

## SUMMARY

NOPARIZAL. Coal Supplier Selection of PT SCG Trading Indonesia with Green Supplier Selection Approach. Supervised by SYAMSUL MAARIF and YANDRA ARKEMAN.

Green suppliers have become one of important issues for environmental protection because the increasing pollution issues by the current coal mining industry. In order to overcome the negative impacts of environmental pollution issues by mining industry, supplier selection activities that consider environmental and corporate social responsibility (CSR) or ethical criteria may be seen as an important part of Green Supplier Selection or GSS concept. To meet the specifications of coal from customers (Group companies and retail), PT SCG Trading Indonesia must select suppliers that meet the required criteria.

This research was conducted by quantitative method through questionnaire to five internal and external experts who directly deal with suppliers and experienced in coal trading. The results of expert questionnaires become the basis for determining priority of companies that have met criteria of green coal suppliers by using Analytical Hierarchy Process (AHP) method.

PT SCG Trading Indonesia currently still uses traditional criteria like mine, quality and logistics (delivery). As for the assessment is only done by method of rating / assessment with final total score of 100 points. The result of weighting the main criteria using AHP method used in this study shows Mine criteria (0.257) and Quality (0.188) is still a top priority in selection of supplier criteria. Interesting to note that Safety (0.181) and Green Activity (0.126) are ranked the third and fourth rank. Similarly, results of sub-criteria weighting showed that eight sub-criteria, OHSAS 18001 certification, Norm and Safety Policy, and Waste Management of Mining and hazardous and toxic materials have high enough value that is 0.079, 0.060 and 0.058. This is in line with respondents' knowledge in the mining company's policy to conduct good mining practices.

Based on the AHP weighting results on eighteen sub criteria shows Adaro achieved highest point with 38% compared to Kideco 27% and Berau Coal 22%. Five sub-criteria obtained by Adaro are Production Capacity 0.499, Mine Design 0.461, Coal Reserves 0.434, Safe Business Practices 0.417, and Philanthropy Activities, 0.386. Kideco was selected as second priority supplier, from which five highest sub-criteria obtained were Norms and Safety Policy of 0.300, Environmental Management System 0.294, Accuracy of Load Time 0.293, Coal from Own Mine 0.292, and ISO 14001 Certification 0.289. While Berau Coal was chosen as third priority supplier. Top five sub criteria are Load Method 0.288, have their own QC team 0.276, Coal from Their own Mine 0.252, Norms and Safety Policy 0.252, and OHSAS 18001 Certification 0.242.

Implementation of green supplier selection methods in company's activities will provide benefits and constraints. The benefits are to get better quality and meet buyer's specifications and requirements, social image that can reduce image of mining industry that damage environment, reduce costs, product delivery time management, better business relationships, improvement and development opportunities and company will have list of suppliers who meet criterias. While the challenges facing company are process of selecting green suppliers that require

more time, lack of knowledge and experience in implementation of new systems and need for new technologies for implementation process

**Keywords:** AHP, *Analytical Hierarchy Process*, coal, green supplier, green supplier selection, PT SCG Trading Indonesia.

