

ABSTRAK

Penelitian ini bertujuan untuk membangun Sistem Pendukung Keputusan (SPK) pemilihan gedung pernikahan berbasis web di Daerah Istimewa Yogyakarta menggunakan metode *Rank Order Centroid (ROC)* dan *Simple Additive Weighting (SAW)*. Permasalahan dalam pemilihan gedung pernikahan terletak pada banyaknya alternatif yang tersedia serta beragamnya kriteria yang harus dipertimbangkan, seperti harga, kapasitas, fasilitas, dan lokasi. Metode ROC digunakan untuk menentukan bobot kriteria berdasarkan tingkat prioritas pengguna, sedangkan metode SAW digunakan untuk melakukan proses normalisasi dan perangkingan alternatif. Sistem dikembangkan menggunakan React.js, PHP, Python, dan *local storage*. Hasil penelitian menunjukkan bahwa sistem mampu menghasilkan rekomendasi gedung pernikahan secara objektif, sistematis, dan sesuai dengan preferensi pengguna. Selain itu, hasil pengujian menunjukkan bahwa perubahan urutan prioritas kriteria mempengaruhi bobot yang dihasilkan dan berdampak pada perubahan hasil rekomendasi. Dengan demikian, sistem yang dikembangkan mampu memberikan rekomendasi yang fleksibel dan adaptif sesuai kebutuhan masing-masing pengguna. Pengujian fungsionalitas menunjukkan seluruh fitur sistem berjalan dengan baik, sedangkan pengujian usability menunjukkan bahwa sistem layak digunakan sebagai alat bantu dalam proses pemilihan gedung pernikahan.

Kata Kunci: Sistem Pendukung Keputusan, Pemilihan Gedung Pernikahan, *Rank Order Centroid*, *Simple Additive Weighting*, Sistem Berbasis Web.

ABSTRACT

The selection of a wedding venue is a decision-making process that involves multiple criteria and requires careful consideration. The large number of available wedding venues in the Special Region of Yogyakarta often makes it difficult for prospective users to determine the most suitable option based on their needs and preferences. This study aims to develop a web-based Decision Support System (DSS) for wedding venue selection by integrating the Rank Order Centroid (ROC) and Simple Additive Weighting (SAW) methods. The system evaluates four main criteria, namely price, capacity, facilities, and location. The ROC method is used to determine the weight of each criterion based on the user's priority ranking, while the SAW method is applied to normalize data and rank the available alternatives. The system was developed using React.js as the frontend, PHP and Python as the backend, and local storage as the database management system. The results of the study indicate that the proposed system is capable of generating wedding venue recommendations objectively and systematically based on the selected criteria. Furthermore, the findings show that changes in the priority order of criteria produce different criterion weights and directly affect the recommendation results generated by the system. This demonstrates that the system can provide flexible and adaptive recommendations according to the preferences and requirements of each user. Functional testing confirmed that all system features operated properly, while usability testing indicated that the system is feasible and effective as a decision-support tool for selecting wedding venues.

Keywords: *Decision Support System, Wedding Venue Selection, Rank Order Centroid, Simple Additive Weighting, Web-Based System.*