

ABSTRACT

Today, new products with different functions and features is easy to find. This makes consumers in doubt when they have to decide which product that the specifications and features meet their expectations. Recommender system is a system that can help and guide users to find the appropriate products. Conversational recommender system (CRS) is a form of recommender system that is able to refine the user's preferences through the conversation mechanism. User preference refinement can be done based on user feedback against the products recommendation. User feedback on recommended products, called critiquing technique. Compound critiquing technique has been developed to ensure the efficiency of interaction in CRS. However, the compound critiques provided refers to technical features of the product. Not all consumers are familiar with the technical features, especially the hi-tech products. This research, attempts to develop functional requirement-based compound critique. With this approach, interaction user-system refers to functional requirements of the products, so it does not require users to be familiar with technical features. This approach was evaluated from the aspect of recommendation accuracy, query refinement and user satisfaction. The evaluation results involving 88 users (familiar or not familiar with the technical features) showed that this approach was successful to increase positive perception of users compared to recommender system commonly used in e-commerce. Moreover, this approach also obtained high recommendation accuracy (89.77%) and success to refine user preference efficiently.

Keywords: Compound Critiquing, Conversational Recommender System, Functional Requirement, Ontology, Recommender System.