

Determination of Independent Surveyor for Coal Trader using Analytical Hierarchy Process and TOPSIS methods in Indonesia

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Abstract

Due to the fact that Indonesia's commodity trade of coal is particularly appealing in the current state of the global market, the independent surveyor service industry is expanding. In order to ensure their business transactions, miners, sellers, and buyers can benefit greatly from independent surveyor services. The objective of this work is developing decision support system in selection different surveyor services using Analytical Hierarchy Process (AHP) and Technique for Order Preferences by Similarity to Ideal Solution (TOPSIS) method. The data is collected from 5 coal trading companies (local and export) in Indonesia. The determination of criteria and sub-criteria is built on coal in Indonesia with closed and semi-open questionnaires. Results from this study show that company reputation, prices, quality & quantity, and services sharing influence the selection of independent surveyor. Every variable has a significant influence.