ABSTRACT

The E-SPPD app is an application that has a function to book lodging and transportation for internal business trips of the Indonesia National Electricity Company (PLN). The E-SPPD PLN app has a rating below 4, while the average application rating on google play is above 4. Previous studies evaluated applications with system usability scale (SUS) and k-means, but the results were limited because SUS only assessed the usability of the application without showing where the shortcomings were. While this study has a problem, namely finding where the shortcomings of the E-SPPD app are, the questionnaire used to measure user experience (UX) is the user experience questionnaire (UEQ) and k-means as an algorithm for UX data clustering. Based on the discussion above, the purpose of this study is to assess the UX of the E-SPPD app using a UEQ questionnaire and divide the UX preference data using the k-means algorithm. The research was carried out at PLN West Sumatra Distribution Unit, with the target respondents of all E-SPPD app users in West Sumatra province. Based on data analysis and research results, the E-SPPD app has positive evaluation results for all aspects and categories and gets an Excellent score for all aspects except the novelty aspect. The most optimal number of groups or clusters of UX data is 5 clusters.

Keywords: User Experience, Data Clustering, K-Means, UEQ, E-SPPD