Strategic IBP & Supply Chain Sustainability

Jerry Bendiner

Alquería (Productos Naturales de la Sabana S.A.S.) is one of the most influential business organizations in the Colombian dairy market. Founded in 1959, it manufactures and distributes dairy products and beverages through a supply chain network composed of 7 processing plants and 21 distribution centers.

Competitive pressures and the need to reduce costs led to a review of the company’s distribution network in Bogotá, Colombia’s capital city plagued by traffic congestion and environmental challenges. Motivated by Alquerías’s strong corporate commitment to sustainability, balancing fiscal and environmental objectives became the driving force of the study and the evaluation of alternative network options.

A mathematical programming-based model was implemented to optimize and compare the various network configurations and minimizing total CO2 emissions replaced total costs as the model’s optimization objective. The results have been very rewarding. A redesigned configuration that combines a brand-new distribution center and a pair of cross docks will have a very positive impact on overall network profitability while at the same time reducing total CO2 emissions by over 30%.

In this presentation we will outline the problem, the challenges we faced, and the methodology applied to model and optimize the network and how it can be used within the context of strategic IBP.

ABOUT THIS SPEAKER

Jerry has over 30 years of business experience in logistics consulting and supply chain modelling. His main area of expertise is the application of quantitative techniques and practical approaches to analyze and solve complex supply chain problems. Jerry holds an M.Sc. degree in Management Sciences and has participated as a speaker and lecturer in major conferences and seminars in North America, Europe and South America. He is a member of the Association of Professional Engineers of Ontario and The Council of Supply Chain Management Professionals.