

ABSTRACT

This research aims to develop a model for profit distribution in the coconut agro-industry supply chain in West Adonara District, East Flores, focusing on fair pricing, efficient cost management, and business process improvement. The imbalance in profit distribution among farmers, middlemen, and collectors has become a significant issue in this industry, as reflected in substantial disparities between costs and incomes. By integrating Cooperative Stackelberg Game into the analysis, this study models the strategic interactions among stakeholders to find optimal solutions in the profit distribution game. The calculations reveal a pronounced imbalance between costs and incomes, with a ratio of 1:4.09 for farmers, 1:12.87 for middlemen, and 1:7.78 for collectors. To address this imbalance, the research suggests a collaborative approach by implementing cooperative negotiation concepts and collaborative strategies. Nash equilibrium analysis and strategic scenario simulations are employed to formulate optimal profit distribution solutions while enhancing transparency and establishing clear contractual agreements among stakeholders. Furthermore, the study advocates for business process innovation to improve operational efficiency. The application of this model is expected to create a better balance in profit distribution, yielding positive impacts on income and the sustainability of the coconut agro-industry. The findings and recommendations of this research provide guidance for industry stakeholders, government entities, and related stakeholders to achieve a fair and sustainable profit distribution in the coconut agro-industry supply chain.

Keywords: *Profit distribution, Coconut agro-industry supply chain, Cooperative Stackelberg Game, Cost efficiency*