

Application Modeling for Sustainable Supply Chain Coffee Trade in Indonesia using the Analytical Hierarchy Process

Tri Pujadi

School of Information systems
Bina Nusantara University
Jakarta, Indonesia
tripujadi@binus.edu

Bahtiar H. Simamora

Department of Management, Binus Business School
Bina Nusantara University Jakarta, Indonesia
bsimamaora@binus.edu

Adhi Nugroho Chandra, Henricus Bambang Triantono, Seprihadi Natanael, J Rolles

Sihombing

School of Information systems
Bina Nusantara University
Jakarta, Indonesia

nugroho@binus.ac.id, henricusbambang@binus.ac.id, seprihadi@binus.edu,
rolles.herwin@binus.ac.id

Abstract

The supply chain activities of the coffee agroindustry in Indonesia involve several stakeholders, namely farmers, collectors, processors, and distribution to consumers. The government has established a project management office (PMO) to build a sustainable ecosystem related to the supply chain. Sustainable supply chain activities are economic, social, environmental, and technological management activities.

The purpose of this study is to analyze the supply chain mechanism, measure and assess the sustainable supply chain performance index in the agroindustry using SCOR-AHP (Supply Chain Operations Reference-Analytical Hierarchy Process). Furthermore, identify the supply chain of agroindustry, analysis of added value, measurement, and assessment of sustainable supply chain performance index in agroindustry, using the Multi-Dimensional Scaling (MDS) technique. The results of the analysis are used for developing a web-based decision-making system model in measuring and evaluating performance

Keyword

Sustainable Supply Chain, value added, performance index, AHP, MDS.