ABSTRACT

The development of Industry 4.0 has driven the growth of wearable device usage, especially smartwatches, which have become increasingly popular due to the trends of healthy living and digital lifestyles in Indonesia. A smartwatch is a smart wristwatch device equipped with advanced features such as health monitoring, message notifications, GPS, and connectivity integrated with smartphones. The increasing variety of smartwatch products has led consumers to face difficulties in choosing the smartwatch that best meets their needs and preferences. Issues arise because each product has its strengths and weaknesses in criteria such as price, battery life, resistance, connectivity, and compatibility.

This research aims to develop a Decision Support System (DSS) based on the Simple Additive Weighting (SAW) method to assist users in selecting smartwatches more objectively and efficiently. The SAW method was chosen for its capability to calculate preference values based on normalization and weighting of each criterion, resulting in recommendations in the form of ranked products best suited to users' needs. The developed system is expected to enhance the accuracy and efficiency of decision-making, thereby assisting users in obtaining the optimal smartwatch selection aligned with their personal preferences.

Keywords: Smartwatch, Decision Support System, Simple Additive Weighting (SAW).

ABSTRAK

Perkembangan Industri 4.0 telah mendorong pertumbuhan penggunaan perangkat *wearable*, khususnya *smartwatch*, yang semakin populer seiring tren hidup sehat dan gaya hidup digital di Indonesia. Smartwatch adalah perangkat jam tangan pintar dengan fitur canggih seperti pemantauan kesehatan, notifikasi pesan, GPS, dan konektivitas yang terintegrasi dengan *smartphone*. Meningkatnya variasi produk *smartwatch* menyebabkan kesulitan bagi konsumen dalam memilih smartwatch yang paling sesuai dengan kebutuhan dan preferensi mereka. Permasalahan muncul akibat setiap produk memiliki kelebihan dan kekurangan pada kriteria seperti harga, ketahanan baterai, resistensi, konektivitas, dan kompatibilitas.

Penelitian ini bertujuan untuk membangun Sistem Pendukung Keputusan (SPK) berbasis metode *Simple Additive Weighting* (SAW) untuk membantu pengguna dalam proses pemilihan smartwatch secara lebih objektif dan efisien. Metode SAW dipilih karena kemampuannya dalam menghitung nilai preferensi berdasarkan normalisasi dan pembobotan dari setiap kriteria, sehingga menghasilkan rekomendasi berupa peringkat produk terbaik sesuai kebutuhan pengguna. Sistem yang dikembangkan diharapkan mampu meningkatkan akurasi dan efisiensi dalam pengambilan keputusan, sehingga membantu pengguna memperoleh pilihan *smartwatch* yang optimal sesuai preferensi personal mereka.

Kata kunci: *Smartwatch*, Sistem Pendukung Keputusan, *Simple Additive Weighting* (SAW).