

ABSTRAK

Skincare merupakan produk yang digunakan untuk merawat kulit. Pemilihan produk skincare disesuaikan dengan kebutuhan kulit para pengguna. Banyaknya variasi produk skincare yang tersedia saat ini sering kali membuat pengguna skincare merasa bingung dengan produk skincare yang cocok untuk kulit mereka. Oleh karena itu, dengan adanya sistem rekomendasi produk skincare, para pengguna dapat sedikit terbantu untuk memilih produk yang cocok untuk kulit mereka. Sistem rekomendasi dalam penelitian ini berbasis graph dengan menerapkan metode *Biclique Similarity Ordering Recommendation* (BISOR) untuk menghasilkan rekomendasinya. Proses rekomendasi akan melalui beberapa tahapan yaitu *preprocessing* (meliputi *case folding*, *removing punctuation*, dan *tokenizing*), merepresentasikan data ke dalam bipartite graph, dan menentukan *maximal biclique*. Hasil rekomendasi diperoleh dari hasil *maximal biclique*. Setelah mendapat hasil rekomendasi akan dilakukan evaluasi untuk mengukur relevansi hasil rekomendasi dengan menggunakan Precision, Recall, Average Precision, dan Reciprocal Rank. Berdasarkan hasil pengujian, sistem rekomendasi mampu mengimplementasikan *Biclique Similarity Ordering recommendation* (BISOR) dan memberikan rekomendasi produk skincare yang cukup akurat.

Kata kunci: Sistem rekomendasi, Skincare, *Biclique Similarity Ordering Recommendation* (BISOR), Precision, Recall, Average Precision, Reciprocal Rank

ABSTRACT

Skincare is a product used to care for the skin. The selection of skincare products is adjusted to the skin needs of the users. The many variations of skincare products available today often confuse skincare users about which skincare products suit their skin. Therefore, with a skincare product recommendation system, users can be slightly helped to choose the right product for their skin. The recommendation system in this research is graph-based, and the Biclique Similarity Ordering Recommendation (BISOR) method is applied to produce its recommendations. The recommendation process will go through several stages, namely preprocessing (including case folding, removing punctuation, and tokenizing), representing data into a bipartite graph, and determining the maximal biclique. The recommendation results are obtained from the maximal biclique result. After getting the recommendation results, an evaluation will be carried out to measure the relevance of the recommendation results using Precision, Recall, Average Precision, and Reciprocal Rank. Based on the test results, the recommendation system can implement the Biclique Similarity Ordering recommendation and provide fairly accurate skincare product recommendations.

Keywords: Recommender system, Skincare, Biclique Similarity Ordering Recommendation (BISOR), Precision, Recall, Average Precision, Reciprocal Rank.