

ABSTRACT

A Decision Support System for Supplier Selection of Product Packaging Materials using the AHP Method

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The selection of plastic packaging suppliers in food manufacturing companies is currently only based on the cheapest price without considering other criteria, and the decision is made by one department only. This causes many rejected products to be produced and is detrimental to the company because the final achievement results will be calculated using the raw materials used during the production process. This research aims to develop a decision support system for selecting plastic packaging suppliers as the final packaging process in food manufacturing companies. This research uses the analytical hierarchy process (AHP) method which compares quality, delivery, service and certification criteria to determine the best supplier. The research results show that the AHP method helps in comparing and evaluating alternative suppliers based on predetermined criteria and sub-criteria, producing a ranking that can be used as a reference in decision making. In conclusion, the AHP method has proven to be effective in assisting supplier selection mechanisms in food manufacturing companies. By using AHP, the system can carry out objective calculations and assessments of various suppliers based on predetermined criteria, namely quality, service, delivery and certification.

Keywords: Decision Support System, Supplier Selection, Analytical Hierarchy Process (AHP)

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