

ABSTRACT

Decision Support System for Furniture Company Supplier Selection Using Analytical Hierarchy Process

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Quality is one of the main factors for consumers in choosing and using a product. One of the efforts to maintain the quality is to choose the right supplier. The performance of the supplier will affect company performance. PT. Bintang Mebel Indo is an industrial and manufacturing company that produces furniture products. In practice, there are many problems with the production process. One of the problems is the difficulty of choosing suppliers. When choosing a supplier, PT. Bintang Mebel Indo struggled as they don't have a system that can process various suppliers with various specifications.

Problems likeThe problems of the presence of numerous-diverse suppliers and lack of a standardized method or system can be overcome in various ways, one of which is by using a computer system namely decision support system. In this research, Analytical Hierarchy Process (AHP) will be used as the method for the decision support system. In this research, AHP will be used for weighting the criteria.

The system results are in the form of ranking of the recommended supplier. The system's rankings consistently show that Samudra Perkasa Jati performs best among the suppliers for most criteria. User acceptance testing resulted in a 76% approval rate. Based on these results, the DSS with AHP method is suitable for supplier selection in a furniture company.

Keywords — Supplier selection, decision support system, AHP.