ABSTRACT

Serela Hotel Cihampelas is one of the hotels under the umbrella of KAGUM Hotels, one of the leading groups in the Indonesian hospitality industry. Serela Hotel Cihampelas was chosen because it already has its own waste management system. The hotel disposes of its own waste because the waste collection trucks owned by the Bandung City Environmental Agency often arrive late to collect the hotel's waste. This can lead to waste accumulation in the hotel area. Therefore, Serela Hotel Cihampelas conducts its own waste disposal process to manage the hotel's waste. This final project designs a Decision Support System (DSS) to determine the disposal and management of hotel waste. The data collection phase includes primary data through direct observation and interviews at Serela Hotel Cihampelas, as well as secondary data related to hotel waste management and information about waste disposal and management sites in the Bandung City area. The data was processed using the Hierarchy Process (AHP) method for criterion weighting and the Simple Additive Weighting (SAW) method for calculating the final decision value. The integrated system design phase was carried out using the Waterfall method, covering the identification of system-related requirements, system design using Unified Modeling Language (UML), and system interfaces. The system verification phase will use Black Box Testing and manual calculation comparisons on decision outcomes, followed by the validation phase with User Acceptance Testing (UAT) for the stakeholders, namely Serela Hotel Cihampelas, particularly the Cleaning and Environmental Management Division. The UAT conducted yielded very good results. The implementation of a decision support system can provide recommendations on waste management and disposal locations based on criteria for Serela Hotel Cihampelas, especially to the Waste Management and Disposal Division.

Keywords: Waste Disposal, Waste, Simple Additive Weighting, Support System, Waterfall.