

Abstract

PT. Pemuka Sakti Manis Indah (PT. PSMI) is a sugar factory located in Lampung which is in building phase. In those phase, there are needs to procure things for the operationality of this factory. Concerning cruciality of this matter, because involving budget and smoothness of production process of the factory, so we suggest a tool to support the decision process to every involved part on those process in PT. PSMI.

One of the method that can be used in multi attribute decision making is Superiority Index. In this method, scoring from user will be calculated to get the sequence for attribute of each alternative, after that superiority index will be determined based on the rules.

Based on manual testing, we get the same result as calculation from the application, so we consider that application is right from algorithm side. Based on method testing with analyzing the appropriateness application result with PT. PSMI decision, we got result which is 100 % correct from 5 sample case, so we conclude that application that we build is reliable for procurement in PT. PSMI. Based on result of costumer satisfaction index testing which held in location of case study with 6 respondent, we got average costumer satisfaction index as 86,66 %, which means that Decision Support System which is made has been fulfilling customer needs.

Keywords : Superiority Index Method, Decision Support System, Procurement