting the circular economy, while further comparing financial performance across different industries.

Based on the data analysis of these 22 sample enterprises, the following phenomena were observed:

Overall financial trends exhibit a "decline first, then rise" pattern

For most enterprises, the growth in revenue and profitability slowed or turned negative from two years prior to the award year up to the award year itself (Y-1 to Y1).



However, this trend recovered or rebounded from the award year to the year following it (Y1 to Y2). This suggests that implementing circular economy initiatives may involve short-term cost pressures, with operational benefits being deferred.

It is worth noting that many of the before-award years coincided with the intertwined periods of the trade war, the pandemic, and inflation. The relationship between the before-award slowdown or negative growth and circular economy investments warrants further research. Additionally, the subsequent recovery in profitability may be attributed not only to cost control and the optimization of profit structures, but also to factors such as brand premiums generated by winning the award, entry into the supply chains of major international corporations, and government incentives and subsidies. These aspects also merit further exploration.

Overall profitability outperforms revenue scale expansion

The proportion of enterprises showing positive average annual growth in operating income and profit before tax (72.7% and 77.3%, respectively) was higher than that for operating revenue (63.6%). This indicates that awardee enterprises achieved better results in cost control and profit structure optimization than in expanding their revenue scale. Thus, the circular economy has a more pronounced effect on enhancing the quality of corporate profitability.

Significant differences in financial performance across industries

As some industries had only one sample enterprise or their profitability is easily disrupted by macroeconomic factors, results for these sectors should be considered for reference only. The manufacturing sector—particularly textiles, electronic components, and pulp, paper, and paper products—demonstrated more significant profitability optimization. By reusing waste materials, boosting energy efficiency and developing green products, these manufacturers directly lower marginal production costs and raise product added value. In contrast, the apparel and clothing, as well as food and feed industries, may face slower conversion of economic benefits due to complex consumer-end recycling systems and the instability of biomass materials, reflecting disparities in the effectiveness of circular technology applications across sectors. For water supply and pollution remediation operators, revenue growth is directly driven by regulatory mandates for waste treatment services, yet substantial capital outlays for equipment and high operating costs constrain profitability.