

Strategic Alliance Model of High-Value Vegetable Agroindustry

Model aliansi strategis agroindustri sayuran bernilai ekonomi tinggi

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Abstract

Vertical cooperation among business entities of high value vegetable supply chain has been studied to design a strategic alliance model of vegetable agroindustry. The study focuses on inter-organizational coordination among farmer, processor and customer of high value vegetable to be sold at premium market, i.e. export and supermarket chain. Decision-making computational models used were Analytical Hierarchy Process (AHP), Independent Preference Evaluation (IPE), and Interpretative Structural Modeling (ISM). Vertical cooperation in existing high value vegetable supply chain was still traditionally coordinated on a short-term basis. The partnership quality ranged between potential to good, with potential conflict caused by unequally distributed risk. The supplier-customer interdependencies were about equal, which gives opportunities to establish a strategic alliance of vegetable agroindustry. Institutions identified as having high driver power in the establishment of strategic alliance were exporter, supermarket chain and processor. The main milestone in the establishment will be the variation of objectives among members as a result of their education levels, experiences and knowledge. Optimum profit as the "true objective" of strategic alliance's member is agreed to achieve only if cooperation and operational performance has been achieved. The designed model of strategic alliance of vegetable agroindustry composed by three main institutions, i.e. processor, exporter and supermarket chain. Farmer is positioned as the main partner of the agroindustry who gets a direct benefit from the cooperation. Performance of strategic alliance was evaluated based on the implementation progress of the business plan in each member organization by using a balanced scorecard. Aggregation to get the final score of the performance was done by using the independent preference evaluation technique. To assist the financial analysis of the strategic alliance model and to do the aggregation of the performance scores, computer software (Financial Analysis for Strategic Alliance of Vegetable Agroindustry/FAstraVA and Performance Evaluation for Strategic Alliance of Vegetable Agroindustry/PEstraVA) were developed. Application of the model in the case of edamame and paprika by using data and information collected in 2001 proved that the model is implementable. Strategic alliance of edamame agroindustry increases the profit margin of the supply chain of edamame from 8 percent to 16 percent and the performance of the whole chain by 345 percent, operational cost of edamame for export is equivalent with the rate of Rp.8.980/US\$, and edamame farmers increase their profit from 7 percent to 22 percent. In the case of paprika, strategic alliance model distributes the margin and the marketing risk as expected by the member, increases the performance of the supply chain by 233 percent, and operational cost of paprika for export is

equivalent with the exchange rate of Rp.8.300/US\$. Implementation of the model should be supported by a deep study on integration of small farmers to form an economically feasible farm unit for vegetable production. Government support to facilitate the establishment of the broker and its institution is needed to assist the establishment of strategic alliance of vegetable agroindustry, especially on its first stage.